SECOND ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF THE

STATE OF CONNECTICUT,

FOR THE

Fiscal Year Ending November 31, 1879,

WITH THE

REGISTRATION REPORT, 1878,

RELATING TO

Returns of Births, Marriages, Deaths, and Divorces.

PRINTED BY ORDER OF THE LEGISLATURE.

HARTFORD:
THE CASE, LOCKWOOD & BRAINARD CO., PRINTERS.
1880.

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State of Connecticut.

OFFICE OF THE
SECRETARY OF THE STATE BOARD OF HEALTH,
STATE HOUSE, HARTFORD, Dec., 1879.

To His Excellency CHARLES B. ANDREWS, *Governor of the State of Connecticut.*

SIR: In compliance with the laws of this State, I have the honor to present to you the accompanying report for the fiscal year ending November 30, 1879.

Very respectfully,

C. W. CHAMBERLAIN, M.D.,
Secretary of the State Board of Health.

MEMBERS OF THE BOARD.

	Term expires.
John S. Butler, M.D., President, Hartford,	July, 1880
A. C. Lippitt, New London,	" 1880
A. E. Burr, Hartford,	" 1882
R. Hubbard, M.D., Bridgeport,	" 1882
C. A. Lindsley, M.D., New Haven,	" 1884
Prof. W. H. Brewer, New Haven,	" 1884

C. W. Chamberlain, M.D., Hartford, Secretary.

GENERAL REPORT.

The past year has brought forcibly to public attention the close connection between public health and material prosperity. The prostrating effects of a general epidemic upon the business of a city, and the influences checking growth and development, as well as the direct losses involved, have been plainly illustrated. The lessons derived from the wide-spread epidemic of the previous year were startlingly emphasized and enforced. The unsanitary condition of very many populous places, and the neglect of the laws of public health, as shown by the almost universal contamination of air, soil, and water, in all the places invaded, was evidently one of the most important causes in producing the epidemic of 1878, if not the producing agency. The outbreak of the fever in 1879 in Memphis, where the local conditions were undeniably worse than in the other southern cities, its localization there by quarantine, and the perfect control of repeated outbreaks in New Orleans by well-enforced sanitary measures, afford striking illustrations of sanitary laws, that pollution of the requisites for healthy life cannot proceed with impunity, as well as the power to prevent the outbreak of diseases that once developed cannot be controlled. The remark of Col. Waring at Nashville, "that yellow fever is, after all, one of our minor diseases," is significant. We hardly realize that unsanitary conditions in a quiet way destroy multitudes each year, while epidemics are infrequent, and the mortality, though strikingly impressive, is but slight in comparison to the waste of life from preventable diseases, the results of neglect of sanitary regulations. Consumption, diphtheria, scarlet fever, typhoid fever, and like diseases cause the needless loss of many lives, but they attract little attention, and the accumulations of filth continue to increase, unless some epidemic occur, and even then a partial recurrence may be required to induce action.

Yellow fever occurred in several places in this State in earlier years, and a few years ago there were four deaths from this dis-

ease in New London, from a ship that ran into that port to evade the quarantine at New York. One death was reported in 1878 from Stonington, from yellow fever, but on investigation it was found that the captain of the ship visited an infected port, was taken with yellow fever, died, and was buried at sea.

The Board were consulted by various local health organizations with reference to refugees from Memphis, and in several instances where carpets and bedding had been used in connection with yellow fever cases in 1878, it was recommended that these goods lie unpacked until winter, and be then disinfected and aerated. This course was pursued in regard to unpacking the goods, which were stored until the winter months. There were quite a number of refugees in Connecticut from Memphis.

THE IMPORTATION OF RAGS.

New Haven is the only port in this country that receives whole cargoes of rags. These come for the most part from Egypt—the companies have an agent there and extensive shipments are made. The principal garment of a large part of the population is a long cotton robe reaching from head to feet nearly, hence cotton rags are abundant. These rags are torn up and pressed into bales at Alexandria. Upon the outbreak of the Oriental plague fears were entertained lest the disease might be imported through the medium of these rags. The companies were conferred with, and orders given that no further collections be made from the infected region or southern Russia. The port of New Haven was visited, and it was there ascertained that, owing to the time required for the trip, the cargoes of the vessels under way and loading must have been collected before the outbreak of the plague. The subject was brought to the attention of the National Board of Health, which issued an order relating to the disinfection of cargoes from infected ports. Similar action was taken by the quarantine authorities in Great Britain. If disease could be conveyed in this manner, the danger would be where the bales are opened at the paper mills, as the rags are imported in closely pressed bales. The health of the sailors on these vessels was investigated, and no cases of sickness discovered while in port, and apparently none at sea. The reports generally from the manufactories in this State show that small-pox is the only disease that has been communicated by rags, and that from domestic rags in a few instances; the law obliges all operatives in paper mills to be vaccinated, and it is recom-

mended to mill overseers that the law be strictly enforced. The British government appointed a commission to investigate the transmission of disease by rags, and as a result of inspection of the principal mills in England, and the records for a long period, extending over twenty years, no other disease than small-pox was found to have been communicated, that is as in this country, no other epidemic contagious disease. Of necessity, researches on other forms would be incomplete, uncertain, and unsatisfactory.

SCARLET FEVER IN THE ORPHAN ASYLUM.

A few years ago there was a rather mild epidemic of scarlet fever in the Hartford Orphan Asylum, then occupying its old quarters on Washington street. The type of the disease was not particularly severe, but every child that was admitted subsequently had scarlet fever, but no other cases developed from these, although all the inmates did not have the fever in the first instance. It was considered an undesirable state of things to continue, and the aid of the Board of Health was invoked. It was directed that all the articles of bedding, carpets, curtains, and woolen articles generally that had in any way been connected with cases of scarlet fever be brought into one room and disinfected by burning sulphur, and specific directions were given as to the quantity to be used for a room of a given size. The iron and wood-work of the furniture was ordered to be repainted after disinfection, the woolen articles to be thoroughly aerated. These directions were well carried out and no further cases of scarlet fever occurred, neither was the disease transmitted to the new building where the asylum was in a few months afterwards removed. Several admissions had meanwhile taken place. The inmates slept in large dormitories which were then frequently white-washed, so that no infection would be liable to linger in the walls, but apparently in the bedding.

PROMINENT FORMS OF DISEASE.

The general health of the State during the year 1879 has apparently been for the most part satisfactory. Malarial diseases have been decidedly prevalent, involving new territory at apparently a pretty uniform rate. Some discussion of malarial fevers in the Quinnipiac valley will be found in the special reports. The fatal forms are congestive fevers, typho-malarial, and bilious remittent. The ill effects of malarial diseases are not to be estimated alone by the death rate, as the proportion of fatal cases is slight.

The number of acute cases does not, when also included, entirely cover the case, as these diseases readily become chronic, tend to recur and linger, preceded and followed by a period of malaise that interferes to a great degree with health and comfort, and also lessens very materially the working capacity, and the hours that can be spent in labor. Their effects are seen also in other diseases, persistent enlargement of the liver and spleen, malarial rheumatism, and a peculiar form of spinal tenderness; indeed, the connection between malarial disease and cerebro-spinal meningitis, at least so far as localities are concerned, is a close one. A tendency to pelvic congestion is also reported, and trouble in obstetrical cases from the depression induced.

The relation of drainage to malarial diseases, and the influence of local causes,—soil saturation and retained moisture,—to the production of malaria, are becoming better understood. It is only comparatively lately that the importance of systematic drainage for health has begun to be realized. In our own State, largely through the influence of this Board, extensive drainage for the removal of malarial disease has been undertaken. The experience of Michigan, New Jersey, and other States and countries, affords every encouragement. Careful study will doubtless reveal removable causes wherever malarial diseases exist generally or locally; the connection between subsoil or ground water and their prevalence will in many instances furnish the explanation of otherwise apparently obscure cases. In another connection this subject is further treated, and a full discussion of drainage for health is hoped for by the time our next report is ready, and accurate data have been secured. While railroads, dams, and embankments are in process of construction, cities and towns occupying new territory for building purposes, and the grading of grounds and roadways extensively carried on, natural water courses receive but little attention, nor in constructing sewers in cities has there been attention enough paid to the natural drainage ways. The influences of this neglect have been more closely studied in New York city than elsewhere, and the close connection between the retention of ground-water from obstructed water courses malaria and cerebro-spinal meningitis especially have been repeatedly shown.

Typhoid fever has been for many years a prominent disease in this State. Its recurrence this year in Hartford after comparative infrequency is a significant fact in connection with the renewed use of the river water for drinking. There seems to have been a

steady increase in both typhoid and typho-malarial fevers since the epidemic of diarrheal disease in the fall of 1878. The river water, while freed from direct sewage contamination here, receives the sewage of Springfield, and is by far inferior to the West Hartford supply. A comparison with other waters used for public supply is here given:

	Conn. Riv.	N.Haven supply.	Boston supply.	Wells.	Thames, London, Eng.
Total solids (gr. per gall.),	4.200	3.300	not	5.700	19.600
Volatile, below red heat (gr. per gall.),	1.500		giv-	0.000	00.008
Chlorine (gr. per gall.),	trace.	0.220	en.	0.060	00.088
Free Ammonia (parts per million),	0.014	0.008	0.004	0.001	00.000
Albuminoid Ammonia (parts per mill.),	0.030	0.020	0.015	0.005	00.008

A trace of organic impurity is indicated by the albuminoid ammonia. The absence of chlorides in the specimen examined is singular, and must have been accidental. It is hoped that after this year the river will not again have to be resorted to for drinking water. Among the cities of the State, Meriden has one o the best sources of water supply,—upland surface water from an uninhabited, uncultivated water-shed, and abundant as to quantity.

Typhoid fever does not prevail extensively in well-sewered towns with a pure water supply, and the close, if not causal relation of contaminated water to typhoid fever and diarrheal diseases is so marked as to lead to an examination of the water in seeking for their cause. When entering the system through this medium, about one-third the time is required to produce the disease than i the case when through the medium of the air. It is a disgusting fact that excrement is allowed to gain access to air or water and is again taken into the system; yet typhoid fever, dysentery, cholera, and the like, are disseminated in this manner. The dejections of a typhoid fever patient thrown into a vault may preserve the specific virus or germs of typhoid fever, whichever it may be, for years if the vault be uncleaned, and then they may enkindle the disease. Experiments have proven the vitality of the germs of diphtheria for at least three years. The importance of disinfecting the dejections of typhoid patients cannot be too strongly urged. The duty of prevention of the possibility of future infection should be recognized. Copperas solution, the salts of zinc, or the dry earth system will secure this result. Indeed, both typhoid and enteric fevers are largely due to excremental contamination of air, earth, or water.

Diphtheria has not been developed in epidemic form so frequently

as in 1878, but the instances of whole families of children destroyed by it are by far too frequent. The circular of the Board has been pretty well distributed, is often now called for, and apparently has been very serviceable. Separation, even at short distances, of the uninfected, careful isolation of the sick, systematic ventilation and disinfection, as there recommended, will do much to limit the disease. It still remains endemic in Bridgeport, but much more decided sanitary measures must be enforced there before zymotic diseases become infrequent.

Consumption is still the most fatal scourge in this State: 1,316 deaths are reported as due to this cause, the greater number between the ages of twenty and thirty, at the most efficient period of life it also renders life less efficient and useful, lessening the vital powers and endurance. Careful investigation has shown that 24 per cent. only of the cases of this disease are due to inheritance;* the remainder are the resultants of the direct violation of sanitary laws, for instance, dwelling upon damp, undrained sites. Houses frequently can be shown that have never had permanently healthy occupants, and too often the house and its surroundings cause that disease that is attributed to inherited tendencies. Another most prolific cause is breathing impure devitalized air, re-breathing air that has been deprived of its life-giving principles by repeated passage through the lungs; each time 5 per cent. of oxygen is replaced by as much carbonic acid. It must also be remembered that one contaminates more air than he breathes by the animal vapors, products of decay he breathes into the air, and by the exhalations from the skin. The foundations too often are laid in the devitalized air of the house contaminated by the gases of decay drawn in from a filth-saturated ground-air, resulting from retained excretions, and waste incident to house life, from the decaying vegetables and neglected filth of a damp cellar; and sleeping at night in small unventilated chambers. The process is hastened by the like conditions in the crowded school-room; with its sharp alternations from heat to cold. And if the dust-laden air of factory or workshop be superadded, the termination is soon reached. The greater proportion of cases among those whose occupations keep them indoors is a significant fact in this connection. Catarrhal troubles and lung fever are also induced by impure air. An epidemic of typhoid pneumonia was traced

* Fox's Sanitary Examination of Air, Water, and Food.

during the year to bad sewerage, to which all those affected were exposed. Several of the cases were fatal.

There are many types of disease influenced by unsanitary conditions as well, and which can and will eventually be stamped out by efficient sanitation. It is gratifying to note that improvement follows the diffusion of knowledge, and that although opposition may at first be enkindled and indignant denial of the possibility of anything wrong existing, a calm, second thought induces action eventually.

The attention of the Board has, in several instances, been called to private nuisances, and instances where the unsanitary conditions maintained by neighbors caused trouble for those whose own affairs were well regulated. There seems considerable difficulty in dealing with a perverse neighbor in a country village who pollutes your well by a vault or cess-pool within a few feet of it, or even contaminates the air for a whole school by extensive pig pens or vaults, or induces malaria by damming the outlet of extensive swamp lands. Just how to meet these cases is not apparent. Some additional legislation is necessary, but just how to frame it is another matter.

SEWAGE DISPOSAL AND POLLUTION OF RIVERS.

These important subjects were brought to our consideration first by the application from the people of South Meriden and Yalesville, to investigate the pollution of Harbor brook and the Quinnipiac by sewage and manufacturing waste; and later, by the invitation from the Mayor, Common Council, and Health Board of Meriden, to inspect the city, and report its sanitary requirements. The general status of the principal questions involved is given here as far as they can be gathered from the sanitary publications of this and other countries. There is no general law with reference to sewage pollution of rivers in this country, and no other law in this State than special enactments concerning the preservation of the purity of waters used as a source of supply for towns or cities. A partial report was made to the legislature of 1878, with the draft of a law with especial reference to the use of rivers for drainage. The questions involved in the Meriden case, the disposal of sewage of inland towns, the use of rivers as outlets for sewage and drainage, are of such general importance that we have spared no effort in attempting their elucidation. We have secured maps of the basin of the Quinnipiac and of the topography of Meriden. It is hoped in time to secure accurate details of the topography of the whole State, as there

are many facts thus to be learned of the utmost importance in relation to the prevalence of disease. This question of the ultimate disposal of the sewage of Meriden, which is the principal one involved, although the drainage of the low-land is of no small importance, has been frequently and repeatedly discussed by the Board. The brooks in Meriden have been carefully traced as well as the course of the river, and several investigating committees have been over the ground in winter and summer. The local conditions in Hanover and Yalesville have also been carefully studied. Here several complicating elements come in. The river receives the manufacturing waste of the large cutlery works in Hanover. Many of the house lots in both villages are small, and the cesspools and vaults, either one or both, are in some cases not much over fifty feet from the wells, and the soil a few feet below the surface coarse gravel, then sand again. In several instances the cesspools were ventilated into the house only as described in our circular on house drainage. I have never yet failed to find illustrations of this wherever cesspools are in use to any extent: man can easily spoil a naturally healthy location. On the contrary, in other instances the utmost care and intelligence were manifested in the sanitary surroundings of the houses in Hanover and Yalesville, the two villages interested more especially in the use of the river. A careful survey of the wells in Hanover was made, and reference will be made later. This was done by an engineer employed by Hanover.

The best sanitary disposal of sewage is by irrigation, or by intermittent filtration and irrigation combined. The method of downward filtration is recommended because it is economical of land as well as efficient—but one acre required to three thousand inhabitants,* and two or three acres used at a time, the land used every third year, so that practically one acre to a thousand inhabitants would be required. In Silesia, where there is a very extensive manufactory of beet root sugar and a scarcity of water, all water that has been used in the manufactory, and all waste and foul liquids, are discharged on a well-drained piece of ground, the filtered water collected in a well, and the clear pure water thus resulting is used in manufacturing sugar; the process is described by Liebig. This process is adapted for isolated dwellings, *i. e*, intermittent downward filtration wherever small plots of land are available, and is by far preferable to cesspools; stored up accu-

* Denton's Sanitary Engineering, page 61, *et passim.*

mulations of filth are an abomination. However it may be in regard to other sciences, the Bible taught true sanitary science, and for adaptation to their habits of life, the sanitary code given the Jews was perfect.

In intermittent filtration the sludge settles to the bottom of the furrows, then covers the sides, and after that new land must be used; the sludge is allowed to partially dry and is then dug or plowed into the land, new furrows constructed, and the land ready for use. In Gennevilliers, near Paris (Paris sewage), these furrows are between the ridges of growing plants, and the sewage never directly touches the vegetation. "The soil acts mechanically as a filter, while the oxydizing action of the air on the soil and the growth of vegetation bring chemical agencies into operation, and decompose and assimilate the organic and other compounds in the sewage which may be available as fertilizing ingredients."

Frost does not materially interfere with the processes of irrigation or downward filtration; in the latter case the sewage sometimes thaws the land in the furrows if not frozen very solid. In winter the effluent water is slightly less pure, as there is no aid from vegetation. In the first description of the plan by Frankland in 1868, he states: A plot of five acres well and deeply drained (by porous tile) to the depth of six feet should be rendered as level as possible, divided into four plots and furrowed, each plot receiving the whole sewage for six hours. In this way, he states, the five acres would suffice for a town of 10,000 provided with water-closets. "Such a filter is a field for oxydizing and is analogous to respiration on an enormous scale, as the land gives out air to the filthy water trickling through it, and takes in air through the period of rest." The value of sewage for manure is estimated at two pence per ton by Denton.

Sub-irrigation is practiced successfully at Lenox, Mass., in this country, and sewage irrigation successfully at Worcester, Mass., at the Lunatic Asylum, so that the objection of the severity of our climate cannot be urged against either method, the one for isolated houses, small towns and villages, or the plan for inland cities. In Kendal, England, five and a half acres of land are used for the downward filtration of the sewage of fourteen thousand inhabitants—two million gallons in twenty-four hours. The plan has been satisfactorily in operation five years. Irrigation and filtration are in use in sixteen towns in England—precipitation in tanks at

Birmingham,* precipitation by chemicals at Leeds and three other cities, the pail system at Halifax and Rochdale—from the latter place that system takes its name. Berlin, Paris, Dantzig, and other cities might be mentioned, where the irrigation system has been successfully in use, wholly or partially. The works for the city of Paris are made more extensive from time to time; ultimately it is hoped to remove sewage from the Seine altogether. By act of Parliament no new sewers can be constructed emptying directly into rivers. The committee which reported in 1876, of which Robert Rawlinson (the highest living sanitary authority) was chairman, state, among other conclusions,* that "town sewage can best and most cheaply be disposed of and purified by the process of land irrigation for agricultural purposes. The sewering of towns and draining of houses must be considered a prime necessity under all conditions and circumstances, so that the subsoil water may be lowered from wet districts and may be preserved from pollution, that waste water may be removed from houses without delay, and that the surfaces and channels of streets, yards, and courts may be preserved clean; that the existing modes of treating town sewage by deposition and by chemicals in tanks does not effect much change beyond the separation of the solids and the clarification of the liquid."

There has been no further progress in this department, and this report represents the state of the subject in Great Britain, the most advanced country in the world in sanitary science and its application.

As stated elsewhere, Col. Waring, in his paper on the disposal of sewage, advocates the exclusion of surface or storm water from the sewers, and a separate system of drains for the subsoil water. There is much force in the objection to many of our sewers, as constructed with porous sides. If they will admit the entrance of the ground water, they will also allow the exit of the sewer water, and give a filth-reeking soil, besides polluting the ground water, always a prolific cause of disease.

In studying the Meriden case, the services of Col. Geo. E. Waring as sanitary engineer were secured, and the substance of his report will be found in the detailed report of our investigations. The plan of sub-irrigation has been mentioned as in use at Worcester and adapted to detached houses and small farms. In brief it is

*See Report of Committee on treating town sewage, Local Government Board, London, 1876.

managed as follows: small drain-tiles are laid in a network a few inches below the surface of grass land, and the sewage conducted into them by a flush tank preferably. The latter is illustrated in our circular on house drainage.

STATE PRISON INVESTIGATION.

At the request of the directors, a committee was appointed to inspect the State Prison, and Prof. W. H. Brewer and Dr. Chamberlain were appointed by the Board. Three visits were made, and a report in writing submitted to the directors on certain definite and fixed questions which were asked us by them. This report was published by the directors. The final report of the chairman, Prof. Brewer, will be found among the special reports. The presence of insane convicts is to be deprecated, especially those completely demented, of which there are now a few at Wethersfield.

Several years ago a law was passed requiring the trustees at Middletown to receive insane convicts after a proper examination, which was specified, and a commission appointed. A commission was lately appointed by the Governor to examine as to the insanity of these convicts. This committee reported them to be insane, but they are still in the prison at Wethersfield, where no proper accommodations for their care exist. There are no regular provisions at Middletown for the care of insane convicts, and it would seem that altogether different provisions should be made for their care than for ordinary cases of insanity, and greater safeguards especially for those manifesting a homicidal disposition. Nor should they be mixed indiscriminately with other non-criminal insane, even when not of the dangerous class. A separate wing in the regular asylum for the insane, where might be confined all the insane that manifest a homicidal tendency, or the dangerous, and those difficult to treat from any cause, as recommended by the committee of the New Jersey State Board of Health, seems a most satisfactory, feasible, and reasonable plan. There does not seem to be any commendable system on this subject in any State in the Union. In Perth, Scotland, there is a criminal lunatic asylum.* Here two classes of cases are found: 1st, Those found by the law insane at conviction. These can be detained as long as there is any danger of recurrence of the homicidal mania. 2d, Those

* See Second Report New Jersey State Board of Health, page 34.

becoming insane after imprisonment. If fitted for an ordinary asylum they are transferred at the expiration of their sentence, otherwise they are detained at the criminal asylum at the discretion of its authorities.

IMPURE ICE.

Through the kindness of Dr. Orlando Brown of Washington, Litchfield county, under whose care many of the cases were, I am enabled to place on record the history of cases of disease resulting from impure ice. Through the agency of this Board, in several instances where large supplies of ice were cut from sewage-contaminated ponds or streams—indeed, so near to sources of contamination that it would seem no outside interference would be required—these sources have been abandoned, and purer supplies sought. No cases of disease were traced to the ice in the instances named, as the supply was so general throughout cities, but doubtless such cases did occur, and some of the apparently strange cases have been thus caused. However that may be, it is undesirable to use impure ice, and we are using all means to illustrate and enforce the fact that water is not purified by freezing when it contains any considerable amount of impurities. These cases are similar to the results published by Professors Wood and Sharples, in the Massachusetts reports, and of Dr. A. H. Nichols, in regard to the impure ice at Rye Beach and the epidemic that followed its use, published in the seventh report of the Massachusetts Board of Health.

DRAINAGE FOR HEALTH.

In our first report is published a portion of the correspondence with parties in the town of Fairfield, relative to drainage, and retention of ground water by the obstruction of natural water courses with the existence of extensive marshes, and the relation of this condition of affairs to the malaria prevalent there. A written report was afterwards sent, briefly stating the relation of malarial diseases to such conditions as were there found. A few months later, an invitation to deliver a public lecture was received by the Secretary, and in response, a lecture on drainage for health was delivered to a very appreciative audience. It was the intention to have shared the evening with Prof. Northrop, who had been written to at the suggestion of the Secretary, and to have proceeded to the formation of a Village Improvement Society then and there. Prof. N. was, however, at the White Mountains, so the

whole evening was occupied by the sanitary lecture; allusions only made to the value of organized effort for village improvement. The publications of the Board were freely supplied. As will be seen by the paper of Mr. Sturgis, to whose intelligent and wholesouled liberality this grand movement for public improvement is due, an organization was afterwards effected, and much has been already accomplished. This is the first instance, so far as I know, of extensive and systematic drainage for health that has occurred in this State, and it is a noble example to follow. The retention of the ground water was doubtless the cause of the prevalence of malaria in this "historic town," as there is no other cause for such a condition of affairs. The soil is naturally easily drained, if there be no obstruction. The only other unhygienic condition was much too dense shading by trees and ornamental shrubbery, inducing dampness of the soil. This can be readily obviated by thinning and trimming.

GLANDERS.

Several suspected cases of glanders were discovered in the City of Hartford, and the Commissioners on Diseases of Domestic Animals, Hon. E. H. Hyde and T. S. Gold, met with the Secretary of the State Board of Health, and the Chairman of the City Health Board, Dr. Noah Cressy of Amherst, Mass., a veterinary surgeon, called as an expert to examine the horses, reported five as unquestionably glandered. A valuable horse was killed by its owner, the disease having been communicated from these cases. The five horses were old, nearly worthless animals; they were all eventually killed. In France the skin is slashed to render it worthless, as the disease may be conveyed by the skin of the animal.

The keeping of such animals in the city was declared a public nuisance, as glanders is an incurable disease, and may be conveyed to man (a fatal case was soon after reported from Waterbury). It was advised that the horses be killed at once. All owners of horses were informed of the danger, if they possessed glandered horses, of loss to themselves, or in damages to others if they harbored the disease. By this prompt action a great deal of mischief was probably prevented, as the disease had commenced to spread. Horses that had been removed to the country to avoid detection were either hunted up and killed, or their owners brought so to realize the risks they were running that they voluntarily killed the affected animals at once. The importance of prompt and decided

action here is apparent. The disease more often appears at first in old, worn-out horses, where it runs a chronic course for many months; but if it attacks young, full-blooded animals, its course is much more acute and fatal. Such animals should be killed at once.

CORRESPONDENTS.

The number of correspondents of the Board has steadily increased, and their zeal and interest in the work have suffered no diminution. The amount of work done by them for the Board deserves our warmest gratitude. Their voluntary assistance has been of inestimable value, and the information conveyed of permanent interest. The registrars of the more populous places have our warmest thanks for the interest they have manifested in the execution of the laws, and the promptness of their mortality returns. Reports concerning the health of towns will be found in the appropriate place.

PUBLICATIONS.

The first two editions of the circular on diphtheria have been exhausted, and a third issued. Applications, indeed, have come in from all over the land, and single copies have been sent. The circular on restoration of the drowned proved very popular. Copies are in stock for a wider circulation when the bathing season recommences. It is issued in two forms, one for posting in public places, the other for the pocket memorandum book. The Board are indebted to the State Board of Health of Michigan for the circular and use of the plates. A compilation of the laws relating to marriage has been issued, and the registration laws will be contained in our annual report.

LIBRARY.

The inestimable value of the reference library already collected has been proven in multitudes of instances in answering the many calls for information on some special sanitary topics, from all classes, clergymen, teachers, physicians, and *mothers*, who take an especial interest in the work of the Board. This will, as a matter of course, increase in value each year. Only works of permanent value are purchased, but current exchanges and the scrap-book are of great value. Indeed, the newspaper cuttings fill a very important place that would otherwise remain unoccupied.

MONTHLY MORTALITY AND SANITARY REPORTS.

These have from month to month grown more comprehensive, and apparently are attracting a wider circle of readers, as oftener, by far, questions concerning some statement contained in them are sent in. If our correspondents maintain their interest, which indeed seems on the increase, our reports must of necessity become more valuable as they include a wider area. Soon we can commence comparative statements.

THE SEWERAGE OF NEW BRITAIN.

This subject was brought to our notice by the inhabitants of Newington, an adjacent town, who feared excessive contamination of one of the branches which form Little or Park river, which, flowing through Newington, joins another branch at West Hartford to form the river which flows through the Park in Hartford, and empties into the Connecticut at Dutch Point. As this river is one of the sanitary nuisances in its course through Hartford from the amount of sewage it receives, it was an interesting fact to learn that already over a third of the sewage of New Britain was discharged into one branch, and how far this was polluted was a question of interest. So far as New Britain is concerned, the system is an excellent one. Nearly all the sewers are to empty into one large trunk sewer, and a third or more of the city is sewered. A brook is turned into this main sewer, so that it is kept constantly flushed. The sewage is well mixed with water by the time it leaves the outlet of the main sewer, and the committee of the Board, Prof. Brewer and Dr. Chamberlain, found but little odor at the mouth of the sewer at midsummer. The course of the stream is such as to subject the water to constant aeration as it spreads out over shallow rapids or smooth pools along its course. Long before it leaves Newington all apparent trace of sewage contamination is lost, nor was there any decided contamination discoverable by analysis after three miles run along the tortuous, rapid stream. There is a large amount of vegetable growth along the banks and margins fringing the stream, which doubtless aids in removing any impurities.

SOIL CONTAMINATION AND RESULTS.

This is a subject of the greatest importance, and the paper by Dr. C. A. Lindsley, Health Officer of New Haven, is one of the most

important that has been brought to the attention of the Board. The relation of contaminated excrement-sodden soil to the prevalence and indeed existence of many of the forms of disease that scourge us has never been so fully understood as of late. This contribution, to our knowledge, is well worthy thoughtful study, as it is the result of careful attention and observation. The organization of the Health Board at New Haven is very efficient, and furnishes a good field for study upon sanitary topics, as well as for the accomplishment of good hygienic work. The results are seen in a city that has the lowest death rate for a seaport town of any city of the same size in the world.

SCHOOL HYGIENE.

A preliminary paper on this subject is furnished by the Secretary. Some aspects of the subject are presented, and a circular of information, hints on the hygiene of school houses, prepared for school committees and others who have to do with either the alteration of old buildings or the construction of new. Many of the schools in this State have been visited, and many buildings in other States. A complete survey of this State is intended before the final article on this topic is written.

SALE OF POISONS.

The attention of the Board has been forcibly directed of late to the desirability of some limit to the indiscriminate sale of poisons in this state, especially those generally used for criminal purposes. The most feasible expedient yet reached appears to be the registration by the druggist of the name and address of the purchaser, with any other identifying marks or circumstances that may occur to his attention. The mere fact that such a record is to be kept would act as a slight check. This should be confined to active poisons like the compounds of arsenic, strychnine, and the like, as the effect is weakened if a large list of unlikely agents be included. In a supplementary list discretion might be left to the druggist. We hope to have a bill in readiness for the present legislature.

FUNCTIONS OF MODERN BOARDS OF HEALTH.

PROF. W. H. BREWER.

Other topics that have engaged the attention of the Board may be found in the special report of the secretary and in the papers on special subjects. The general scope and field of labor of a board of health is so well expressed by the paper of Prof. Brewer that it furnishes the best conclusion of this report that could be afforded.

Modern *Boards of Health* are the official organizations by and through which communities try to use the teachings of science for the prevention of disease. They have become a necessity, partly because of that large class of new dangers to health which have grown out of the changes wrought in our modes of business and life, and partly because of new applications of science. Our civilization has become more complex with the modern methods of doing business, particularly in the production and distribution of articles in common use by the masses, and one result of this change is that a man's safety from contagious disease is now relatively much less under his own control than when business methods were simpler. Even in his general health, he is now more liable to suffer for the sins of the community than he was when population was more sparse and before stock companies and other organizations supplied him with water and gas in his house, produced so many of his foods, drinks, and clothes, before steam transportation brought his food and other articles from so many and such distant regions, and before travel was so easy, speedy, and common.

These modern improvements, while beneficent as a whole, have introduced so many new sources of danger that they have made boards of health a necessity. So great is the necessity, that in many cities the rich and intelligent are organizing stock companies, societies, and associations for the protection of the members or stockholders from these new dangers, particularly against unwhole some adulterations of foods and drinks.

Official boards of health, taken as a whole, differ greatly in their constitution, organization, scope, and powers. Their aim is always the same—the furtherance of the public health. No other department seems more simple in theory, but as we find them in actual operation they differ more in their methods and scope than any other department of civil government. This is partly because of the newness of the subject, and partly because of the nature of the work they are asked to do.

It is well, therefore, that each locality for itself should often discuss this subject in the light of its own conditions and needs. In a case like our own, where a special board is a new thing, where its legal powers are still illy defined, and where its special and proper work is but imperfectly understood, it is particularly desirable that a discussion of its functions, methods, and uses be kept up until the community is educated into a better knowledge of sanitary science, and the board itself into a better understanding of the work it can do for that public whose servant it is.

The simplest form of a health board is the old one, devised in some previous century, and which still exists in this State at large, where its special functions, so far as they are performed at all, are performed by officers elected more especially for other duties, and rarely, if ever, chosen because of their having given special study to sanitary science. Such boards rarely perform active duties relating to the health of the public other than the most general and obvious one, unless on special occasions or emergencies, as, for example, when some disease becomes conspicuously epidemic, or small-pox occurs, or when unusually prevalent sickness is popularly attributed to some local cause. The efficiency of such boards is very variable. They have legal power enough, but usually lack the special knowledge required for good results. It sometimes happens that the work of such boards, in small communities, is reasonably efficient; more often they do nothing until an epidemic has set in, it may be not until after a panic has arisen, and then their work is wildly done, and without technical knowledge of what should be done. It is the attempt to use the pound of cure because the ounce of prevention has been neglected. Many a town, in recent epidemics, has found to their great cost how utterly inadequate to modern wants was a health board whose constitution and methods were devised long ago, for a smaller community, and before the modern methods of production, transportation, and travel were known.

It is just as wise for a modern city to rely upon the poor hand-pumps of the last century to suppress fires as on the last century's methods to suppress disease. If we are wiser in the protection of our property than of our health and lives, it is simply because a knowledge of mechanical science and invention is more widely diffused through the community than a knowledge of sanitary science and its applications.

The next step for the better is a separately constituted board to attend to this special want, and whose members are supposed to have a fitness for its especial work. But even here, we find still greater range of scope and operation than in the simpler board already described. The special board may be hampered by legal restrictions and uncertainties, or by lack of other municipal coöperation, or by popular or official ignorance and prejudice, or by a multitude of causes, not the least of which are the political customs of the community. Hence in one place it may be strictly confined to the prevention or suppression of epidemic and contagious diseases that are actually occurring, in another, in addition to this have more or less to do with the causes and sources of disease; next we find them collecting or classifying the vital statistics, because of the obvious relation between mortality and disease.

In other localities we find duties put upon them heretofore divided among other departments, such as the removal of garbage, the cleaning of streets and sewers, tenement-house supervision, inspection and more or less supervision of foods and drinks sold in the markets, the sale of poisons and medicines, the sanitary arrangements of schools, the supervision of unwholesome trades, and so on through a great variety of functions, and with plausible show of reason, because all of these things affect in some way the health of the community. How far this is sometimes carried is shown by a late order of the health board of a certain foreign city, prohibiting the ladies from dragging their trails in the public streets on the score of injury to the public health.

Now, it is for each city for itself to determine where, between these extremes, the functions of its own local board shall be placed, and that this be wisely done and for the best interests of its inhabitants, it is important that it be often and intelligently discussed.

Our own political principles and traditions have ever been so strongly in favor of the widest possible individual liberty, and so strongly repugnant to official supervision or control of private business, that it is difficult to introduce new restrictions or meas-

ures which the modern conditions make absolutely necessary for the protection of the public from some of the dangers of to-day as well as it was protected a generation ago under the conditions then existing.

Then one family's filth would not interfere with the health of its neighbors as it does now, because the neighbors were not so numerous nor so near. Then it was not so easy to introduce diseased meat, because we knew where the cattle were fattened, how they came here, and who slaughtered them; now the consumer practically knows nothing about it; and so on to the end of a long list.

Again, science has taught us how to cope with some of the diseases which were most dreaded in previous centuries, such as small-pox, cholera, typhoid fever, etc., but to successfully battle with them we must use organized effort and have official aid. Science has told us much about the nature of several of the most fatal diseases which sometimes sweep in great epidemics, how they march and spread, and what weapons can be used to vanquish or check them. When it is so universally acknowledged that the application of science has so added to our material prosperity, added to our comforts and our products, revolutionized our industrial pursuits, our commerce, and our travel, it is simply the height of foolishness not to use it also in the beneficent work of lessening sickness and saving human life.

Mechanical invention and physical science have contributed to the material good of the rich and poor alike; they have probably added relatively more to the privileges and common comforts of the poor than to the rich, yet it seems to me that they have relatively increased the *power* of the rich more than of the poor, and particularly to the power of rich organizations. It is probable also that these same causes have added to the credulity of the masses in directions dangerous to health. Such wonders have been actually performed that the claims of quacks and pretenders are listened to as they would not be were it not for the positive and well-known achievements of genuine science. An examination of all the advertisements of any single day in this city will show that nearly all of the manufacturers or vendors of nostrums claiming to cure all the ills of flesh, and also of new kinds of food and drinks intended for personal or family use, pretend to found their claims on the teachings and discoveries of science. There is nothing in the accepted ethics of publishing or in law to prevent

statements in advertisements which every intelligent man believes to be false, but which nevertheless deceive the ignorant, and who suffer as a consequence, sometimes directly from the use of the article, sometimes from a feeling of false security against real dangers.

It is most certainly the duty of government to protect the weak from the oppression of the strong, the virtuous from the vicious, and especially to protect that class called the poor. It is this last class that suffers most from adulterated foods, unwholesome surroundings, and other unsanitary conditions, which can only be controlled or suppressed by official effort.

The rich can largely protect themselves by voluntary association and by their wider choice of locality for their homes. As before said, in many cities private associations exist to protect its members from adulterated foods and drinks, and it is only a question of time how long it will be before each State or city must provide some official means to also protect the public at large. As it now is, we have laws and officials to see to it that the grocer's and milkman's measures are correct, so that the buyer be not cheated in the quantity, but practically we have no means of preventing a worse cheating as to quality. We have laws and officials to see that the butcher's scales are correct, but practically no means of seeing that the meat he weighs is wholesome. We protect the pocket but neither health nor life in many such matters.

The need of sanitary inspectors has been brought to the attention of our city government from time to time, but the proposition has not yet met with favor. Their appointment, however, is but a question of time; they will as surely be demanded by the community to aid in suppressing disease as the police now is for the suppression of crime and violence, and the next generation will as surely smile at our opposition and ignorant conservatism as we do at a previous generation for opposing lighting by gas, vaccination, and lightning rods. For, after all, we must ultimately depend upon the general intelligence of the community. No amount of official supervision can take the place or do the work which belongs to each individual—it must merely supplement and aid it. If liberty be worth anything, it must be used for the public as well as for private good, and if the health of a city could be entirely regulated and saved by a *board*, of what use would be individual liberty?

The official health board then should certainly labor in at least four directions:

1st, To do that which the free individual cannot do in his private capacity to protect himself from unwholesome conditions which arise from his neighbors.

2d, To see that the conditions which produce or spread zymotic diseases are suppressed or controlled.

3d, To educate the public in sanitary matters, advise it of real dangers, and quiet fear as to imaginary ones.

4th, To protect the poor from those dangers to health which they are particularly subjected to.

SECRETARY'S REPORT.

The general character of the work of the year has been outlined in the preceding report, but before presenting detailed accounts of the different subjects there presented there are some more specialized labors and duties performed by different members of the Board, and by the Secretary, under direction and instruction of the Board, that require mention, in order to fully explain the work accomplished. The publications of the Board have already been alluded to as one of the methods of popularizing sanitary and hygienic principles; another method, which was mentioned in our first report, has been pursued as extensively as time would permit. That is by means of sanitary lectures, familiar talks, and discussions. A half or three-quarter hour lecture is given, generally followed by an informal discussion of the topics presented, or of others of local interest that may be brought forward. These have been well received and considerable interest manifested in the discussion of local sanitary questions. In another department Prof. Brewer has discussed sanitary subjects before farmers' conventions, and at the sessions of the State Board of Agriculture. These are of a more scientific character, and have been of the greatest value, in many instances involving the results of personal investigations.

This course will be continued, and in this manner much practical information disseminated, in a manner and method to render it of permanent benefit. Public hygiene has also received special attention at the Medical school, through the agency of Prof. Lindsley, so that the new coming doctors will be better rooted and grounded in this department than their predecessors. In connection with Prof. Northrop lectures have been delivered by the Secretary before village improvement societies, and on school hygiene before the different teachers' institutes in the State. A course has also been commenced at the Normal School, which is expected to be a yearly institution hereafter. The only limit to work in this department is time, as the demand and interest are unflagging. The results are, in many cases, direct and decided.

SANITARY INSPECTIONS AND INVESTIGATIONS.

In many cases inspection of houses and grounds have been made, with reference to their sanitary condition, and full and explicit directions given for placing the house and its surroundings in a proper sanitary condition. Examination of the water of wells and of sources of public water supply have also been repeatedly made. This work will always be performed whenever circumstances warrant, on due notice being given. It is intended to render the Board as directly beneficial to the people as possible, and whenever there is good reason to suppose that local unsanitary conditions exist, examination will be made. Investigations will also be made on the appearance of any unusual forms of disease, upon notification of their existence.

ILLUSTRATION OF THE APPARENT CAUSATION OF MALARIAL FEVER.

There were a number of cases of malarial fever in a limited locality in Durham, where no cases had previously been known, except from importation, and these were succeeded by severe cases of typho-malarial fever, no other cases existing in the town. A large swamp had been flooded the season previous to the outbreak of the first cases, and as all the cases were around this pond it was suspected as a cause. On examination there was found a depth of water not exceeding three feet in the deepest portion, and allowing the sun to strike through to the vegetation, which was covered with shallow water for the most part. Some fifty acres were thus flooded by a dam not over four feet high at any portion. The water was set back in the swamps for a considerable distance. The connection between this condition of affairs and the causation of malarial fever seems evident.

SCAVANGERING, OR DISPOSAL OF FILTH AND GARBAGE OF TOWNS AND CITIES.

This includes the removal of ashes and dry house-dirt, cleaning streets and catch-basins, and the removal of offal. The system in use at Boston, Mass., is very thorough; a condensed outline of the plan is here given. Greater attention to this important subject is earnestly recommended to cities and towns; next to sewerage there is no subject that will better repay intelligent management in the interests of public health. The ultimate disposal of this filth is, too, a question of the deepest importance in a sanitary

sense. The whole matter is under advisement by the Board, and we hope soon to issue a circular of instruction. The use of street-scrapings to mend other places where the streets are defective, or to spread in a layer over the fine stones in macadamized roads, cannot too strongly be condemned. Malaria is more than invited by this process, and the evils of a filth-saturated soil are kindly disseminated. The ultimate results of an accumulated thickness of such a material in a roadway and a protracted heated term are a pestilence or epidemic; it is simply a question of time.

The filth to be removed by scavangering is of two general kinds—ashes and dry house-dirt, and garbage or offal. These should be kept apart, and separately collected and removed, and a stringent fine imposed by municipal or town law if they are not kept separate. Each householder should be compelled to keep a water-tight and properly covered receptacle for house-garbage. These receptacles should be emptied by a city cart, which should be water-tight, and removed beyond the city limits. There would be no difficulty in disposing of this matter; the city of Boston sells this for $28,000, and it costs $76,000 to remove it in the manner described. It is urgently advised that a regular garbage removal should be provided for in cities and towns, and the ashes and dry dirt be kept separate from the garbage. The street-scrapings are best disposed of to farmers, who would doubtless remove them for their value as fertilizers.

The ashes and dry dirt may be used in filling and grading; they should be as regularly removed as the garbage, and not allowed to accumulate. In spite of all care, garbage and decaying matter, especially dead animals—rats, cats, dogs, etc.,—will be mixed with the dry refuse, so that this material is unfit for filling ground to be used for the sites of houses. Decomposition goes on in this material for years, and extensive epidemics have been caused in houses built over land made by refuse. The removal of garbage, house refuse, street-scrapings, the contents of catch-basins and cesspools can be more readily secured than a satisfactory disposition of them. In this State, however, farming lands are so near the cities that they can be pretty well disposed of there. The contents of catch-basins, street-scrapings, dead animals, and the contents of cesspools, should be used as fertilizers on farms, and never in filling in. Too much carelessness is exhibited here, especially where ponds or shallows are to be filled; everything is there dumped, and a thin covering of ashes expected to answer all

sanitary requirements. The attention of local boards of health is respectfully directed to this matter. The epidemic of 1878 in New Orleans has effectually prevented the use of street-scrapings, and the mixture of offal and refuse above described, so far as that city is concerned. It is to be hoped that we will not in Connecticut wait for the epidemic we have in too many cases been assiduously inviting, carefully cultivating all the conditions; but in the future follow rational sanitary methods. Even if some outlay is involved, it cannot be more wisely expended.

A word as to the time for cleansing vaults. The day is far preferable; the odors stirred up at night in the still air remain, and cannot be excluded from sleeping apartments, and directly produce disease. In a sanitary point of view, the night should never be used to clean a privy-vault.

SLAUGHTER-HOUSES.

The attention of local boards of health is directed to these establishments; they should be excluded from city limits, unless the modern methods of disposal of refuse are enforced. By these, these establishments can be rendered as inoffensive as any other. A general law regulating noxious trades and industries is required, as nearly all can be so regulated that no danger to the health of the neighborhood will be caused. The exceptional cases should be removed to a distance from populous places.

SANITARY PUBLICATIONS.

One of the most important departments of labor engaged in by the Board is the publication of short, concise, and plain circulars or pamphlets on some hygienic subject, or giving exact and plain directions with regard to the prevention of disease. That on diphtheria, one of the first issued, has had a wide circulation, has met with general favor, and has been, in many cases, of great usefulness. It has received unqualified approbation from other Boards, and, in one or two instances, has been used as a basis for a similar publication. It is kept in stock and freely circulated whenever demanded. It is also sent at once where an outbreak of the disease occurs, to those likely to be interested,—school officers, and the like. Such publications receive much more attention when the disease on which they treat is actually present than at other times.

This year the circular on "treatment of the drowned" has been published, and as there has not been much time to accumulate experience on the subject, the circular of the Michigan State Board of Health was adopted. The Secretary, Dr. Baker, very kindly furnished the cuts to print from, thus saving us the expense. This has been partially circulated, and is now in stock. It is printed in two forms,—one on thick card-board, large size, for posting conspicuously in public places; the other of the right size to be carried in one's pocket memorandum book. This has also been very favorably received, and promises to be of usefulness.

TREATMENT OF THE DROWNED—TWO THINGS TO BE DONE: RESTORE BREATHING; RESTORE ANIMAL HEAT.

RULE 1. Remove all obstructions to breathing. Instantly loosen or cut apart all neck and waist bands; turn the patient on his face, with the head down hill; stand astride the hips with your face towards his head, and locking your fingers together under his belly, raise the body as high as you can without lifting the forehead off the ground (Fig. 1), and give body a smart jerk to remove mucus from the throat and water from the windpipe; hold the body suspended long enough to slowly count ONE, TWO, THREE, FOUR, FIVE, repeating the jerk more gently two or three times.

RULE. 2. Place the patient face downward, and, maintaining all the while your position astride the body, grasp the points of the shoulders by the clothing, or, if the body is naked, thrust your fingers into the armpits, clasping your thumbs over the points of the shoulders, and raise the chest as high as you can (Fig. 2) with-

out lifting the head quite off the ground, and hold it long enough to *slowly* count ONE, TWO, THREE. Replace him on the ground, with his forehead on his flexed arm, the neck straightened out, and the nose and mouth free. Place your elbows against your knees and your hands upon the sides of his chest (Fig. 3) over the lower

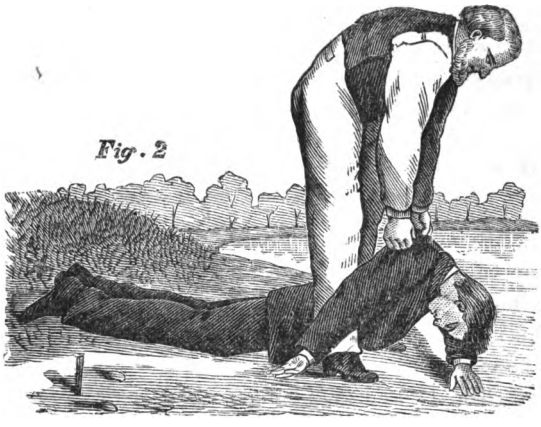


Fig. 2

ribs, and press downward and inward with increasing force long enough to slowly count ONE, TWO. The suddenly let go, grasp the shoulders as before, and raise the chest (Fig. 2); then press upon the ribs, &c. (Fig. 3). These alternate movements should be repeated ten to fifteen times a minute for an hour at least, unless

Fig. 3.

breathing is restored sooner. Use the same regularity as in natural breathing.

RULE 3. After breathing has commenced, RESTORE THE ANIMAL

HEAT. Wrap him in warm blankets, apply bottles of hot water, hot bricks, or anything to restore heat. *Warm the head nearly as fast as the body, lest convulsions come on.* Rubbing the body with warm cloths or the hand, and slapping the fleshy parts may assist to restore warmth, and the breathing also. If the patient can SURELY swallow, give hot coffee, tea, milk, or a little hot sling. Give spirits sparingly, lest they produce depression. Place the patient in a warm bed, and give him plenty of fresh air; keep him quiet.

BEWARE!

AVOID DELAY. A MOMENT may turn the scale for life or death. Dry ground, shelter, warmth, stimulants, etc., at this moment are nothing; ARTIFICIAL BREATHING IS EVERYTHING,—is the ONE REMEDY; all others are secondary.

Do not stop to remove wet clothing before efforts are made to restore breathing. Precious time is wasted, and the patient may be fatally chilled by the exposure of the naked body, even in the summer. Give all your attention and effort to restore breathing by forcing air into and out of the lungs. If the breathing has just ceased, a smart slap on the face, or a vigorous twist of the hair will sometimes start it again, and may be tried incidentally, as may also pressing the finger upon the root of the tongue.

Before natural breathing is fully restored, do not let the patient lie on his back unless some person holds the tongue forward. The tongue, by falling back, may close the windpipe, and cause fatal choking.

If several persons are present, one may hold the head steady, keeping the neck nearly straight; others may remove wet clothing, replacing at once clothing which is dry and warm; they may also chafe the limbs, and thus promote the circulation.

Prevent friends from crowding around the patient and excluding fresh air; also from trying to give stimulants before the patient can swallow. The first causes suffocation; the second, fatal choking.

DO NOT GIVE UP TOO SOON. You are working for life. Any time within two hours you may be on the very threshold of success without there being any sign of it.

In suffocation by smoke or any poisonous gas, as also by hanging, proceed the same as for drowning, omitting effort to expel water, etc., from the windpipe.

In suspended breathing from effects of chloroform, hydrate of chloral, etc., proceed by Rule 2, taking especial pains to keep the head very low, and preventing closure of the windpipe by the tongue falling back.

The foregoing method, originally published by the State Board of Health of Michigan, has the sanction of other State and City Boards of Health, and is fully endorsed by the State Board of Health of Connecticut, and printed for general distribution as a life-saving measure.

Address STATE BOARD OF HEALTH, Hartford.

The last circular, just issued, is on rural hygiene, with reference especially to the house and its surroundings. There is so much to be said on this topic that it is extremely difficult to condense and select the most salient points. Those have been taken for the most part that, in the experience of the members of the Board, in personal investigations, need most to be elucidated and understood. Many unsanitary conditions about the house are allowed to exist which would not be tolerated if their nature and effects were understood. Too great confidence is placed in country air.

It must be remembered that by the waste and excrementitious filth necessarily resulting from human and animal life, the immediate surroundings of a house, air, soil, and water may be poisoned even in the best selected location, and that carelessness or ignorance of the laws of drainage may give one a damp, cold, and wet site, where the appearances would lead one to expect the contrary, and thus entail all the evils that a wet subsoil slowly but surely induces.

SUGGESTIONS ON RURAL HYGIENE.

Relating principally to the House and its Surroundings.

A dry, well-drained site for a dwelling-house is pretty generally conceded to be an essential requisite for a healthy home. The relation of damp, sodden foundations and wet, undrained surroundings to such diseases as rheumatism, diarrhœa, and consumption is recognized by nearly all intelligent persons, the facts relative to the latter disease having been demonstrated chiefly by Dr. H. I. Bowditch, of the Massachusetts State Board of Health.

But while the necessity for the removal of the excess of surface moisture has become a matter of general information, the reverse is true with reference to deep drainage, which is not so well understood even by physicians.

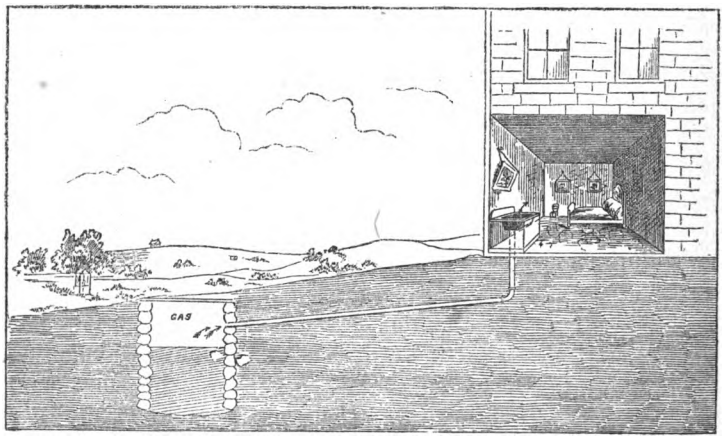
At a level, varying with the geological formation from a few feet to several hundred below the surface of the ground, we find the soil saturated, so to speak, with water. This may be considered as a sheet of water moving toward the sea with a slow but uniform motion, and feeding rivers and other water-courses perhaps as much as the brooks or streams which flow in upon the surface. This underground circulation of water is called subsoil or ground water. The latter term will be used in this circular. The level of the ground water at a river would be about the same as the bed of the river, gradually rising as you recede from the banks. Deep wells reach the level of the ground water, and their uniform level is a fair gauge of the level of the ground water. Retention of the ground water by natural or artificial means is one of the most fruitful sources of malarial diseases, which disappear when a free outflow is provided. One of the most striking examples in this country was furnished by the city of Detroit, where the mortality from epidemics of malignant malarial fevers was excessive, and epidemic dysentery and cholera prevalent, now one of the healthiest cities in the world,—the results of a complete system of drainage and abundant supply of pure water, although naturally most unfavorably located.

A house upon a sandy hillside may be malarious, so to speak, or a hot-bed of consumption, while one near a stream or upon low land may be dry and healthy. In the one case the outflow of the ground water is obstructed, while in the latter entirely free and unimpeded. The unhealthfulness of many an apparently well located dwelling is thus accounted for. It is evident that in many instances town or even State action is requisite to secure deep drainage. In constructing a house, deep drains should be carried under the foundation walls entirely around the house, with one or more branches from the center of the cellar. These should in no case be used for sewage. Systematic drainage by towns will of necessity receive more attention as the causal relation of retained ground water to malarial and other forms of disease is recognized.

The atmosphere does not end with the surface of the ground, but fills the spaces between the particles of the soil unless displaced by other gases or water, and plays an important part in the chemistry of plant life; but as in the case of the ground water, the ground air, as it is called, is considered here only in its sanitary relations.

The soil about country homes may be contaminated by soakage

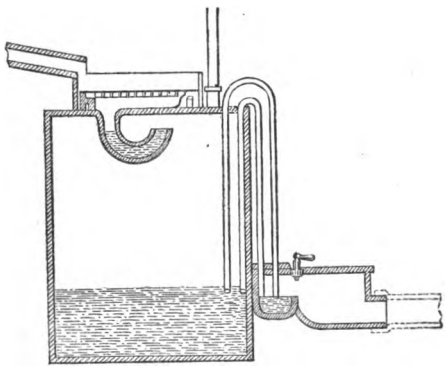
from leaky cesspools and privy vaults, and from decaying heaps of garbage and filth. The contamination of the ground air that results is more deleterious to health than the vile odors that may render the air disagreeable, but which are not particularly harmful. A house standing upon a gravelly foundation rests upon two-thirds small stones, one-third air. Now, as in this climate the houses are warmed a great part of the time, they act upon the same principle as a chimney, and suck up or draw in this ground air, which is colder than the air of the house, and influence thus a considerable area. Now, if the air, contaminated by contact with a soil polluted by kitchen or chamber slops, soakage from privy vault or cesspool, or any decaying mass or accumulation of filth in outhouses or surroundings is drawn into the house, as must of necessity happen if such sources of pollution exist, the air of the house is to this extent contaminated and devitalized, and becomes the predisposing cause of such diseases as diphtheria, cholera infantum, croup, catarrh, lung fever, consumption, and a host of minor ills that depress vital energy, lessen the working power, and shorten life. The products of decay from vegetable putrefaction in the cellar are by the same law of natural philosophy drawn up to devitalize the air of the occupied rooms.



One of the most common sanitary defects is illustrated in the above cut. A closed, unventilated cesspool communicates by an open, untrapped pipe directly with the house, so that all the gases of decay generated in the cesspool find their only outlet in the

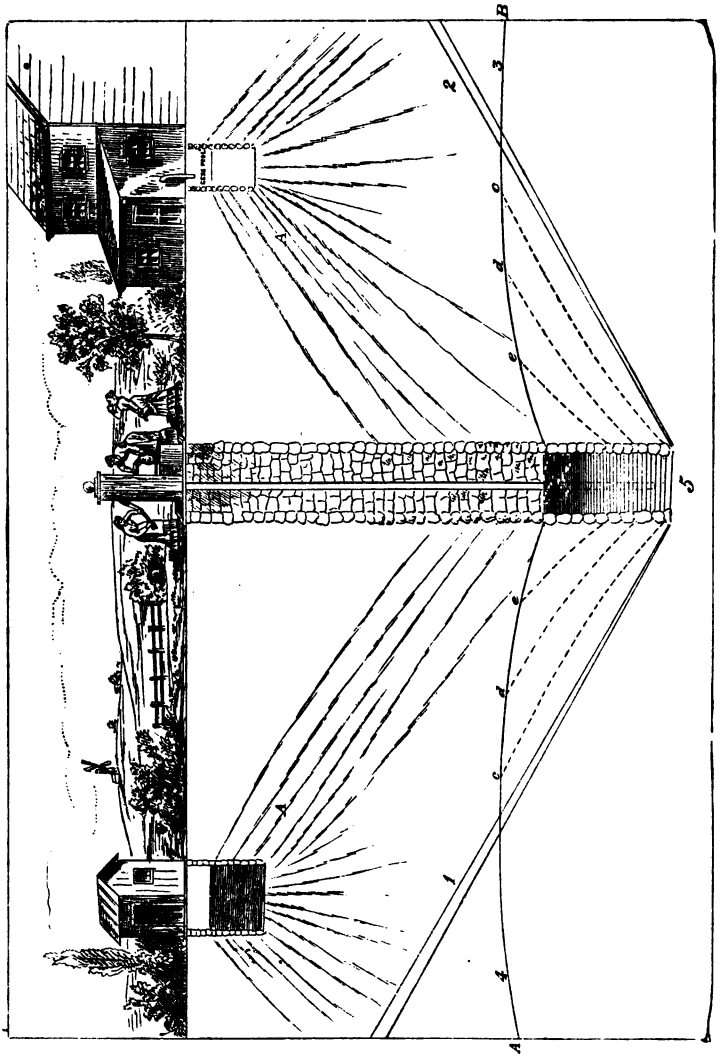
house, and are also drawn in by the difference in temperature already described. In other words, the house is used to ventilate the cesspool. In the instance from which this sketch was taken, the apparent result was the death of five children from diphtheria; three slept in a room adjacent, with the door open at night, two in the room above.

If cesspools are used they should be cemented water tight, ventilated thoroughly, and frequently emptied. The soil saturation resulting from ordinary careless methods sooner or later becomes a factor in the production of disease. The best method in a sanitary point of view is the absorption method. A series of porous tiles are laid a few inches below the surface, preferably of a lawn. These communicate with a flush tank, which empties itself automatically as soon as full with sufficient force to flush the pipes. This system has stood the test of time, and is well adapted for the sewerage of small towns where there is no water supply. The following cut illustrates the tank mentioned. If it is desired to irrigate different plots, the tank can be connected successively with each set of drain pipes.



It is hardly possible to fix the limit for perfect safety for the distance that should exist between privy vault, cesspool, and well. It is safe to say that, if used at ordinary distances, both vault and cesspool should be cemented water-tight. The principles of drainage are practically recognized by every farmer, almost, who learns by experience that a drain draws from a larger area after it has been in place awhile, and that channels of communication are formed in the soil along which the water finds its way to the drain.

Still it is seldom that they apply this to their wells, and we find outhouses situated within a few feet of wells, and the cesspool perhaps as near on the other side. A common error in this con-



nection is to conclude that, if the water from a well is clear, bright, and sparkling, and offends neither taste, sight, or smell, that it

must be pure. The reverse, however, is the case, and water that is the most decidedly contaminated by the products of organic decay may be the most pleasant to sight and taste. Indeed, such water is often sought for its pleasant qualities, as was the case with the famous Broad street well in London, which communicated cholera to so many persons. The accompanying illustration shows pollution of soil and water by cesspool and privy vault. The lines 1, 5, 2, 5 outline the drainage area of the well, which in this case includes both vault and cesspool. The line A, B indicates the level of the ground water, and the dotted lines show the local curves that would result in the level of the ground water if the well were drawn down.

The driven well, if driven deep enough, avoids contamination by surface water. The water from deep wells, when not contaminated by surface water, is of the best possible quality. Surface water may be excluded by laying the upper three-fourths of the wall of the well in cement.

Infiltration of the soil from the privy-vault may be prevented by cementing the vault so as to be water-tight. The earth closet system is to be unqualifiedly commended, and any one with the slightest ingenuity can construct one that will answer all requirements. An ordinary packing box and a large-sized coal hod furnish the requisite materials. If dry earth be not readily obtainable, ashes will serve equally as well. A corner of the box may be partitioned off to hold the earth or ashes, a seat and cover can be easily made, and for all practical purposes the result is equal to that achieved by the outlay of twenty-five to thirty dollars. The advantages and comfort of this system, especially in the winter months, for women and children, more than outweigh any slight trouble that may be involved. The pail system is well adapted for small towns where sewerage or the flush tank system are out of the question. If a general system for the disposal of this and other forms of filth cannot be made general throughout the town or village, a sanitary association or village improvement society might inaugurate the system, which, once started, would thenceforth be self-sustaining.

Excessive shading of house and grounds is not uncommon, and while shade trees add much to the attractiveness of a town or village, dense shading of the grounds or house induces dampness, and produces ill health by the exclusion of sunlight. The soil is often kept damp and unwholesome, and a constant decay of leaves

and other vegetable substances near dwellings, by dense shrubbery. Fresh air and sunlight should have the fullest access to all the immediate surroundings of the house. In a sanitary view the elm, with its more open habit, is the better shade tree for streets and yards. Human beings require sunlight as well as plants. In the back yards, near the neglected sink drain, a rank, nauseous vegetation too often exists, and a damp, filth saturated soil.

If disinfectants are to be used, the best are copperas or sulphate of iron for privy vaults, garbage heaps, and the like, and a solution of the sulphate or chloride of zinc for cesspools and sink drains. The prompt removal of all filth before decay commences is the sanitary method. But as this cannot always be secured, disinfectants must be sometimes used;—those mentioned as cheap, odorless, and efficient. Where the soil is saturated with grease or oil, the preliminary use of caustic potash may be requisite.

A saturated solution of copperas may be used,—that is, as much as the water will dissolve. From eight to ten ounces of the zinc salts to a gallon of water is a good solution. The chloride of zinc is strongly caustic; in strong solutions the salts may be used separately or together.

A circular on school hygiene is in course of preparation, and one on the sewerage and drainage of city houses. As circumstances demand, and time and funds allow, we hope to cover the field of the more important points involved in public hygiene.

In the department of vital statistics a resumé of the laws concerning marriage and the duties of registrars and of those solemnizing marriages has been published, and partially circulated. It is sent with each supply of blanks that are ordered, and will be until all towns are supplied, and then kept in stock for special needs. It will be found in proper place, following the registration tables. A similar circular relating to the returns of births and deaths will be issued during the next year.

Our system of blanks for the department of vital statistics is now about complete; with an admirable basis to start upon, the additions have been for the most part those relating to the sanitary work of the Board. In a visit of inspection the blanks met the unqualified approbation of Dr. Elisha Harris of New York, one of the highest authorities in the department of vital statistics.

For all practical purposes the disinfectants most to be relied upon are copperas, the salts of zinc, the sulphate and chloride especially, and sulphur. Copperas may be used for privy vaults, cesspools, garbage heaps and the like, the salts of zinc for sewage, and in solution to disinfect cotton and linen goods used about the sick. There are other disinfectants of value, but these are inodorous, efficient, and easily handled. Their value has been demonstrated in the experience of the National Board of Health, the Auxiliary Sanitary Association of New Orleans, and of the New York Board of Health, as well as other organizations. Solutions of the zinc salts may also be used. The following instructions have been issued by the National Board of Health :

INSTRUCTIONS FOR DISINFECTION.

PREPARED FOR THE NATIONAL BOARD OF HEALTH.

Disinfection is the destruction of the poisons of infectious and contagious diseases.

Deodorizers, or substances which destroy smells, are not necessarily disinfectants, and disinfectants do not necessarily have an odor.

Disinfection cannot compensate for want of cleanliness nor of ventilation.

I.—DISINFECTANTS TO BE EMPLOYED.

1. Roll sulphur (brimstone) for fumigation.

2. Sulphate of iron (copperas) disolved in water in the proportion of one and a half pounds to the gallon—for soil, sewers, etc.

3. Sulphate of zinc and common salt, disolved together in water in the proportion of four ounces of sulphate and two ounces salt to the gallon—for clothing, bed-linen, etc.

NOTE.—Carbolic acid is not included in the above list for the following reasons : it is very difficult to determine the quality of the commercial article, and the purchaser can never be certain of securing it of proper strength ; it is expensive, when of good quality, and experience has shown that it must be employed in comparatively large quantities to be of any use ; it is liable by its strong odor to give a false sense of security.

II.—HOW TO USE DISINFECTANTS.

1. *In the Sick-room.*—The most available agents are fresh air and cleanliness. The clothing, towels, bed-linen, etc., should on removal from the patient, and before they are taken from the room, be placed in a pail or tub of the zinc solution, boiling hot, if possible.

All discharges should either be received in vessels containing copperas solution, or, when this is impracticable, should be immediately covered with copperas solution. All vessels used about the patient should be cleansed with the same solution.

Unnecessary furniture, especially that which is stuffed, carpets, and hangings, should, when possible, be removed from the room at the outset; otherwise they should remain for subsequent fumigation and treatment.

2. *Fumigation* with sulphur is the only practicable method for disinfecting the house. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with zinc solution should be opened and exposed during fumigation, as directed below. Close the rooms as tightly as possible, place the sulphur in iron pans supported upon bricks placed in wash-tubs containing a little water, set it on fire by hot coals or with the aid of a spoonful of alcohol, and allow the room to remain closed for twenty-four hours. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms proportionally increased quantities.

3. *Premises.*—Cellars, yards, stables, gutters, privies, cesspools, water-closets, drains, sewers, etc., should be frequently and liberally treated with copperas solution. The copperas solution is easily prepared by hanging a basket containing about sixty pounds of copperas in a barrel of water.

4. *Body and Bed-Clothing, etc.*—It is *best* to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows:

(*a*) Cotton, linen, flannels, blankets, etc., should be treated with the boiling-hot zinc solution; introduce piece by piece, secure thorough wetting, and boil for at least half an hour.

(*b*) Heavy woollen clothing, silks, furs, stuffed bed-covers, beds, and other articles which cannot be treated with the zinc solution should be hung in the room during fumigation, their surfaces thoroughly exposed, and pockets turned inside out. Afterwards they

should be hung in the open air, beaten and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten.

5. *Corpses* should be thoroughly washed with a zinc solution of double strength; should then be wrapped in a sheet, wet with the zinc solution, and buried at once.

Metallic, metal-lined, or air-tight coffins should be used when possible; certainly when the body is to be transported for any considerable distance.

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DOMESTIC POISONS.

The cases of poisoning by a variety of fabrics and utensils in domestic use, if all were known and fully investigated, would excite sufficient attention to secure legislative action, to say the least. So fatal have been the effects, and so clear the connection between poisonous coloring matter used in candies and the results, that the use of the more active poisons has been about discontinued in their manufacture, and the principal adulterant now used is terra alba, which does not kill, but only produces dyspepsia and minor ills. Unhealthful coloring matters are still used, but the more deadly have been discarded.

Lead and zinc are often used so that vegetable and fruit acids disolve them in directly harmful proportions. A variety of granite ware was found to contain soluble lead. If rightly manufactured, although lead is used it is rendered insoluble and therefore harmless. Canned meats were found contaminated by lead used in the solder. As stated before, little danger is now to be apprehended from either of these sources, but the carelessness of manufacturers of articles in domestic use in the handling of poisons borders on the marvelous. Their confidence in the protecting powers of Providence or some other agency is apparently unbounded.

One of the most striking illustrations was brought to the attention of the Board resulting from poisoning from aniline dyes. A

blue veil worn once caused an extensive and well nigh fatal eruption of the face, lasting for months, producing most distressing as well as dangerous effects. The mouth, tongue, and throat were involved as well as the face, as often in arsenical poisoning. The eruption caused great pain, was accompanied by swelling of the face and discharge, intolerance of light, and weakened sight for a long time after convalescence was established.

The veil on examination was found to be colored by a poorly made aniline dye. When placed in water it readily yielded up its coloring matter; this on examination was found to be aniline containing a large percentage of arsenic. Arsenic is used largely in the manufacture of aniline dyes, but if properly made nearly all is removed, and the small quantity remaining is fixed—that is, rendered insoluble. In this case the arsenic was not removed to any great extent, nor was it rendered at all insoluble. The use of a dye containing so large a percentage of arsenic in so readily soluble a form should be punishable by a heavy fine, to say the least. This is the most aggravated case we have known. Several minor cases from the use of the same class of dyes used to color flannels and stockings have been brought to our notice, but in these cases the neglect was in fixing—that is, rendering insoluble—the small quantity of arsenic that remains when the manufacture of the dye is completed. In the case of the veil, however, the large percentage of arsenic used in manufacture was not removed, neither was there any effort made to render it insoluble. A test, therefore, of the worst type of these dyes would be their solubility in water. The eruptions they produce are well marked, painful, and quite lasting. We have seen no fatal cases; that induced by the veil was very nearly fatal.

The effect produced by arsenical wall papers is now pretty well understood, so that the market for the sale of bright greens and the like tints is not very good; still arsenical dyes are used in papers not so readily recognized by the public; some white papers are as heavily loaded as the green, and dull greens are as dangerous as the bright. Dr. Taylor of London, an authority in medical jurisprudence, states, "The pigment of arsenicated wall papers contains a large proportion of arsenic, and from some of these papers in the unglazed state the noxious material may be easily scraped or removed by slight friction; thus arsenic is liable to be distributed through the air of the room in the state of fine dust." Workmen who hang these papers often suffer from chronic arsenical poison

ing. "Green arsenical lamp-shades have doubtless caused headaches, irritation of the eyes, and other symptoms that have been attributed to the use of coal gas, but the mischief was no doubt due to the arsenic in the shades."

A very obscure case, which was obstinate and failed to yield to the usual remedies was thus caused. The symptoms were severe, burning pains in the stomach, nausea, headache, alternate constipation and diarrhœa, loss of appetite, excessive thirst, nervous twitchings, shortness of breath. As soon as she was removed from her work these symptoms disappeared, to return as soon as her employment was resumed. The case was discovered to be one of chronic arsenical poisoning. Her employment was to put bright green bands around packs of envelopes. The end of the band was gummed, and in moistening this with the tongue enough arsenic was absorbed to produce the symptoms described. She was supplied with a sponge and no further trouble ensued. Experience in the envelope works in Hartford has demonstrated the necessity of care in handling the bright green arsenicated paper.

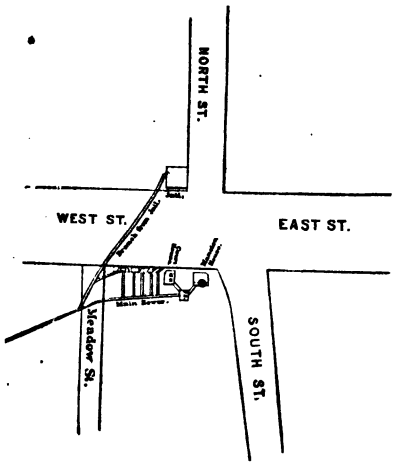
Poisoning from the manufacture of artificial flowers used in millinery has repeatedly occurred, and several deaths and untold suffering have been thus caused. It would almost seem justifiable to prohibit the use of arsenic altogether in domestic fabrics of all kinds, even at the sacrifice of some bright tints and colors. In the case of aniline dyes they are all manufactured by the aid of arsenic—mauve, scarlet, and bronze, as well as green; and unless it is rendered insoluble harm may result. Gloves, veils, stockings, flannels, and woolen goods generally, in fact anything worn next the skin, should not have soluble or readily soluble coloring material. The following was lately reported by Dr. Geo. A. Rees to the London *Times:* "I have had occasion more than once to bring cases before the notice of the medical profession in which severe symptoms were experienced by patients who were being slowly poisoned by arsenic. This slow poisoning is going on at present very extensively. I have described a sad instance of poisoning by an arsenicated coloring matter contained in the green calico lining of some bed curtains. For months and months this source of poison was not discovered, and the symptoms were treated as those of natural disease. On the removal of the curtains the patient at once regained her health. There is another source of arsenical poisoning of which I have only lately been informed. It exists in the coloring matter of a green muslin much used for

ladies' dresses. Dr. Debus, our Professor of Chemistry, who examined the curtain lining before mentioned, suspecting this, purchased a specimen for analysis. It proved to contain upwards of sixty grains of an arsenical compound in every square yard, and so slightly incorporated that it could be dusted out with great facility."

The examples in England of fatal effects from the use of violet powder containing arsenic were widely published, and show how readily arsenic can be absorbed through the skin. I have been largely indebted in presenting this subject to a little work by Henry Carr of London, Eng., on our domestic poisons, to which the reader is referred who wishes further illustrations of the use of arsenic and aniline carelessly and the evils that ensue. The quotations are from that excellent little work. The cases related were brought directly to the attention of the Board.

THE SEWERAGE OF LITCHFIELD.

The following brief account of the sewerage of Litchfield is given in order to record one of the important sanitary movements of the year, and for the benefit of other towns that may be contem-



plating similar work. The introduction of a public water supply and of a system of sewers should be as simultaneous as possible. With the use of Field's flush tank, illustrated in the circular on drainage, the sewers can be flushed even if there be no general water supply.

The sewer in this case drains all cellars and sinks of the district through which it passes. The laterals connected with the houses are flushed by cistern overflow; these are all trapped. The main sewer is flushed by water from the court house roof discharging into a flush tank, which works automatically. The main sewer is about a quarter of a mile long and has a fall of thirty-five feet. I am indebted to Dr. Deming for this account of the sewerage system.

LOCAL HEALTH BOARDS.

Consultations with different local organizations have been frequent during the year. The use of small streams for the disposal of sewage has several times been brought to the attention of the Board in this way. This is a more or less common sanitary nuisance—a small brook is made the receptacle of house drainage, or contaminated by direct sewer discharge, until the volume of filth it receives is so great that the brook becomes in fact an elongated cesspool. The brooks thus used become a standing menace to the health of the neighborhood, and are accompanied by an undue prevalence of zymotic disease in the region surrounding. Radical measures for the relief of such conditions have resulted, in several instances, from the attention that has been directed to them. In many cases these are suffered to exist from simple negligence. The condition of the brook is a matter of gradual growth, and it thus escapes attention until it reaches considerable magnitude and becomes directly prejudicial to health. In the now historic instance of Over Darwen, more than a hundred deaths were caused from contamination of the water main by infiltration through the soil of the excretions of a typhoid fever patient. More recently, at Caterham and Redhill, twenty-one deaths were caused by pollution of the water supply by typhoid excretions. The danger of using small brooks as sewers becomes apparent, as they often run within communicating distance of wells, and thus the excretions from typhoid fever patients might find their way into drinking water.

The following account of an epidemic of diphtheria in Groveton, New Hampshire, is too instructive to let pass. There were 114 cases, fourteen fatal. The center of the infection was the school-house; this was situated twenty rods back of a mill-pond and at the foot of a small mountain. One of the brooks had been dammed by the boys and its current turned, so that in rainy weather it ran under the school, leaving at other times a stagnant pool. A boggy meadow was near the school-house; privies which had

not been cleaned for two years overhung this. At the head of the pond was a saw-mill and tannery; the sawdust and tannery refuse were thrown into the pond. This pond was drawn down to repair the dam, and often filled at night and emptied during the day. An intolerable stench was caused; twenty-two cases of diphtheria among the scholars broke out in thirty-six hours; the disease soon became general. The village was located in the adjacent valley. There was no diphtheria near, nor no visitors to or from infected places. The disease arose apparently *de novo* from filth. Its simultaneous appearance in widely separated places forbade the idea of contagion. Typhoid fever succeeded the diphtheria; but when the pond was kept full, the disease disappeared. (Reported by Dr. Watson of Groveton.)

It is not enough to secure a supply of pure well-water. Care must be taken to keep it pure and prevent the access of foul drainage.

The construction of reservoirs for the storage of a public water supply, and the nature of the water-shed best adapted for the collection of drinking water, has been brought before the Board, in consultation with local organizations. Wherever uncultivated land can be obtained for a reservoir, it is preferable; nor is a peat bottom objectionable if the water is of sufficient depth over it. The only objection to water collected from a peaty soil is the coloration, and this does not result from organic contamination, that is, from products of decay. In case of a storage reservoir the coloration is soon removed by oxidation. In case of a distributing reservoir a peaty bottom is decidedly objectionable.

All decaying vegetable materials should be removed, and the soil for several feet from underneath old buildings, haystacks, in fine, in any case where soil infiltration may have ensued from use of the soil for building sites or storage purposes. The effects of soil contamination are beginning to be understood.

The adulteration of foods has in a few instances been investigated. These are of three kinds: (1) Deleterious. (2) Fraudulent. (3) Accidental. The first are substances directly injurious to health; the second are simply for purposes of gain, and are far more common, as the substitution of glucose for cane syrup, a substance not harmful but containing much less saccharine qualities and of inferior value; Indian meal in mustard is another familiar example. Some work in this department has been done during the year, but a more systematic study is planned for

the ensuing year. In connection with the examination of the sanitary qualities of drinking water, chemical examination of foods will be undertaken more extensively. Cream of tartar is one of the substances most frequently adulterated, but the worst substance added is terra alba, the same that is used in candy. Adulteration is not, however, so common as sometimes represented, and is, as before stated, oftener for the purpose of passing off an inferior article for one of greater intrinsic value.

Accidental impurities often are found that are incidental to the manufacture of the article, these are to be expected and are to be carefully distinguished from those added by design. So far as we can judge the most extensive mischief arises from the adulteration of milk, and doubtless a large percentage of the infantile mortality of large cities is due to the lack of nutritive qualities in milk whose standard has been lowered by the addition of some foreign substances. Water alone will not answer, as it lowers the specific gravity, and renders the vender liable to detection. The substances added are not hurtful in themselves, but the nutritive quality of the milk is diminished. The use of glucose for sugar, and the sale of adulterated or skimmed milk for the genuine article, are perhaps as common as any.

There is no satisfactory model to copy after in framing laws to prevent and control the adulterations of foods, drugs, and medicines. The English law is perhaps the best, but it does not, in practice, always work smoothly and efficiently. The chances for evasion are very great. During the ensuing year it is expected that our sanitary laboratory will be established for the examination of air, water, and food, if we can accumulate a satisfactory balance for obtaining the necessary appliances.

PROSPECTIVE SANITARY WORK.

The establishment of a complete Sanitary laboratory has already been alluded to. At present we are able to make qualitative chemcal examinations of drinking water, and microscopical examinations. The quantitative work has thus far been kindly performed at the Agricultural Experimental Station. The sanitary examinations of air, water, and food if made directly, would add a valuable feature to our work. We desire also to make arrangements for a systematic study of climatology and the meteorological conditions that influence health. The topography of the State in relation to local manifestations of disease is one important department that we

are now ready to study systematically. The results that await investigation in this field are of the greatest interest and importance. The investigation of local conditions offer opportunity for almost unlimited endeavor. The relations of climatology and meteorological conditions, however, should not longer be ignored. The lines of effort already established will be maintained as their apparent usefulness is constantly increasing.

The following additions have been made to the library of the Board during the year:

Hygiene and Public Health, Buck, 2 vols.
Latham Sanitary Engineering.
Sanitarian, Vol. 7.
Report Michigan State Board of Health, 1878.
Wanklyn Water Analysis.
3d Report Wisconsin State Board of Health.
1st " Rhode Island " " "
2d " Colorado " " " 1878.
" Louisiana " " " 1866.
" Minnesota " " "
Sanitary Record, 1879.
Denton, Sanitary Engineering.
McLagan, Germ Theory of Disease.
1st and 2d Reports New Jersey State Board of Health.
Blake, Sewage Poisoning.
Report on Diseases of Swine, Agricultural Department, Washington.
1st Report Commissioner of Health, Milwaukee.
Annual Report Board School Visitors, Hartford, 1878–9.
" " " " " Bridgeport, "
Adams, Railroad Accidents.
Teale, Dangers to Health.
Annual Report City of Meriden, 1879.
6th Registration Report, Michigan.
Plumber and Sanitary Engineer, 1879.
Transactions Boston Board of Health, 1876–78.
" New Haven Board of Health, 6 numbers.
Robinson Purification of Water.
Day on Ozone.
McKenzie on Diphtheria.
Field Sanitary By-Laws.

Blake, Croup and Diphtheria.
Virchow, Infectious Diseases.
Winslow, Spiritualistic Madness.
Public Health Report, 1877, London.
Local Government Report, 1877, "
Rawlinson Sewage Disposal.
Report on Diphtheria in North of London.
Carr on Domestic Poisons.
Blythe's Practical Chemistry.
Scientific American Supplement, 1879.
Eggleston, Villages and Village Life.
Report School Visitor, Meriden, 1879.
Charter and Ordinances City of New Britain.
Annual Reports, 1877–78 " "
" " 1878, Hartford.
Report City Physician, Concord.
Proceedings Conn. Pharmaceutical Convention, 1878 and '79.
Report Health Department, Baltimore, 1878.
" " " Utica.
Report Water Commissioners, Hartford, 1878.
Ames' Odorless Excavating Apparatus.
Adams, The Public Library and Common School.
Northrop, Tree Planting, Lessons from European Schools.
6th Annual Report of the Local Government Board.
Report to Medical Officers of the Privy Council, 1876–77.
7th Annual Report of the Local Government Board.
Bowditch, Hygiene in America.
Calderwood, Relation of Brain and Mind.
Liebreich on School Life.
8th Annual Report of Local Government Board.
Manchester Health Lectures.
Fothergill, Maintenance of Health.
Timmins on Disinfection.
Erichson on Surgical Evidence.
Report of Committee on Hygiene of New York.
Richardson's Ministry of Health.
Varona, Sewer Gases.
Drysdale on Infectious Diseases.
Squibb on Adulteration of Food.
Somers on Children's Lives, How to Protect.
Manual of Nursing.

Parkes on Personal Care of Health.
Brown, Medical Register of New England.
Husband on Forensic Medicine.
Buchan on Care of the Sick.
Tidy Water Supply of London.
Morrison, Purification of Water Carried Sewage.
Report of Nashville Board of Health.
Report of Board of Education Connecticut, 1878–9.
Wilson, Summer and its Diseases.
Proceedings of Association of Medical Officers for Care of Idiotic and Feeble-minded Persons.
Sanitary Protection Association of Newport.
Address before Citizen's Auxiliary Sanitary Association, Nashville.
Reports and Papers before New Orleans Auxiliary Sanitary Association.
National Board of Health Bulletin.
Waring, Excremental Diseases.
Dr. Hart, Practical Hygiene.
Waring, Causation of Enteric Fever.
Jenkins, Healthy Homes.
Stephenson, The Fight With Infection.
Browne, Hygiene of the Voice.
Report of the Health Officer for San Francisco.
Nathan Allen, Lecture on the Education of Girls.
Report of Committee on Public Health, Relative to Lunatic Asylums, courtesy of Hon. A. T. Goodwin, N. Y.
Bartholomew, Address on Necessity of Educating the Public in the Principles of Medicine.
9th Report of the City Registrar of Albany, N. Y.
Derby on Anthracite.
Trans. American Medical Association, 2 vols.
Letheby on Foods.

C. W. CHAMBERLAIN.

TREASURER'S REPORT.

Expenditures from Dec. 1, 1878, to Dec. 1, 1879,	$1,738.48
Salary of Secretary,	1,000.00
Total,	$2,738.48
Cash on deposit,	464.95
	$3,203.43
Bills outstanding, about	$250.00

RECEIPTS.

Cash,	$3,000.00
Balance from old account,	203.43
	$3,203.43

TOTAL EXPENSES OF THE BOARD SINCE ITS ORGANIZATION, JULY, 1878.

Cash expended,	$3,285.05
Cash received,	3,750.00
Balance on hand,	$464.95

C. W. CHAMBERLAIN, M.D.,
Treasurer.

Approved.

C. A. LINDSLEY, M.D.
Auditor.

GENERAL STATEMENT OF EXPENSES.

Salary of Secretary,	$1,000.00
Blanks and Record books for Vital Statistics,	875.17
Sanitary Engineers,	378.00
Traveling expenses,	140.75
Photo-Lithograph Company,	99.90
Library,	138.00
Postage and express,	48.87
Incidentals,	21.75
Stationery,	36.04
Total,	$2,738.48

Books for town records of vital statistics form a larger element in the expenses of the Board than will ever be likely to occur in any one year again ; between five and six hundred dollars are called for by that item alone. The expenses for certificates of births, marriages, and deaths are proportionately larger, as a general supply was called for as a necessary result of a change in the forms. Like expenses will not again be incurred. so that we shall have more funds directly available for sanitary investigation and work. We have made it a rule to keep a working balance in the treasury in case of the outbreak of any epidemic, as without the "sinews of war" we should be powerless to accomplish anything even in the face of the greatest danger. Our thanks are due to the zealous laborers who have given time and effort so freely to aid our work. As an example, the location of every case of diphtheria in Bridgeport for two years was verified by Dr. Wordin, in the construction of the map published in our last report, yet the only reward was the consciousness of work well done. Almost invariably we find all classes of persons willing to aid us in all possible ways. The topographical work that requires to be done to elucidate the local conditions influencing disease, and the study of climatology and meteorological conditions, demand attention as soon as means are available.

REPORTS

OF

SPECIAL COMMITTEES.

ON THE SEWERAGE OF INLAND CITIES,

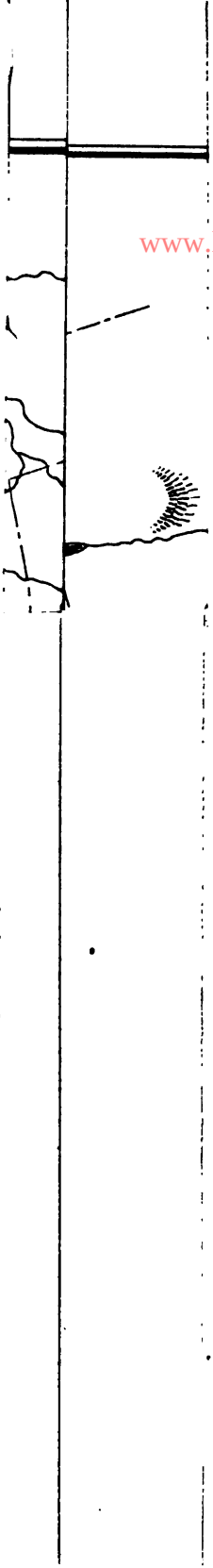
DR. C. A. LINDSLEY,
PROF. W. H. BREWER,
DR. C. W. CHAMBERLAIN.

ON STATES PRISON INVESTIGATION,

PROF. W. H. BREWER,
DR. C. W. CHAMBERLAIN.

ON POLLUTION OF STREAMS,

PROF. W. H. BREWER.



THE SEWERAGE OF MERIDEN.

This subject was first brought indirectly to our attention by the petition of the inhabitants of South Meriden, Yalesville, and Wallingford, with reference to the pollution of Harbor brook and the Quinnipiac river from the sewage and manufacturing waste received by Harbor brook in its passage through Meriden, which place it entered as a comparatively pure stream, and, as was claimed, was so contaminated that the health of the inhabitants of these villages was seriously impaired in consequence. In investigating the subject it was soon evident that the health of the city of Meriden was as much involved as that of the villages mentioned, and much more so than that of the more distant villages, and that the real point at issue was the disposal of the sewage of Meriden, without detriment to the health of its own citizens or of its neighbors. As an invitation was later received from the Mayor and Council of Meriden to investigate the sanitary condition of that city, the whole subject will be discussed under that heading to avoid unnecessary repetition, as the discussion of the points involved in the following letter from Mayor Lines includes all the topics presented by the petition before mentioned. The letter is as follows:

MERIDEN, August 6, 1879.

DR. C. W. CHAMBERLAIN,
Secretary State Board of Health:

DEAR SIR: Pursuant to a vote of the Common Council of the city of Meriden, passed Aug. 4, 1879, the undersigned have the honor to invite the State Board of Health to inspect said city with reference to its sanitary condition, our desire being that you visit us within the next two weeks if possible, or as soon thereafter as practicable—the wish of the city government being to have the advice of competent and disinterested men as to what action should be taken to promote the health and cleanliness of this city without causing damage or unnecessary annoyance to our neighbors. We trust it will be convenient and agreeable to your board to make this examination, and that your report shall cover the whole ground. We shall be very glad to afford you every facility

possible, and hope the result will be to the advantage of Meriden and all her neighbors.

Very Truly,
H. WALES LINES, *Mayor.*
JOHN L. RICHMOND,
Chairman Health Com.

Prof. Brewer, Dr. C. A. Lindsley, and the secretary were appointed as a special committee in response to this invitation, were directed to make a complete and thorough study, and were given ample authority to employ experts, procure maps, charts, and surveys whenever requisite. A complete topographical survey of the city of Meriden was obtained from S. C. Pierson, city surveyor of Meriden, and a map of the basin of the Quinnipiac from special surveys, the maps of the coast survey, county and township maps. The relative position of these towns and villages is well shown, and the location of every dam on the river. The map of Meriden shows also the density of population, the location of the principal manufactories, as well as the level of the streets. The sharp grades and abrupt changes of level are important elements in the problem.

The city lies in a circular basin, surrounded by mountains, and as will be seen at a glance, has but one outlet for drainage—by Harbor brook and the Quinnipiac river; this much is settled by the topography of the place.

The study of the questions involved in this case includes more points of general interest and importance than any that have been brought before the Board, and we have endeavored to make our work as thorough as possible. The latest phases of the sewage disposal question have been stated in our general report. This is in advance of any action yet taken in this country, and the irrigation plan has not been tried here on a large scale. How much the deep frosts of this country would interfere with the process is not absolutely determined, although there seems no reasonable doubt after the experience of Worcester and Lenox. It is not, however, claimed that the ideal has yet been reached with reference to the ultimate disposal of sewage, only that this plan is the most satisfactory yet devised, and by far preferable to the deposition or precipitation methods. The irrigation and filtration plan certainly promises to be unvaryingly successful.

Many of the questions involved here belong to the domain of the sanitary engineer. We at the outset availed ourselves of the

services of one of the most eminent and well known experts in that department, Col. Geo. E. Waring, Jr., whose report is here included. We have been largely guided by his judgment and present his opinions on many points, resting upon the authority of an expert in matters concerning which we can, from the nature of things have but a general knowledge.

The question generally stated is, therefore, about as follows: The city of Meriden, a rapidly growing city, with large manufacturing interests, having introduced a plentiful supply of water, must of necessity be sewered; how, therefore, can the sewage and manufacturing waste be disposed of without injuring the health of its own citizens or that of its neighbors? The brook which flows through the city is manifestly inadequate to safely dispose of the sewage, moreover, its course is obstructed by a dam near the city, which adds to the present unhealthful condition, delaying the outflow of the sewage, and thus promoting putrefaction. If the sewage and manufacturing waste can be rapidly removed and sufficiently diluted, the problem is solved. The manufacturing waste is, with the exception of that from the woolen mill, beneficial to the sewage rather than otherwise.

The small brooks which are used as open sewers are often overtaxed, and, in one or two instances, soil saturation is directly produced thereby. The present outbreak of diphtheria commenced in one such locality, that had been selected for thorough overhauling by the Board of Health. The maps indicate the volume of water that flows in the different streams proportionately, also, the probabilities of the Quinnipiac providing a never-failing volume of water for the proper dilution of the sewage. The subjoined letters* give the results of direct investigation.

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* DR. C. W. CHAMBERLAIN,

DEAR SIR: I have this day measured water running in Quinnipiac River, below Hanover Dam, and find the same to be 4,270,000 gals. to the hour. Have also measured the run of Harbor Brook in this city, just below Miller St., and find result 495,600 gals. per hour. I measured the Quinnipiac in the tail race of the cutlery works, the water just dripping over the dam (allowance duly made and added for same), time, 10 A. M.; and at 11.30 measured Harbor Brook. In both cases, of course, the water is rather low. I measured the river and the brook last March, when more water was running, and in both measurements the ratio of brook to river is nearly 1 to 9.

Respectfully yours, S. C. PIERSON.

The different points involved in the case are pretty thoroughly presented in the report of the Board to the Common Council, with that of Col. Waring. An abstract of Col. Waring's paper, read at Nashville, which was also sent with the other papers, is given here, as it describes the plan advised.

OFFICE OF THE STATE BOARD OF HEALTH,
STATE HOUSE, HARTFORD, NOV. 15, 1879.

To His Honor H. Wales Lines, Mayor of the City of Meriden, the Honorable Court of Common Council, and John L. Richmond, Chairman of the Health Committee:

The following report is respectfully submitted in response to your invitation to inspect the City of Meriden, and make such report as would cover the whole ground of the sanitary condition and requirements of the city. The questions involved have been somewhat intricate, and we have endeavored to give them sufficient and exhaustive consideration, with the aid of expert advice on matters that specially required the skill and training of the sanitary engineer. With reference to the organization of the health department, we would make the same recommendation for Meriden as for most of the cities in the State, that a permanent health board be established, with five members, three of whom should be physicians, to serve for a term of three years, with the Mayor chairman *ex officio*. The value of such an organization in inaugurating and

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DR. C. W. CHAMBERLAIN,

DEAR SIR: I have this day visited Hanover, and obtained the information you desired. Saw Messrs. Howell and Cady, practical managers of the Cutlery Co., who stated that no one had kept statistics, but in their observation the following things may be counted on: In 1868 there were six weeks when water did not flow over the dam at all. (They had kept the wheel running the usual running time, 10 hours.) They think that during the last two years there have not been more than six nights that the apron was not wet.

In dry times the ten hours' run draws the water down twelve inches.

For an average of all the years of their connection with the company (more than eleven years) the water has run over the dam 75 per cent. of the time while the power was in use.

Altogether it shows a very *uniform* and copious flow of water in the river. Mr. Cady states that he has had considerable experience with different water privileges, but considers this Hanover Pond the finest in that particular (uniformity).

Respectfully yours, S. C. PIERSON.

carrying forward systematic measures for improving the sanitary condition of the city would soon be demonstrated. The use of the small streams as open sewers is to be deprecated, and when they are manifestly inadequate, cemented vaults should be required by city ordinance, this subject should be placed under the direction of the health board, as also the systematic scavengering of the city, which should be regularly and thoroughly provided for at the public expense. Proper receptacles for the storage of garbage, ashes, and refuse should be required by ordinance, to be emptied by the public carts.

All minor points, however, might be safely left to an intelligent local board of health, which should have power to make and execute all such regulations, all expenditures to be regulated by the Council, as in other departments of the city government.

The zeal and activity of the present Health Committee are worthy of all commendation, but the nature of their work, indeed, has brought them to about the same conclusion as we recommend. It is established beyond controversy that the rapid and complete removal of waste and excrete matter, or the sewerage and drainage of a city, is essential to comfort and health, is a prime necessity under all conditions, and rendered especially necessary when an abundant and constant water supply is provided. This Meriden has exceptionally good, both as to quality and quantity, but with no system of sewerage. The retention of refuse and excrementitious matter for any lengthened period of time in privy vaults, cesspools, slaughter-houses, or in any other places in the midst of towns or inhabited districts, and the saturation of the soil creates a nuisance dangerous to health, and has a close and causal relation to the prevalence of disease. The importance of thorough and systematic drainage, by which the subsoil water of wet districts may be lowered and be preserved from pollution by the filth and refuse of towns, is beginning to be recognized. Malarial diseases have thus been caused to disappear from special localities and wide areas of country, while consumption, the peculiar scourge of New England, has been notably diminished in frequency, as repeatedly demonstrated both in this country and Europe, and the general healthfulness markedly increased, as shown in lessened sickness and death rates.

The drainage of the low lying land in the central portions of the basin or valley of Harbor Brook is impeded by the dam a short distance below the town, and, as a matter of course, the natural

drainage of the whole region is interfered with, and subsoil moisture retained in the higher levels as well as the lower. This necessarily favors the existence and prevalence of malarial diseases, and would be ground enough to recommend the removal of this dam, if for no other reason. The lowering of the bed of the stream and its use as an outlet for the surface drainage, as recommended by Col. Waring, would still further aid in complete drainage of the district, and conduce to its general healthfulness.

The present defective methods of disposal of the sewage affords examples of the most dangerous and offensive forms, and those conditions most detrimental to health. A large proportion of the sewage and manufacturing waste finds its way to Harbor Brook; by the dam below the city a settling basin is formed, extending up the ravine nearly to the borders of the city, and from the intermittent use of the water, from the reservoirs above the city the banks for a considerable distance are alternately covered and exposed. While covered the solid material of the sewage is deposited, and when exposed to the sun, dried, and taken up into the air, to carry the germs of disease and pollute the air along the course of the stream. The pond thus formed during a considerable portion of the year is a mass of putrefying and decaying sewage, pouring deleterious gases into the air. These can be seen bubbling up through the turbid fluid, and a thorough analysis further demonstrated the nature of the processes here taking place.

The question whether Harbor Brook furnished sufficient volume of water to dilute the sewage and manufacturing waste of Meriden, so that it would be safely disposed of by aeration before decay and putrefaction should commence, is largely a question of sanitary engineering, so that in our conclusions we have been largely guided by the opinion of Col. Waring, who was employed by the board to investigate the whole field, with reference to an outlet for the sewage of Meriden. The amount of sewage material now to be found at different points was also ascertained by careful analysis, the results corroborating the conclusions reached before from the conditions of the case.

As it is a matter of constantly increasing importance and necessity that the city be provided with an adequate system of sewerage, the question arises: How can this be accomplished, so that no interests be jeopardized? This result can be permanently and effectually secured by providing a trunk or main sewer, whose outlet shall be below the dam at South Meriden, and the disposal of the

sewage by irrigation and filtration upon the land which is there naturally favorable for such use. This, in a sanitary sense, is the most satisfactory solution of the problem. The experience of other cities similarly situated has proven its value, and there is little question that sooner or later some such disposition would be made, even if at first the plan was adopted to use the river. By adopting this course at the outset all harrassing and needless litigation would be avoided, and the question satisfactorily settled for all time. By combining the system of filtration and irrigation less land would be requisite, and a better provision made for the winter months. The experience of some thirty or forty cities has demonstrated the value of this method; its permanency is shown by the use of the meadows near Edinburgh for hundreds of years, as after the first outlay but little care and superintendence is requisite. The tendency is strongly towards this method of the disposition of sewage wherever practicable, unless it can be discharged directly into the sea, and to the absorption method rather than the cesspool system, wherever a small lawn is available. In all probability the sewage would be sufficiently diluted if discharged directly into the Quinnipiac, below Hanover dam, near the junction of the mill-race with the river. In the opinion of Col. Waring, this would be a satisfactory disposition of the sewage for a city much larger than Meriden. Or subsidence tanks might be provided, and the resulting sewage settlings, mixed with the ashes and garbage of the city, be used as a fertilizing material for the plains below Meriden. The most satisfactory, and, in the end, cheapest and best disposal of the sewage, however, is by the method of irrigation and filtration first indicated.

By order of the State Board of Health,

C. W. CHAMBERLAIN, *Secretary.*

JOHN S. BUTLER, M.D., *President.*

The following is Col. Waring's first report, which was subsequently confirmed. An estimate will be given in appendix of the expense of the system.

Dr. C. W. CHAMBERLAIN,

Secretary State Board of Health, Connecticut:

DEAR SIR:—After an examination of the conditions affecting the questions submitted to me in connection with the sewerage of Meriden, I beg to report:

I. The delivery of a considerable amount of household drainage and of manufacturing waste into the Harbor brook within the city of Meriden, now existing, may reasonably be considered a legitimate subject of complaint on the part of those who reside near the Hanover pond, in which the waters of the Harbor brook are arrested. If there exists in the village of Hanover a specially bad sanitary condition, it would certainly be reasonable to ascribe it largely to this fouling of its pond.

Naturally, as Meriden grows and as more of those living near the brook and its branches seek to relieve themselves of the inconvenience of overflowing cesspools by discharging the surplus waste into these streams, this difficulty will increase and become more serious. I should say, however, that the probabilities are that Meriden itself will suffer quite as much from the arresting of foul matters along the course of the brook and in Andrew's pond, as the people of Hanover can from the deposit in their own pond.

II. So far as the village of Hanover is concerned, the difficulty will of course be seriously aggravated by the carrying out of any comprehensive system of sewerage which shall have the effect of delivering into the Hanover pond a very increased amount of organic waste, all of which will be carried directly to the outlet of the sewer, instead of lodging, as much of it now does, along the course of Harbor brook. Even the present amount of sewage, if delivered through pipes so that it would all be carried forward to the outlet, would become much more serious, so far as the village of Hanover is concerned. Of course, the adoption of any sewage system will lead to a very great increase of such delivery.

The execution of the system of sewerage at present contemplated by the city of Meriden would further increase the difficulty by adding a large amount of road wash to the household and manufacturing wastes above referred to. I therefore suggest that it should be made a condition precedent to the carrying out of the proposed system of sewerage in the city of Meriden, or of any other system of sewerage that may be substituted therefor, that, *as the beginning of the work*, an outlet sewer should be constructed to deliver at a point below the Hanover dam. By the plan proposed, it is contemplated to deliver the sewage matter into the present bed of Andrew's pond, Andrew's dam being removed.

This would lead to the delivery of nearly the whole volume of sewage matter into the Hanover pond, which could not fail greatly to aggravate the present unfavorable conditions.

The delivery of the sewerage of Meriden into the stream at the foot of the Hanover dam would, in my opinion, remove every reasonable objection that the village of Hanover could bring against the carrying out of the proposed work.

In time, but perhaps in a very long time, as the population of Meriden increases, and as the banks of the Quinnipiac below Hanover become more densely settled, the population perhaps even as far down as Wallingford would be annoyed and endangered by the delivery into the river.

Should these conditions arise, it will be a very simple matter to purify the effluent during the summer season, when alone this will be necessary, by the agricultural irrigation of the lands a short distance below the village of Hanover and on the west side of the river. It did not seem to me, in my examination, that it would be either cheaper or better to attempt to purify the effluent by irrigation between Meriden and Hanover pond.

III. As the question submitted to me related also to the sanitary condition of the city of Meriden itself, I beg to call your attention to two considerations which seem to me important.

1. The plan of sewerage now contemplated for Meriden has in view the removal of a very large proportion of the storm-water—the water of all rains except such very severe or prolonged storms as occur only five or six times during the year. It is seriously to be doubted whether in a sparsely settled community, with a large surface area in proportion to the population, any country town or city like this can afford or needs a provision for removing storm-water by underground conduits. The plan proposed will be enormously costly in execution, and will still be inadequate for the only storms which could cause any damage to public or private property. There is at present no provision for an underground removal of storm-water, yet, so far as I can learn, no serious damage is ever produced by storms; and the slight inconvenience resulting from overflows, as at the corner of Main street and Veteran street, may be obviated by works of very trifling cost. If the idea of taking storm-water or surface wash into the public sewers is given up, and the size of the different sewers is adjusted to the removal of household and manufacturing waste only, the whole problem will become very much simplified.

The system of sewers which I have in mind would be sufficient for the removal of the waste of a population of 50,000, with a proportionate increase of its manufactures.

2. While the withholding from Harbor brook of all organic wastes, except the street wash, which would enter the stream only when considerably swollen by rains, would so ameliorate its condition as to remove the offensiveness of which complaint is now made during the summer season, it is worth while to consider the great improvement to the public health that would result from a sufficient drainage of the swamp which now occupies the heart of the city. This can be perfectly accomplished by removing Andrew's dam, and by lowering the bed of Harbor brook quite through the whole length of the city, so as to bring the surface of the water ten feet below the flat lands adjoining it. This improvement would be of only temporary value if it stopped at a simple deepening of the brook, leaving its shores and bed subject to disturbance by floods. It would be necessary to give a smooth, narrow, and permanent channel to the stream. With the grade afforded by the natural conditions the ordinary flow of the stream (the flow at the time of my examination) would be carried by a semi-circular channel five feet wide and two and one-half deep at the center. This channel should be, of course, securely paved with stone or planked to afford protection in time of flood. The sides of the channel above the edges of this gutter should be sloped back at least one and one-half horizontal to one perpendicular to the height or nearly the height of the stream.

Throughout a large part of the course, this slope could be sufficiently protected against the action of occasional floods by sodding. But in situations where grass would not grow, as where the stream passes under buildings, bridges, etc., the slope should be paved.

A similar improvement of the tributary streams of Harbor brook, reducing the level of the water to at least five feet below the surface of the ground, I am confident would result in an amelioration of the sanitary condition quite equal to that sought by means of sewerage.

Very respectfully yours,

(Signed) GEO. E. WARING, JR.

NEWPORT, R. I.

ABSTRACT OF COL. WARING'S NASHVILLE PAPER.

The arguments in favor of exclusion of storm-waters from sewers are in brief:

1. The increased cost of the large sewers.
2. Increased difficulty in ventilation with increase in size.

3. The larger become sewers of deposit, especially in hot weather, and their contents decompose.

4. The increased volume increases often the difficulty of satisfactory ultimate disposal.

5. The catch basins oftentimes become nuisances.

In the plan for small sewers the smallest should be six inches in diameter; no larger size until this with its branches, at time of greatest use, fill half full, and the size should then increase gradually. The interior should be kept perfectly smooth. Care should be taken to prevent roughness at joints. Terminal sewers should be provided with a flush tank at upper end to secure daily flushing. Sufficient man-holes to provide ventilation should be furnished—one every 1000 feet. Every house should be connected *without a trap*, but with soil pipe four inches in diameter running to a point above the ridge of the roof. The inlets to the sewer should be funnel-shaped, pointing towards the direction of the flow. The outlet, if water-locked, should be provided with means for admission of fresh air—if open, protected from winds.

The system of small pipe sewers for the removal of foul drainage, manufacturing waste for the most part, excluding surface and storm waters, is unqualifiedly recommended by the Board. The character of the subsoil favoring soil contamination, easily becoming "excrement sodden," is a strong argument in favor of impervious sewers. If constructed so as to allow the entrance of subsoil water, the sewers will of necessity allow the filthy sewage liquids to pass out. The drainage can be readily provided for by agricultural tile drains, if necessary accompanying the sewers, laid alongside them.

There is little doubt but that the health of Meriden and South Meriden have been unfavorably affected by the present disposal of sewage. The great prevalence of diseases of zymotic type, of malarial fevers, and depressing, debilitating forms of sickness, bear witness to this fact. The letter of Dr. Nickerson, a careful observer, is interesting in this connection:

MERIDEN, CONN., Sept. 28, 1879.

DEAR DOCTOR: My friend, Dr. Catlin, handed me your letter of the 15th inst. asking for information in regard to the malarial epidemic in our vicinity, and at his request I will make a brief reply.

When I came here from the army in 1865, I found frequent evidence of malarial infection, and early found that I was compelled to recognize that fact in my treatment of nearly all my cases

of disease. I met many instances of sciatic neuralgia, ophthalmia, bilious colic, dysentery, etc., of a decidedly intermittent type, and curable by the use of quinine in full doses. But after consultation with physicians, I think I am safe in saying that the first cases of well marked "chills and fever," so called, indicating the onset of a sharp epidemic, occurred in 1868, and they became more numerous until, on my return from Kansas, in 1870, I found it prevailing extensively in Meriden and vicinity, being especially severe in the village of Hanover, two miles south.

We had previously had two summers of unusually long continued heat, prostrating our nervous systems and rendering us peculiarly liable to malarial forms of disease. Gradually the manifestations of the attacks lost their purely nervous character, and we had the continuance during the interval of symptoms that pointed to chronic engorgement of the liver, stomach, and spleen. Bilious remittent fever, once a *rara avis* in New England, became the prevailing type of fever after a time, not so readily arrested during the first week, but in many cases developing typhoid symptoms after nine or ten days.

In 1875 the epidemic seemed to have reached its most violent point, and we have met less cases of decided intermittent, attended by marked chill, fever, and sweating, but we find very common all the phenomena characterized by the books as "chronic malaria," all cases being more persistent, more depressing, attended by more evidence of gastric disturbance, and less amenable to the usual forms of medication.

We now have typho-malarial fevers, bilious pneumonias, low types of dysentery, persistent enlargement of liver and spleen, accompanied by severe and obstinate cough, pains in the side, etc., rheumatisms of a decided malarial form, and a peculiar affection attended by spinal tenderness, and tingling in the extremities.

During the past five or six years we have watched, in connection with the above, the gradual development of a typhous element, complicating nearly all the malarial forms of disease. This we have attributed to our vicious hygienic surroundings, our increasing population, our want of any proper system of sewerage, all rendered more virulent by our liberal water supply. In other words, we have been once more illustrating the fatal experience of a growing city introducing a water supply without the compensating sewerage. This element has given us many diphtheroid diseases—croup, erysipelas, puerperal fever, etc., etc., which have been the main contributors to our large death list, and still continue with unabated force.

Practically all these should be considered as complications of the main epidemic—the malarial,—and my observations in Meriden during these years gives me confidence to affirm that more lives would be saved if we could, in our treatment of all the above forms, pay less attention to these complications and keep our eye

steadily directed to the epidemic extensively prevailing at the time. I remain, very respectfully,

Your obedient servant,

N. NICKERSON.

DR. C. W. CHAMBERLAIN,

Sec. State Board of Health, Hartford, Conn.

The existence of malarial fevers along the valley of the Quinnipiac is apparently part of the general movement, as there has been a steady encroachment upon new territory each year, both Hamden and North Haven below Wallingford have suffered much more severely than the villages between North Haven and Meriden; in Hamden and vicinity there was excessive mortality from typho-malarial and congestive fevers—twelve deaths in Hamden, and five in North Haven. So that the existence of malarial fevers in the region generally is part of a general epidemic influence whose causes and periods are not yet well understood.

The typhoid and low æsthenic debilitating forms of the disease are doubtless favored and induced by sewage emanations. In the opinion of Dr. E. M. Hunt of New Jersey, and others, malarial fevers are produced by excremental contamination of soil, water, or air, in the same general manner as typhoid. However that may be, there is little doubt of the baleful influence upon health of Harbor brook and its emanations in its present condition. The following analyses show that traces of sewage contamination can hardly be found by the time Wallingford is reached:

	Harbor Brook.			Quinnipiac River.	
	At Andrew's Dam.	Hanover.	Yalesville, Mix's.	Above Meriden.	Wallingford.
Total solids—grs. per gallon,	12.7	5.5	7.2	4.9	6.1
Of such, volatile below red heat,	3.0	2.2	2.7	1.0	1.6
Chlorine,	0.46	.23	.27	trace	trace
Free Ammonia, parts per million,	.93	.28	.315	.063	.076
Albuminoid Ammonia, parts per million,	.27	.07	.020	.032	.020

There is no very great difference between the last two, yet the first is water taken from the Quinnipiac river a mile above Meriden, between Meriden and Cheshire; the latter, water from the

lower end of the reservoir at Wallingford. All trace of sewage contamination has almost if not entirely disappeared; the difference, indeed, is not well marked. Following the course of the Quinnipiac from Yalesville to Wallingford in a flat-boat, it was found to be quite rapid often, and the water thrown into ripples and exposed to the air by frequent shallows and light falls and rapids. This condition of the river would indicate the possibility of a complete oxidation of the sewage if discharged into the river, the changes taking place so uniformly and rapidly that no gases of decay would contaminate the air, consequently no detriment to health ensue. If diluted with a proper volume of water, sewage can be disposed of by water carriage without detriment to the health of any living near the stream thus used. Of course, the less of such material finding access to our rivers the better, and we should advocate the purification of all sewage before its admission to any river; but if that cannot be secured, the next best plan must be followed.

The committee of the Common Council of Meriden have accepted the recommendations of our report with some reservations, as follows: (Since then an estimate of the cost of the small sewer system has been furnished by Col. Waring, and is given below. We here quote from the Meriden committee's report.)

"In the first place, Andrew's dam should be removed and the mud and filthy sediment cleaned out. We do not propose the lowering of Harbor brook through the city, for, among other reasons, the nature of the subsoil makes it too costly an undertaking, and we are convinced that when the railroad bridge is built and the deposits above that point removed to the established grade, the drainage will be satisfactory, or as nearly so as we can afford to make it. We favor the establishment of the bounds—sides, top, and bottom—of the several brooks flowing into the main stream, the capacity of the several streams to be such as will discharge the water of their sheds in times of great storms. We urge that the several streams, including Harbor brook, be regularly cleared of filthy deposits, the construction of pipe drains for large accumulations of storm-water. . . . . We advocate the disposal of sewage . . . by means of small pipes and a comparatively small trunk sewer to some point below Hanover dam, there to discharge into the river.

"ESTIMATE FOR SEWER.

Main trunk, 18 inch sewer,	18,400	feet, at	$1.30,		$23,920
15 " "	1,350	"	1.00,		1,350
12 " "	13,050	"	.82,		10,701
10 " "	16,775	"	.71,		11,626
8 " "	49,945	"	.59,		29,467
6 " "	63,820	"	.53,		33,825
					$110,889
Add for work, etc., - - - - -					15,000
					$125,889
15 per cent. for engineering, quicksand, etc., - -					18,883
-					$144,772
$10,000 for land drainage, - - - -					10,000
					$154,772

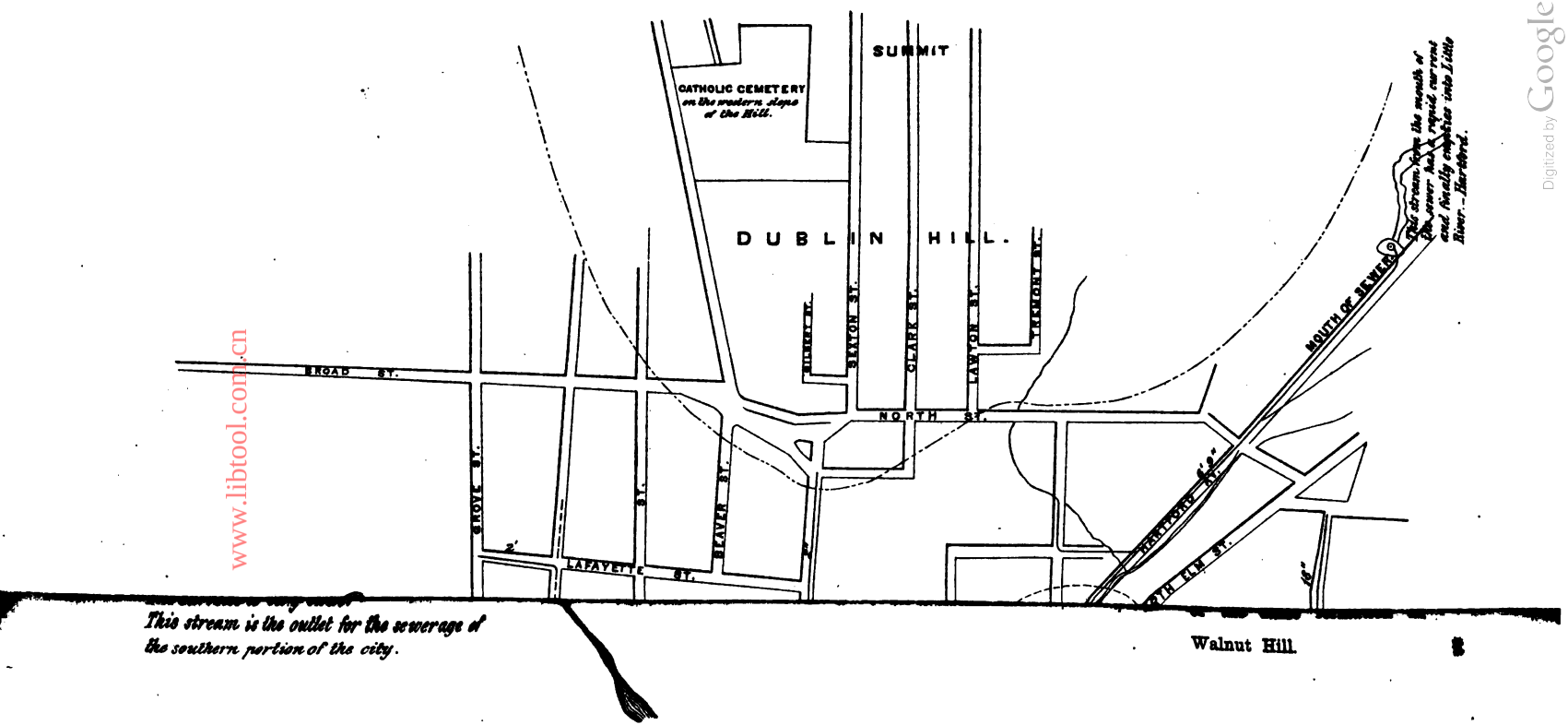
"The estimate formerly contemplated involved an expenditure of $550,000," that is sewers to include surface and storm-water, with outlet at Andrew's pond instead of below Hanover. The lessened cost of labor since the former estimate is probably offset by the difference in outlet.

NEW BRITAIN.

Like most of the older cities constructed before the value of the services of the sanitary engineer was appreciated, many artificial sources of water, air, and soil pollution detrimental to health have been caused as a busy, thriving, manufacturing city was developed from the straggling, irregularly arranged collection of buildings that first marked the site. Other than sanitary considerations generally control the location of cities and villages. Some natural advantages for manufacture or commerce control the selection usually, the higher levels are chosen for the construction of dwellings, the low lands used for shops, stores, and factories.

In process of time, however, as the necessity for tenements near the centers of work and trade increases, the low lands are utilized for buildings; swamps and hollows that have been filled in with refuse and garbage are used also as sites, and dwelling houses are constructed upon this reeking, fermenting, and in some cases excrement-sodden foundation. The natural slopes and levels receive no attention, nor in the process of grading, constructing new streets, and public works generally is the slightest consideration given to the outflow of the ground water when the provisions for its movement that naturally existed are carelessly obstructed and destroyed.

As a matter of course no thought is paid to removing conditions naturally unfavorable to free drainage. The relations of the level of the ground water to the healthfulness of a place have indeed been but recently recognized; as a general rule the lower the level of the ground water, that is, the further it is necessary to go below the surface before the water line is reached, the greater is the healthfulness of a place, and the nearer to the surface the ground water reaches the greater the unhealthfulness to be expected, with of course some exceptional conditions. The most unsanitary condition, however, is a constantly fluctuating level. This explains one of the natural disadvantages of New Orleans:



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

the ground water comes within two or three feet of the surface, and by constant action soon permeates the walls of vaults, cesspools, and the like, and allows seepage of their filthy contents. The ground water when polluted is a ready carrier of contamination constantly in action. After a while the occurrence of some epidemic, either caused directly or prepared for by the polluted ground water and contaminated soil, attracts attention to the unsanitary conditions that exist, and sewerage, and perhaps drainage, are considered.

One of the resultants of impurity of ground, air, and water—for we must remember that there is no vacuum in nature, and that the spaces between the molecules and particles of the soil is occupied by fluids or gases, and above the level of the ground-water these spaces are filled with air, which also is in constant motion, and is more or less laden with the moisture, and as a matter of course with all the pollutions of the soil and water. A cellar thus becomes an intercepting tank for the reception of the ground-air which is eventually drawn up into the occupied rooms. The ground-air contaminated by the gases from sewers and drains thus infests every nook and corner, and, as has already been stated, is drawn in by the difference in temperature creating an inward and upward draft in the house.

Each year as the population increases, the amount of waste and filth to be disposed of increases *pari passu*, and the distance between wells, cellars and houses and accumulations of filth of all sorts lessens. With sublime indifference to results, filth is allowed to accumulate in vault and cesspool, and few think of any regular and systematic methods of disposal, until compelled by actual necessity. Such receptacles are, as a rule, entirely neglected.

These are some of the unsanitary conditions that are caused by carelessness, and ignorance of the principles of hygiene. Public parks, drainage, sewerage, and a pure water supply are neglected as well, until the city has grown to considerable dimensions; last of all, and to be searched for far and wide, are school-houses, churches, and public buildings constructed and maintained in accordance with hygienic laws; these are not the first buildings constructed for such purposes by any means, but are the last of a series, resultants of a process of evolution. The development theory appears to fit in here charmingly, especially in the requirements it makes in the element of time.

At present there is no difficulty experienced in the disposal of

the sewage of New Britain. A good outline of the proposed system is given by the accompanying map. As will be seen, the greater part is to be discharged into one of the branches of Little river. This stream flows through the towns of Newington and West Hartford, joining the Little river in the latter place. It is a very rapid stream in the greater portion of its course, and flows over a pebbly bed varied with cuts through the clay. Its whole course was followed up by the committee of the Board, and several specimens of the water analyzed. In New Britain a brook of considerable size, in fact the head-waters of the stream, is turned into the trunk-sewer, and flows through it constantly, thus keeping the trunk-sewer flushed, and diluting the sewage. The sewers in New Britain receive the surface and storm-water, and as they are built of pervious material, act also in lowering the subsoil water.

The alternation of hill and lowland is indicated in the map. On the north and west of the city there are hills with an elevation of 600 to 800 feet, running north and south, and among these hills is Shuttle meadow lake, the source of water supply for the city. This lake is shown in the map of the basin of the Quinnipiac river situated just beyond the divide outside the area line of the valley of that river. The water is upland surface water. The pond is filled in summer with vegetation, which sometimes gives the water an unpleasant taste.

The pond is an artificial body of water, high, rocky cliffs rise abruptly on the east and west side, on the north the land rises gradually and is under cultivation. The water is carried 2¼ miles to the distributing reservoir on Walnut Hill, shown on the map. A million gallons per day is the average use. The water as stated becomes offensive in summer, and well water is often substituted. There are four public fountains in the city.

The area included within the city limits is four square miles, about one-fourth of this closely built up. The trunk sewer is half a mile long, and there are four miles of sewers constructed which empty into this; the smaller branch sewers are circular, 18 inches, of Akron pipe, brick, from 20 to 42 inches, egg-shaped. The trunk sewer is of brick, circular in shape, and is six feet ten inches at mouth.

Branch sewers are planned for the whole city. House connections in case of the sewers laid are not yet universal. So the question as to the capacity of the brook to dispose of the sewage is not yet fairly tested. As it does not touch any inhabited region

for some time, it may prove adequate to dispose of the sewage before it reaches closely inhabited regions, or any dwellings near its banks, as it flows through fields. The sewage would be unobjectionable in cultivated fields, as it would add to their fertility. Some enterprising farmer might now find it to advantage to construct channels through his fields to divert the stream and cause it to yield up a portion of its fertilizing material before it passes along. There is abundance of land well situated for irrigation, which offers a solution for the problem of the ultimate disposal of the sewage, should the capacity of the brook be overtaxed. The rapid current and the amount of vegetation along its banks favor the rapid disposal of the sewage. Already the meadows through which it flows take on a richer green for considerable distance along its course. As the stream runs, it has probably a twelve-mile course before emptying into Little river. The bends and turns are numerous.

A question arises, however, of more importance when the brook flows through pastures and is used for a water supply for cattle. Thus far not enough sewage enters the brook to cause any apprehension on this score, even in low water in summer, as the volume of water from the water supply would maintain some volume to the stream, also the manufactories contributing some from their reservoirs.

The spread of typhoid fever and diphtheria through the medium of milk, as described in the case of typhoid fever by Drs. Duncan, Ball, and others in England, and the epidemic of diphtheria in the north of London, reported by Dr. W. H. Power, attracted considerable attention, and the question was asked whether in the case of sewage water being drank by the cows the milk might not become infected.

In the instances above referred to the milk became infected by human agency after it was stored in pails or pans or in process of milking. Scarlatinal infection is believed to have been communicated to milk during the act of milking, by persons the skin of whose hands had been peeling during convalesence from that disease. "In Penrith a domestic servant suffering from typhoid fever was brought home to her parents, who supplied fourteen families from their dairy. Seven of these families took the disease. There had been no previous cases." In Dr. Ballard's report 107 cases occurred. The dairyman and two of his family had typhoid fever. The well was a few yards from the privy.

The handle of the pump was chained and locked. A sudden cessation of fever cases occurred about fourteen days later, just the incubation period of typhoid fever.

The milk becomes infected, therefore, in cases when it becomes the agent in the spread of disease. The washing of pails and cans in infected water would be sufficient to infect the milk. Unless, therefore, the cattle were made sick by the drinking of impure water, it is not easily seen how any danger could arise. Thus far cattle have refused to drink badly tainted water, and it is not probable that it would be consumed under circumstances that would render it noxious. What the results might be in case of a severe epidemic of scarlet fever or diphtheria in New Britain is a matter of conjecture. It is not, however, probable that the disease germs would survive passage through the digestive organism and secretory systems of the animal and infect the milk. There is a thousand-fold more danger of milk becoming infected by cases of infectious disease in the dairyman's family or the contamination of the water used about the dairy in cleansing the pans, etc.

A systematic removal of garbage should be provided, and greater care in disposing of the scavangering waste and the exclusion of garbage and offal from the material used in filling and grading. As the country becomes more densely populated greater care will be compelled in such matters. Next to sewerage a thorough scavangering ranks in the sanitary requirements of city.

The following mortality statistics are instructive :

	1875.	1876.	1877.	1878.	1879.
Malarial fever,	1	4		3	8
Typhoid fever,	11	7	8	1	1
Cerebo spinal,	7	2	1		1
Erysipelas,	2	1			
Dysentery,	1	1	2	5	1
Diarrhœa,	51	20	16	10	14
Scarlet fever,	1	1		17	9
Diphtheria,	11	54	31	6	7
Croup,	8	15	5	1	1
Measles,			1		
Whooping-cough,			1		
Consumption,	28	18	14	20	18

THE POLLUTION OF STREAMS.

PROF. W. H. BREWER.

This subject has been discussed in this State during the past year more than usual, but this is because of a growing interest in the matter rather than because of any new features. Special cases have been before the Board, but there has been no general investigation made by the Board or its committee sufficiently full to call for an extended report.

But throughout the world, every year shows a growing sentiment for the better legal protection of the purity of drinking-waters. This is much easier where the source is in springs or wells, because of the localization of such water supply; and yet, as a practical matter, it is often much more difficult to effect than it ought to be.

In the case of streams, it is vastly more difficult for a variety of reasons, not the least of which is that the manufacturing industries are affected, and moreover its relations to the general health is more extensive and varied. This question is now more generally before sanitarians than any other single sanitary problem, and as yet no solution has been reached which will satisfactorily reach all the difficulties. The best results are compromises which have been reached at the expense of other disadvantages. It is before every Health Board in some way. The International society for the prevention of pollution of rivers, the soil, and the atmosphere, held its third annual meeting at Baden Baden in September of this year, and indeed we may say that the whole civilized world is at this problem.

There are now over twenty places in this State with water-works, about three-fourths of which are public works, the others are private companies. Sixteen of these works supply places having an aggregated population estimated at 230,000. Anything so directly affecting the health of so many people in this State should

receive an amount of attention and study we have as yet been unable to give, further than to attend, as best we can, to the special questions when they arise. Any general report must therefore be deferred.

REPORT OF COMMITTEE ON STATE PRISON.

In April the Prison Commissioners asked the Board of Health to make a sanitary inspection of the State Prison at Wethersfield. In response to this, Dr. Chamberlain and Prof. Brewer, as a committee, have twice visited the prison, respectively on Tuesday, April 29, and Saturday, Dec. 6, 1879.

At the first visit a careful examination was made, and various things were found in the sanitary condition of the place which the committee found reason to criticise, and to make recommendations accordingly. At the time of the second visit, the sanitary conditions were so much better that the examination was not carried farther than to the shops, the yard, and the manure heaps in the rear.

Between the dates of these two visits, inquiries were made relative to other prisons; both members of the committee visited in person the Tennessee State Prison at Nashville, and one member the State Prison at Auburn, N. Y., and the State Prison at Richmond, Va., and inspected the sanitary conditions, arrangements and appliances, the hospital, and the method of keeping the hospital books. Every facility was most courteously afforded for their investigations.

It is impossible to say how much of the sickness and mortality of the year previous to our first visit was due to conditions beyond the control of the prison officials; and the method of keeping the hospital records is such that it is very difficult, if not practically impossible, to learn from them what the health or sickness of the prisoners was at any one date or period.

"The Cove" back of the prison is doubtless an unwholesome neighbor, but so long as the prison is where it is, this must be endured. The prison itself is faulty in its original construction. The hospital accommodations are not what they ought to be, and the committee think they should be bettered, and if the State concedes with these views and is ready to act, this Board will be glad to render any aid it can.

In the meantime the committee beg leave to make the following suggestions:

1. That the *insane* be treated elsewhere than in the prison. This ought to need no argument at this period in the history of prisons, and in the light of our present knowledge respecting the treatment of the insane—and, indeed, the committee have no new arguments to offer. A prison, and a hospital for the treatment of the insane, are so opposed to each other in all their objects and practices, save the one of isolation from society, that it ought not to be asked that the officers of the prison should manage both kinds of institutions. When the physician in charge, or any other properly constituted authority, is convinced that a convict is insane, every interest of humanity and the ultimate good of the State demands that he should be treated in the way which experience has shown as best for the insane, and by those persons to whom the State has entrusted the special care of such unfortunates.

DAILY HOSPITAL REGISTER

For the month of - - - - - - 18

DATE.	Patients in Hospital.	Out Hospital.			No. Excused from Work.	Whole Number in Prison.	No. Received in Hospital.	No. Discharged from Hospital.	No. Died.	REMARKS.
		No. Applications for Treatment.	No. Treated.	No. not Treated.						
1										
2										
3										
4										
5										
6										
*										
*										
*										
*										
29										
30										
31										
Total										

2. That a different system of hospital records be adopted. In all those other States where we have any special information pertaining to this subject, the records are kept much fuller and more systematically than in ours, and in some, if not in all, this fuller information is specially demanded by State laws.

We recommend that three books be kept for classifying hospital information, besides the daily blotter.

The first, which may be called the *Personal Record*, to contain the physical condition of each convict at the time he is received into the prison, (or when the book is opened,) and of his ailments later, that his condition during his prison-life may be learned without wading through the daily reports for the whole period.

The second to be a *Daily Hospital Register*, so kept that the sanitary condition of the entire prison as indicated by the sickness of the prisoners may be seen each day, the pages so ruled that each page will be the register of a month. A blank is appended marked A, as a suggestion. This has been suggested by and simplified from the "Daily Prison Register" used in the prisons of New York State, where the record is carried out to sixteen columns, but which we have simplified to nine.

MONTHLY HEALTH STATEMENT.

B	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
I. Zymotic.													
Malarial Fever, - -													
Typhoid Fever, - -													
Diarrhœa, - - - -													
Contagious Diseases,													
Other Zymotic Dis'es,													
II. Constitutional.													
Rheumatism, - -													
Consumption, - -													
III. Local.													
* * * * *													
IV. Developmental.													
Old Age, - - - -													
V. Accidents.													
Hurt in Shops, - -													
Other Accidents, -													
* * * * *													
Total, - - - - - -													

The third, which may be called *Monthly Health Statement*, to show the prevalence of each ailment for each month of the year. A blank, marked B, is appended as a suggestion rather than as an absolute model, the list of diseases to be as full as the size of the page will allow, but made fuller than my sheet shows. If preferable, such a statement might be made for each week, but we think that for each month will be on the whole better. In some States, such a monthly statement is required by law to be presented to the Legislature at the end of each year.

The value of such records as we have suggested will not, we think, be questioned, and that it is perfectly practicable for the hospital attendant to do it is proven by the fact that in other States they are so kept, and indeed much fuller than we have recommended. The plan for hospital records was submitted in outline to the physician in charge and the warden, and met their approval.

3. That the place in the rear of the yard used to deposit filth, to be sold as manure, be entirely covered by a roof, and that the material during the warm weather be removed as fast as it accumulates.

SPECIAL REPORTS.

DRAINAGE OF FAIRFIELD.

SICKNESS FROM IMPURE ICE.

DRAINAGE OF FAIRFIELD.

The following account by Mr. F. Sturgis of Fairfield presents a graphic account of the changes in that locality and the drainage work undertaken. The accompanying map shows the relation of the points mentioned. The letter presents the subject so fully that no further comments are required. With the omission of a few sentences, it is as written:

FAIRFIELD, November 25, 1879.

DR. C. W. CHAMBERLAIN,

Secretary of the State Board of Health.

My dear Sir: At the suggestion of Dr. Garlick, I beg to offer to you a summary of the drainage work undertaken and accomplished during this season in this village, and to submit for your consideration the reasons which have induced us to undertake it. The accompanying diagram will give you the relative positions of the various portions of the work, and will serve as explanatory of the general subject. Fairfield and Mill Plain I shall speak of as a whole, in order that I may cover the ground which has occupied our attention. This district is bounded on the west by Mill river, on the east by Ash creek, on the north it follows the course of Mill river until it reaches the hills, and on the south is bounded by the Sound. The lay of the land is first the sand beach, then an extent of salt meadows, then the two sections of flat land, comprising the thickly populated part of each village, and then the hills. The soil of Mill Plain is underlaid, with coarse, porous gravel down to the springs. That of Fairfield is underlaid in part with sand, and in part with loamy gravel, or in some places with hard pan. As you approach and rise to the hills, you meet spurs of rock, generally draining in lines parallel to the streams, and find a sandy, loamy soil mixed with coarse stones. My recollection of the physical condition of the locality goes back to 1840. Since then I have marked the changes by periods of years.

Commencing at the east, or Ash creek, in the past we found a tide stream of large volume, dammed at a distance of half a mile

from the mouth, and occupied by two large flouring-mills. The mouth opened at right angles with the beach, with a depth of water sufficient for sloops to go to the mills.

Now, we find the mills and tide-gates gone, the dams only existing as barriers to the proper flow of water, the creek gradually filling, the mouth no longer navigable, and the course of the stream turned parallel with the beach. Turning to Mill river on the west, we found a stream, forming at its mouth the harbor of Southport, occupied a short distance from the mouth by a tide-mill to which sloops could go, and about two miles above no less than four or five mills, all running. Now we find a harbor with difficulty kept open, the tide-mill running but seldom, and but one of the other mills in existence. The mill-ponds as a rule filled up with mud nearly to the surface of the water, and a constant accretion of mud in all parts of the river-bed.

Between the two streams mentioned there was Pine creek coming in from the Sound, with an open mouth, and furnishing a large volume of salt water for all the marshes of the village. In its wider parts, it had a width of 100 feet; as a boy I have crabbed from bank to bank with ample water at low tide for my boat. Now you find the old mouth closed by a large sand-bank, and the stream, making its way out parallel to the beach. The mouth is reduced in width, and in my opinion does not allow one-half the water to go in that formerly did. The channel is reduced in the wider parts to a width at low tide of twenty feet—the remainder being filled with mud on each side, scarcely covered at high tide. The portions of the creek where eel grass formerly grew as the mud has accumulated have become covered with a species of pest-weed. And in general, where formerly were wide ditches with abundance of water, you now find mud and but little water.

Drawing a line north through the middle of the village, you find the minor rills draining toward Mill river on the west, Pine creek on the west center, and toward Ash creek on the east center, and east, excepting those which drained into a pond called Hyde's pond, which lay on the west of the center line and which had no visible outlet.

The trees in this locality have increased largely in the past forty years. Then it would be called, perhaps, sparsely wooded, now almost densely wooded. In 1840 there was no railroad, and the hill-streams found their way without difficulty to their natural outlet. Now we find the railroad embankment cutting off many

of the streams with insufficient or filled up culverts, and in many instances no outlet provided. My remembrance of the health of the villages is that we had no thought of chills and fever, or malarial disease in any form. The growth of chills and fever has been gradual and increasing, until within the past two or three years it has been almost an epidemic. It has seemed to me that the atmosphere has entirely changed, during the summer it has been very oppressive and dank, producing a sensation of oppression to the whole system almost insupportable.

After our Centennial celebration, July 8, 1879, several gentlemen in the village of Fairfield, whose minds had been considering the faults of drainage of their section, and who appreciated the necessity of restoring by some means the character for health of our town, met together and resolved to form a Village Improvement Society. Under the auspices of that society the various works have been done. My own conclusions in regard to the subject were as follows:

1st. That in the mill streams the removal of the mills had taken away the flush necessary to keep them sweet, and free of mud banks. Hence the gradual filling of the mill-ponds, and the formation of mud banks in all parts of the stream.

2d. That in Pine Creek the neglect of the mouth, allowing it to close, and the neglect in not regularly cleaning the ditches, and the formation of obstructions to the outlet of the tide water, have caused an unhealthy accumulation of vegetable matter throughout the whole meadow surface.

3d. That depression of the surface formerly drained has been allowed by neglect to become filled up and stagnant.

4th. That other depressions have been caused by the running of the railroad across the foot of the hill, and by not in all instances providing proper outlets for the water.

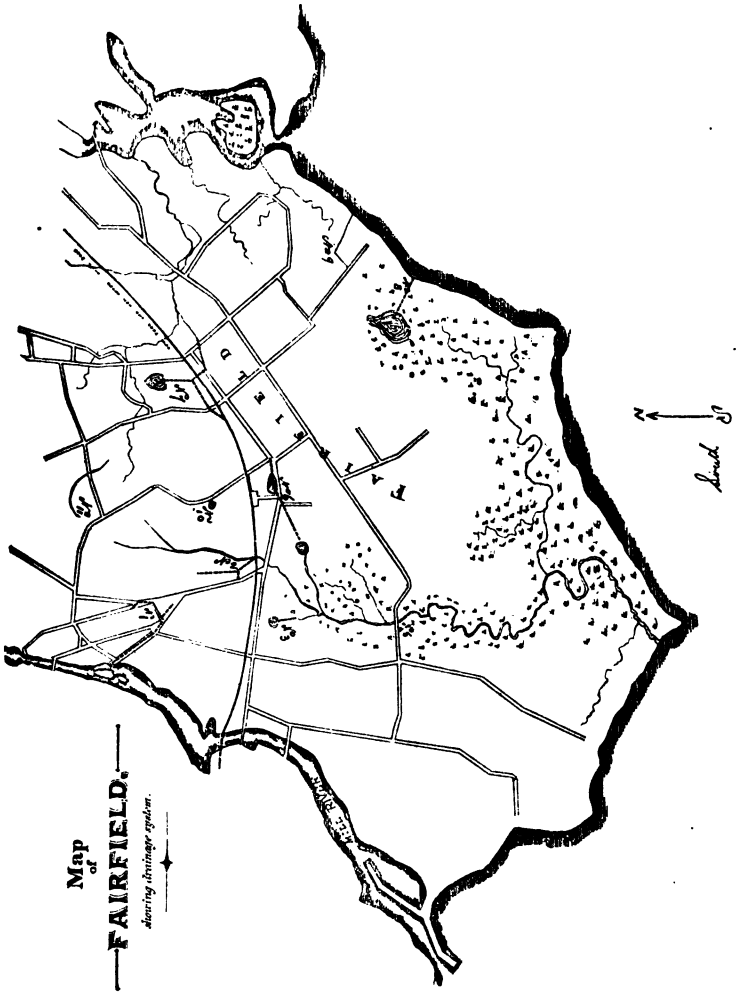
5th. That time has made many places, formerly *not unhealthy*, now positively unhealthy by the gradual hardening of the under gravel.

(I have specimens of ground taken from some of my work where water has stood for many years, which are as hard as concrete, and entirely impervious to water.)

6th. That the increased number of trees has also caused places to become unhealthy which formerly were not so.

The works undertaken and completed, and which all bear upon my theory of the remedy for our difficulties, I will enumerate by number, and mark them on the map.

No. 1. A drain of 1,800 feet, to carry the water as it falls and runs from the neighboring hills, from the flat and depressed surfaces of Mill Plain to the river, instead of allowing it to stand and soak away into the ground, or to rise to such a height as to make



its way over gardens and under barns to the level of drain No. 2.

No. 2 is a short drain of 250 feet, carrying the water from the road and from a field where a pocket had formed of impervious ground, and where water lay until it evaporated.

No. 3 is a short drain of 300 feet, draining a hole (formerly, I am almost certain drained, although we found no evidence of it,) from which the surrounding inhabitants say a cloud arises so thick that it can almost be cut with a knife, and so offensive as to compel the closing of doors and windows.

No. 5 is the rebuilding of a bridge, and the lowering of its bed two feet and a half, so that the water flows out as low as the tide will permit it. This water way had filled up two feet and over, thus preventing the flow from all the ditches above to that extent. This creek is the upper part of Pine Creek, and receives into it the water from the hills back of Mill Plain, through the brook into which No. 2 drain empties, also the water from No. 6 drain.

No. 6 drains Hyde's Pond, and takes off all the water from a large section formerly under water in heavy rains and spring time. It is 1,500 feet long, and of 15 x 20 pipe.

No. 7 is a drain of some 1,800 feet, draining a bad hole (which was formerly drained, but entirely filled up,) and a large section of the back part of the village of Fairfield, next to the hills. This was a most important work.

No. 8 is a drain from the section of meadows lying between the center of the village of Fairfield and the Sound. In years gone by there was a creek putting up into this section of the town, and into it drained that part of the village around the churches and Court House. Time filled up the creek, and the drainage water made a pond called Reed's Pond. This is now successfully drained, and the adjoining land owners can continue the work of draining their own land.

No. 9 is a successful drain on a novel plan. The water is taken from the Meadows into a reservoir or catch-basin on the crest of the beach, and makes its way out by the natural passage through the sand. A tide trap prevents a flow of salt water backwards.

No. 10 is a drain from a depression in the hills in which the water had become stagnant.

No. 11 a long extent of drain pipe (some 1,800 feet), which relieves a hill section of surface and standing water.

You will thus see that we have done a large amount of work since September 1st. I am in hopes that more work will be undertaken next year, after the public mind becomes more aroused, and more attention is given to the study of the subject.

SICKNESS FROM IMPURE ICE.

The following data are very kindly furnished by Dr. Orlando Brown of Washington, Litchfield Co., under whose care the greater number of these cases were. The subject is a very important one, and all clear instances should be recorded, to prevent similar occurrences.

The town of Washington possesses the usual topographical features peculiar to Litchfield County, with perhaps less swamp land and stagnant water than the towns in the immediate vicinity. Thus far it has enjoyed complete immunity from malarial diseases, which is indeed the case with all but one or two towns in the county. There has been no epidemic form of disease of any kind for several years past.

The local conditions of the case are as follows:

The house is situated in a little valley among the highest hills of the region. The occupants were farming people of intelligence, the head of the family quite prominent in the public affairs of the town.

The family consisted of the man and his wife, aged respectively 51 and 46, the wife's mother, aged 69, two children—a boy of 12 and a girl of 14 years—a laborer employed on the farm, and a woman employed to do general housework. There had been no sickness in the family previous to August 6, 1879. The boy was then attacked apparently with a mild form of dysentery. There had been during the summer in different parts of the town here and there a few cases of dysentery, otherwise no unusual prevalence of intestinal diseases. The dejections were frequent of bloody mucous, without fæcal matter, tenesmus was marked, temperature never rose above 100, pulse about 104. August 7th the father became similarly affected, the dejections presenting the general appearance of beef brine. August 12th the daughter was attacked, being seized with a chill followed by a temperature of 105°, pulse 130–140, nausea and vomiting. August 12th the

grandmother was also affected, the onset similar to that of the girl.

Collapse came on as suddenly and as markedly as in Asiatic cholera. The girl died on the fifth day after seizure, the grandmother on the seventh, the boy on the ninth. The father, after a slow and tedious convalescence, recovered.

The mother and house servant had persistent diarrhœa, controlled with difficulty, but no dysentery. The farm laborer was early frightened, and left the town. No report of his illness was ever received.

The man that took his place went home at the end of a week, sick with dysentery, but recovered in about ten days. No cases occurred in his family or neighbors.

A sister of the wife that came to assist in the care of the sick was seized with dysentery, but recovered after six weeks' severe illness. Her children were ordered removed, but the two youngest, that were constantly with their mother during the day before removal, were attacked on the same day with a mild form of dysentery.

The cause was evidently local, the type of the disease once established mildly contagious.

The following facts as to the cause are obtained from the report of Dr. Raymond of Brooklyn, N. Y.:

Examination of the spring used to obtain drinking water excluded that as a possible source of the disease. The surroundings of the spring were unquestionably good, and analysis of the water as received in the house showed it to be of exceptional purity. The window curtain was examined for arsenic, but no trace of mineral coloring matter found.

The cellar was very damp, and the soil beneath and immediately adjoining the house damp from the free water supply brought into the house from the spring—five pints per minute. In case of heavy rains, water runs into the cellar through the rear wall. How much this water is contaminated from the privy vault is not easily estimated. The vault had not been emptied for twelve years, and was far from being full, hence there must have been considerable soil saturation, as the privy was constantly used.

The stream from which the ice suspected was gathered runs through a field along side the road. This field has for fifteen years been used as a running place for pigs, and swine were wallowing in the stream at the time it was examined.

The ice water on analysis showed:

Free ammonia, parts per million,	.08
Albuminoid ammonia, parts per million,	.09

The water was of a greenish color, with light colored organic particles in suspension. The stream also apparently receives drainage from house waste, and possibly sewage from the privy-vault before mentioned. The analysis and general character of the ice water show sufficient cause for the production of the symptoms described. The ice water at Rye Beach contained considerably less ammonia.

Albuminoid ammonia is a reliable indication of contamination when excessive. When accompanied with but little free ammonia, and no evidence of chlorine, its presence indicates vegetable decay, the products of which contaminate the water. When the albuminoid ammonia amounts to .05 parts per million, the quantity of free ammonia that accompanies it must be considered in estimating the amount of contamination.* A large percentage of albuminoid ammonia may exist, .10 per million even, if there be no free ammonia present. The presence of the chlorides indicates contamination from animal decay, when present with the forms of ammonia. Taken together, the large percentage of both free and albuminoid ammonia in the ice water proves the excessive contamination of the water from which the ice was collected.

* Wanklyn water analysis.

SANITARY

AND

UNSANITARY CONDITIONS

OF THE

SOIL.

BY

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SANITARY AND UNSANITARY

CONDITIONS OF THE SOIL.

That "health is wealth," has become an accepted axiom: and hence the things which make for the protection and preservation of health are by the intelligent and considerate man put on a level in his regard with whatever helps him in the pursuit and possession of wealth. It is proposed in the following brief paper to consider how the health of people may be influenced by the conditions of the soil upon which they live and which immediately surrounds their dwelling-places.

The practical importance of fully appreciating the extent to which various conditions of the soil may influence the physical well-being of persons living over it, is becoming more and more recognized.

It has been observed almost from time beyond compute, that the health of men is influenced by those varying conditions which, in general terms, are called the influences of climate. But the careful study of the soil in its varying conditions, and of the pollution to which it is liable, as they are related to human health, has only in comparatively recent times received the systematic investigation to which its vast importance entitles it.

RELATION OF THE SOIL TO THE AIR AND TO WATER.

The popular mind has been content in the belief that some occult peculiarities of the *air* of different regions repair or impair, as the case may be, the health of those who breathe it. And they speak in a vague way of the air of this country or that as being *bracing* or *debilitating*. Pure atmospheric air is a fluid of a definite chemical constitution, varying chiefly in the amount of aqueous vapor it may contain and in its temperature.

Any peculiar influence which it may exert upon the health of men must therefore be attributed to the presence in it of some elements not native to its constitution. Whence does it acquire

these foreign elements? In any given locality it is possible that they may be brought from long distances, as they are transported by the winds; but the ultimate source or origin of them, it is reasonable to believe, must be found largely, if not wholly, in the earth at or near its surface.

It has been long recognized that the air of certain places is poisoned with an effluvia from the ground called *malaria*, but it has not been so generally understood that other deleterious agencies may have a like telluric origin.

It will be interesting, therefore, to inquire what relations the soil holds to the air; and also, because all the water consumed by man first descends from the upper air, and before it is used flows upon the surface of the ground or is filtered through it, the inquiry is scarcely less interesting respecting the relations of the soil to water.

The late Dr. George Derby said, "The well are made sick, and the sick are made worse, for the simple lack of God's pure air and pure water." This sentiment was not original with Dr. Derby, nor is the statement a novel one. More than four centuries before the Christian era the cardinal formula for health was announced by Hippocrates in these words: "Pure air, pure water, and a pure soil," and to-day we cannot improve it. Aye, even three thousand years ago the dangers of a polluted soil were fully recognized in the sanitary laws of Moses, from which it would appear that such abominations as our modern privy-vaults and cesspools were not tolerated in the camps of Israel. For we find recorded in the sanitary code to which they were subject in their journey through the wilderness, the following law:

"Thou shalt have a place also *without* the camp, whither thou shalt go forth *abroad;* and thou shalt have a paddle upon thy weapon; and it shall be when thou wilt ease thyself *abroad*, thou shalt dig therewith, and shalt turn back and cover that which cometh from thee."—Deut. xxiii, 12, 13.

It is proposed in what follows to set forth the danger of ignoring the qualities and conditions of the ground at and near its surface; and also to show how, by our own practices, we contribute largely to its defilement and interfere with or wholly prevent the processes which Nature, in her infallible wisdom, provides for its purification.

THE ACTIVITIES OF NATURE IN THE SURFACE GROUND.

The popular mind is wont to regard the poetic allusions to the absolute rest and silence of the grave as equally descriptive of everything beneath the sod.

A little reflection and the application of our common knowledge of facts will show us that a series of active processes are going on in the subsoil which, if we have not before observed them, will excite our astonishment. Instead of passive inaction, we find that Dame Nature is no less busy in her activities beneath the surface of the ground than she is above it.

If one will fill a pail with soil from the dryest part of the garden, he will find that when full of earth he can still pour into it a considerable quantity of water without causing it to overflow. In this case the water occupies the interstices between the particles of earth. One cannot pack the earth so closely but that such spaces will exist, and when they are not filled with water then the air will fill them. Again, it is well known that some animals, buried alive in the ground, continue to live for days, breathing only the air they can inhale from the ground itself. Even stones and rock contain air, and whether it be air or water in the ground, they are never stagnant, but always moving in currents up and down or to and fro, working their splendid chemistry in God's great laboratory.

They are always active, forming new combinations with whatever they may meet or dissolving old ones; oxidizing the products of decay and rendering them harmless, and generating vast volumes of carbonic acid for new vegetable life. So accurate, too, are the adjustments of Nature to her purposes and results that both animal and vegetable existence is preserved and maintained.

Notwithstanding that each day all the people in the world might be asphyxiated by the carbonic acid made in the soil, or poisoned by the noxious gases of decay, yet we are preserved from either calamity—on the one hand by the appropriation of the carbonic acid to the processes of vegetation, and on the other by the oxydizing action of the all penetrating atmosphere.

If now we expose the pail of earth and water for a few days to the rays of the sun, we shall find that the water has disappeared, and the air has again entered to fill the space it occupied. In this fact we have an illustration of another powerful element intimately concerned in the activities going on underground, namely, heat. Air, water, and heat are the chief factors of motion in the never-

ceasing unrest in the soil beneath our feet. Their influences upon each other are incessant and perpetual. The penetrating rays of the sun evaporate the water and give place to air, to a depth greater or less according to the degree of heat and its continuance. Thus ever changing relations of temperature, moisture, and ventilation are produced in the soil, due chiefly to the alternations of day and night and of the seasons, and to the porosity of the soil. There are therefore constant currents of radiant heat passing and repassing to a very considerable depth in the ground.

As a motive power, heat is unrivalled; even slight changes of temperature produce action. It is ever working; the elements obey its bidding in new combinations and decompositions and ferments.

THE GROUND WATER.

A scarcely less potent factor of action is found in the always varying presence of water near the surface. This, too, is in motion, not rapid, but yet always moving. The source of supply is the rainfall. From the clouds it descends upon the earth. The lesser portion—storm-water—flows upon the surface into streams, and thence onward to the ocean. A larger part is received into the ground. It is this we are interested to watch. It sinks down through the porous layers of loam, sand, and gravel until it reaches a stratum of rock or clay which is impervious. But as the surface of this water-proof stratum is not level, but is as undulating as the ground that covers it, reason and fact agree in finding the accumulated water below the point of saturation slowly moving onward, but in a lateral direction now, through the porous superstrata to some lower outlet. It does not stagnate. It is ever in motion, seeking its level, running in slow currents underground, usually towards some river or the ocean, in obedience to the same laws that control its less resisted progress on the surface.

What we call dry ground has much moisture in it, varying in quantity, with a varying amount of air, in all degrees to the point of water saturation. Below this point the ground is filled with water. If a pit is sunk below it, water fills the cavity and constitutes the familiar "well" in common use. The well proves also the fact, already mentioned, that the ground water is in motion; for no one believes that good well-water is stagnant water. It is also within the experience of all men that the water in wells rises and falls with the changing seasons; and many surface springs flow full or fail under like conditions. Thus we have incessant motion in the

soil water, following laterally the incline of the water-tight layer of clay or rock upon which it lies, rising and falling with the supply from the rain clouds, and always ascending through the ground towards the surface by the forces of capillary attraction to moisten the soil and supply the wants of vegetation.

THE GROUND AIR.

Above the level of the soil water the atmosphere enters, and plays its part in the unseen and noisless activities of the underground. This, too, is in motion; and constant currents of air permeate the soils passing through it in various directions, going in and out of it, and so by frequent interchanging with the upper air contribute the powerful influence of direct ventilation to sweeten and purify the surface soil.

The causes which produce motion in the ground air are diversities of temperature at different depths, the force of the wind, barometric pressure, displacement by rainfall and movement of ground water, and, finally the law of diffusion which governs the action of all gases. The force with which the wind presses into the ground is apt to be under-estimated. A brief wind equals a pressure of over a pound to the square foot of surface, and a hurricane fifty pounds, and this upon a level and unobstructed surface; but if it blows against a hillside, or its current, turned against the ground by some resisting obstacle, the pressure is vastly increased.

How much then do we mistake the true character of the ground we live upon when we regard it only as an inert mass of loam, gravel, and stone. Heat, water, and air are always inseparable elements in its constitution. The conditions under which their ceaseless circulation goes on in the subsoil are not one whit less potent for good or evil to man than are the influences which affect his health above ground. The surface of the earth is the natural and necessary receptacle of all decaying and dead matter, of all worn-out material, of all forms of refuse dirt, and filth, of whatever kind or nature. If they remained where deposited in inert masses, unchanged and insusceptible of change, the accumulations would soon exceed all computation, and the surface of the earth would rapidly become occupied with them and be rendered uninhabitable. But Nature defeats this result, and secures the safety and maintainance of animal and vegetable life, and perpetuates the habitation of the earth, through the instrumentality of those energetic actions in the soil which are above described. Heat and moisture promote the speedy

decomposition of all organic matters, and the elements of which they are composed are variously appropriated. The gases of decay by the universal law of diffusion are evaporated and dissipated in the vast ocean of the outer air. Other elements are oxidized by the oxygen of the ground air, and still others are revivified through the mysterious processes of vegetation. Thus all, by the harmonious action of these various agencies are disposed of speedily, safely, and without waste in accordance with the economy of Nature. We observe then that the rain, the sunshine, the winds, and an active vegetation are the potent and all sufficient agencies by which the ground is purified and made a wholesome place for man to live upon.

MAN'S INTERFERENCE WITH THE INTERESTS OF NATURE.

This view of the subject leads directly to the practical query: Do our houses and homes harmonize or conflict with these natural hygienic processes? How does the ground upon which a city is built stand related to these grand operations of Nature?

In the first place, vegetation is destroyed and its potent energies in consuming the products of decay are lost. The surface of the ground is so covered that the influence of the sun-light and sun-heat is either altogether lost or greatly modified, and for the same reason the rain-fall reaches the surface in streams as it is shed from roofs and pavements, and therefore cannot difuse itself through it uniformly, and thus the condition of moisture is greatly changed, and the underground water courses are altered. Very often the result of such artificial inventions as the cesspool, the cistern, the privy-vault, and the cellar is to unite them together into a sort of system of underground drainage. Again, the soil is so completely covered by structures impervious to the air that the atmosphere is excluded, the winds are diverted in their course and the ground does not feel their pressure, and thus the purifying influence of underground ventilation is greatly interfered with or wholly prevented. The constant interchange of the upper and the ground air is impossible, and the latter becomes stagnant and corrupt. Such underground ventilation as is possible under such conditions is largely out of proportion into and through the cellars of dwelling houses. The stagnant air, contaminated with the gases of decay from the filth with which the ground is over-charged, is sucked through the cellars of houses as the most accessible permeable places of escape, and house poisoning is the inevitable result. That such is the fact

ordinarily, whenever the ground surface is rendered air-tight from any cause, has been often proved. It happened within the observation of the writer, a few years ago, that a main gas-pipe laid through the middle of a city street sprang a leak in a winter night, and the discharge of gas was so great that, not finding escape through the frozen ground, it permeated latterly through the soil under the air-tight frozen surface forty or fifty feet to the cellars of the houses nearest, and escaping there, so poisoned the air that the sleeping inmates were carried out of their houses in the morning by their neighbors, some of them in an unconscious state. Three houses were thus poisoned by the gas, and neither of them had ever had any pipe connections with the main pipe in the street. If the leak had occurred in the summer, when the ground was not frozen, it would have occasioned little or no annoyance to the families in those houses, because the escaping gas would have found its way directly to the upper air. But the incident illustrates satisfactorily the evils of sealing the ground about our homes with an air-tight covering, and leaving our cellar bottoms pervious to the passage of all the noxious gases generated in the filth-laden soil. And yet it is within the experience of most observing people to have seen a cesspool and a privy-vault sunk within a few feet of the house-cellar, and the ground all about them, and all the intervening space up to the house foundation, covered with an impenetrable coating of asphalt pavement. Where else can go the noxious gases that will invariably be generated in those filth-pits than directly to that graveled-bottom cellar? And what else can happen to the residents of that house than sickness and the sympathy of their neighbors for the mysterious dispensations of Providence? And so it is plain that by the erection of human habitations, whether collected in a city or isolated in the country, the natural relations of the surface-soil are necessarily altered.

The hygienic processes which Nature institutes for soil purification man interferes with or prevents. Nor only so, but heedless of the dangers of such interference, he aggravates and multiplies them by constantly storing about his home, in as close proximity to it as possible, the increasing accumulations of filth which the necessities of domestic life produce.

HOUSE-POISONING AND WELL-POISONING.

When a man provides a home for himself and his family, there are four things which he immediately does to the soil about it as

necessary, he thinks, to the appointments of his home. First he digs a cellar, over which he builds his house; next, he digs a well for the water; then he digs another excavation, not so deep as the well, into which he pours all the liquid filth of housekeeping; and finally he digs still another pit, and into this is daily dropped for storage the excremental discharges of all his family. These excavations are for convenience placed in close proximity to each other. Commonly a few feet, say fifteen to fifty, will measure their separation. Indeed, instances are frequent where one or more of these are included within another. I have known a house in the city of New Haven, occupied by two families, in which these arrangements were so *very convenient* that two cesspools and the well were all in the cellar, while two privy-vaults were only just outside the cellar walls, and they were all serving their special purposes daily, for both families.

This instance is not selected from the habitations of the ignorant and poverty-stricken. But as indicative of the intelligence and social position of the occupants of the house, they paid an annual rent of $1,000 for a dwelling only, which price it readily commanded because of its conveniences and its respectable location.

We would naturally ask how the underground currents of air and water may affect the water in the well and the air in a house so situated. What pleasant virtues does the well derive from the mingled fluids of those cesspools and privy-vaults between which it is so conveniently located? What invigorating and health-giving properties are imparted to the atmosphere by the fragrant exhalations which the warmth of the cellar extracts from its saturated bottom? Surely such questions require no formal answer. In illustration, however, of what happens under like conditions, I quote an abstract from a letter recently received from a physician in a neighboring town.

"I have a family under my care in which for some years past there has been a good deal of sickness. Of late it has in part assumed something of a malarial character—there has been some sore throat of a catarrhal nature, no diphtheria, but it has mostly assumed an indefinite type, slight fever, furred tongue, loss of appetite, and more or less prostration. The family occupy a fine place nicely located—surroundings neat, and at first sight sanitary conditions seemed to be all that could be wished. On examination, I found back of the house a cesspool, well, and privy-vaults.

The latter were both under a roof connected with the house. The privy-vault is nineteen feet from the well, and ten feet from the cellar. The cesspool is twenty-five feet from the well, and but eight feet from the cellar. It is tightly covered at the top, and has no ventilating pipe except that connecting it with the sink in the kitchen, in which there is no trap." He further states that *no unpleasant smell* has been observed in the house and they think the *water is excellent*, and concludes with asking naively if I "*should suspect any trouble from either of these sources.*" It seems impossible to doubt that house-poisoning must occur from such conditions without the demonstrative proof that the inmates of the house were so poisoned.

Another source of poisoning from unsanitary conditions of the soil is through the drinking of well-water. The purity of our wells from the filth dissolved in the rain water, as it passes through the ground to the wells, must depend wholly upon the filtering and purifying process of the soil itself. Fresh earth is an unrivalled filter. But this function depends greatly upon the freedom with which the air circulates within it, the purification being nearly in all cases a process of oxidation. A few feet of fresh earth under natural relations will remove all the color and odor from the foulest slops in the kitchen yard. And if time enough is allowed, and space enough through earth provided, it will effectually "transform the foulest and most noisome sewage-water into the crystal springs which poets celebrate in verse, and which even religion takes as the type of its best gifts to man." But there are limits to its purifying powers. It is possible, too, to destroy its qualities as a filter. What filtering power can the ground preserve in the back yards about our wells if we keep it saturated year after year with the sewage from our kitchens, and the excrement from our persons? Filled with the nastiest of filth, it is impossible that it should make the water that passes through it pure. It may indeed render it free from color and smell, but do not forget that *clear* water is not necessarily *pure* water. A city well may give no warning to any sense; its waters are refreshingly cool, they are clear and sparkling, free from all solid particles, without odor, and yet they may be laden with the germs of the deadliest pestilence. Such cases have happened a thousand times. In the cholera epidemic in London in 1866, one grain of sewage defilement to the gallon of water supply was found to be directly connected with over 70 per cent. of the whole mortality.

HOW WELLS ARE DRAINS.

Practical men know that land drainage is effected by cutting a ditch a few feet deep across the field to be drained, and that even in very compact soils a cut five feet deep will take the water from the adjacent ground to a distance of twenty-five feet on either side. So too, with a pit dug in the ground, the water from the surrounding ground would gravitate into it from as great a distance by the same law, although the operations of nature are not changed by the name we give to such a pit. Therefore, if we call it a well, and use it for a well, it still performs the functions of a drain all the same as if it was called a drain, and dug for a drain. The fact therefore cannot be disputed that *every well is a practical drain* in good working order, and takes the water of the surrounding ground from an indefinite distance in proportion to its depth, and the porosity of the soil. With this fact in mind it is not pleasant to think of the cesspools and privy-vaults within drainage distance of the wells that supply our drinking water.

WATER-TIGHT FILTH-VAULTS.

The dangers of well-poisoning and house-poisoning through the ground from these pits of pollution have so impressed the Boards of Health of some cities that they have ventured to anticipate the public intelligence on this subject, and enact laws requiring all underground reservoirs of filth to be made water-tight, and forbidding the construction of any more leaking cesspools and privy-vaults. As was expected, the enforcement of this law has met with decided opposition. It seems incredible that so many otherwise intelligent people should be so ignorant or reckless of the dangers of those soil pollutions, that they regard the law oppressive and wrong, simply because it involves some additional expense for more frequent emptying of such vaults, and removal of contents. The very objection itself is proof of the evils of loose walled vaults, and so of the need of such a law.

The objectors say in effect:—"We do not wish to have these filth-pits, at our back doors, tight—we like to have them leak; the more they leak the better. The more the filth about our houses soaks into the ground the better we like it, because then it don't cost us anything to carry it away." They do not count the cost of having typhoid fever, malaria, cholera infantum, diphtheria, etc., in their families. Yet a volume could be filled with demonstrative

proofs that these diseases and others have been engendered and propagated by exactly such soil pollutions.

WELL AND CELLAR CONNECTIONS WITH PRIVY-VAULTS AND CESSPOOLS.

Every city will afford hundreds of instances in which direct communication exists between these vile vaults and the well and cellar, to defile the water and pollute the air of the house. In the construction of one of the railroads running into New Haven a grade cut was made through a hill, and in one bank of the cut, when the writer last visited the spot, there might be seen several little streams of dirty water oozing through the ground from a cesspool more than fifty feet distance.

Where water goes one day it is more likely to go the next, and continual going in one direction soon establishes a channel of direct communication, so that in time all the liquids flow through it. This is frequently the fact when an outlet lower than the bottom of the cesspool exists, whether it be a railroad cut, or a well, or a house cellar.

Several years' experience as the health officer of New Haven has brought to the writer's notice many instances where such relations existed between the cesspool and the well. These were most conspicuous after the weekly washing day, when the water drawn from the wells, by its smell and appearance (I did not taste it) gave unequivocal evidence of being largely charged with the products of wash tubs after useful service in purifying the family linen.

THE SUBSOIL AS A FILTER.

It is quite certain we are disposed to put too much confidence in the purifying powers of the soil. There is not only a limit to its powers, but there are also conditions essential to its action as a purifier. The water of slops and sewage and human excrement buried near our wells will not be made pure and fit for drinking by filtering through a few feet of earth except under most favorable conditions. What are the conditions favorable to its purification? The great and most essential requisite is a free ventilation of the ground; instead of shuting out the air by an impenetrable covering, the utmost freedom of air circulation should be afforded. Because, as the chemists tell us, the air acts through its oxygen upon the impurities which the soil strains from the dirty water, and oxidizes or burns them. Again, it is obvious that to get the best

results as a purifier, the ground charged with impure liquids should have an interval of time between its wettings long enough to become so dry that the atmosphere may follow the receding liquids and destroy what the filter has strained from them. But if no interval for drying is permitted, if the ground is kept constantly wet to saturation, then it is quite certain the air cannot enter into it; the impurities are not oxidized but accumulate; the ground no longer acts as a purifier, but on the other hand the increasing quantities of filth incorporated with it takes on its own chemical action, and becomes prolific in the production of mephitic and poisonous gases, which ascend to upper air to work their unwholesome action upon all who breathe them.

It is easy to understand which of these conditions is maintained by these filth pits. The exudation from their bottom and sides is nearly constant; the intervals of supply are so regular and frequent that no opportunity occurs for the air to restore the filtering power of the soil. Thus the fouling process goes on, and after some weeks or months there is no clean earth between the well and these pestilential sources of supply to it, and every drop of water from them carries with it its atom of filth.

The most elegant and tasteful home that wealth and art could provide would be defective in the most essential quality if it was not also a *sanitarium*.

It is simply astonishing to observe what trouble and expense people will incur to provide themselves with what they call the comforts of a home, while at the same time they are so indifferent to unsanitary conditions, which will make their home most uncomfortable through the sickness and death which they cause.

If we could for a time enjoy the powers of vision which the clairvoyant professes to have, and could peer down into the subsoil about some of our homes, a revelation would be made which now we little realize. Unsuspected infiltrations of filth, obstructed drains, stagnant water, and stagnant air, subterranean channels radiating from wells and cellars to the various filth-pits by which they are surrounded, would meet our astonished eyes, while many odors of a fragrance not chosen by the perfumer for a toilet use would assault our disgusted noses, and so through our offended senses we might be convicted of living in more dangerous familiarity with filth than the brutes in their natural state.

This state of subsoil nastiness is almost wholly due to the leakings from the cesspools and privy-vaults with which the ground

in every old settled town is honey-combed. It is quite impossible to conceive any more scandalous imputation upon our domestic life than that we are frequent victims of infectious diseases, which we incur through the action of our own excrement, which our extreme filthiness permits to mingle with our air, and food, and drink. The dangers which attend the toleration of these subterranean reservoirs of foulness cannot be computed. Dr. John Simon, the great English sanitarian, writing on this subject, says, "The pathological studies of late years, including eminently certain very instructive researches which Professor Sanderson has conducted, have clearly shown that in the 'common' septic ferment, or in some ferment or ferments not hitherto to be separated from it, there reside powers of disease production as positive as those which reside in the varioloses and syphilitic contagia."

There is but little doubt in the minds of those who best understand the subject that if it were practicable to effect the prompt and complete removal of all excremental matters and all other organic wastes to such distance that we should have no further contact with them, there would simultaneously disappear from our midst certain of our most grave and fatal diseases, especially those of the intestines. We might also reasonably expect relief from malarial diseases which are, with remarkable unanimity of opinion, attributed to emanations from the ground. Unsanitary conditions of the soil are, however, not always due to human agencies. As the subject is better understood by systematic investigation, the fact is developed that in addition to those diseases which find their origin in soils polluted by man, there are also many other diseases the sources of which are found in various natural conditions of the earth's form and substance. The relation of the geology and the topography of places to the health of residents is a large study, and one which demands an extended and patient investigation. Our present knowledge of it is as yet only too general and indefinable to be thoroughly practical, but it is a field of inquiry which promises great results from a broad and intelligent exploration.

For more than a century the prevalence of malarial diseases has been associated in our experience with certain topographical conditions, but almost the sum of positive knowledge of their relations was comprised in the statement that some swamps cause malaria. More recent observations have shown that topography alone is not adequate to explain the etiology of the malarial types of disease:

that they are found to occur under the most varied conformation and character of surface, and that the deeper geological construction and direction of the strata of the earth's surface are intimately associated with their production. As a result of studying the relations of the soil to human health, one conclusion has been reached which may be considered as established, which is, that an excess of moisture in the ground is always unsanitary. There are abundant facts in proof, and the inquiries of Dr. Henry I. Bowditch some fifteen years ago, respecting the connection of wet soils with the prevalence of consumption in New England, have dispelled all doubt about it.

In the foregoing, the writer has had in mind chiefly to present what agencies Nature employs in the ordinary condition of the soil, to dispose safely of the decomposing organic matters, which everywhere may fall upon its surface, and which would otherwise become dangerous to health. In addition also to show to what extent the prevailing habits of domestic life interfere with the intentions of Nature, by preventing those salutary operations which keep the soil pure and wholesome; and how in the most reckless and criminal way we directly render the soil unsanitary and dangerous to live upon.

It is another branch of the subject to study the various conditions of natural soils, in their sanitary bearings, and one which involves a much wider field of inquiry. Its elucidation would call for detailed topographical and geological surveys of large areas, to be followed by equally careful sanitary surveys of the same areas. By the collective classification and comparison of the facts thus obtained, data would be furnished from which there is promise of deducing with reasonable certainty some of the principal causes of the most fatal prevailing diseases; and in that event of pointing out the practical remedies which will materially reduce the death-rate in communities.

There are quite satisfactory grounds for believing that the united results of topographical, geological, and sanitary surveys of extensive areas, carried out by expert and trained observers, acting in concert and by authority, would be the production of a body of facts from which might be determined most important laws of health. This is too great an undertaking for private enterprise, and can only be successfully pursued by governmental authority and aid.

SCHOOL HYGIENE.

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SCHOOL HYGIENE.

The value of any educational process or system is not tested by the proficiency acquired in its methods, nor by the degree of perfection reached in the prescribed course. Nor is it enough to prove the system a success that the utmost possible amount of knowledge and mental discipline have been bestowed within the limited time, unless the training has been in the line of developing a healthy maturity. The ultimate object sought is fitness for the labor of life, a symmetrical development of all the faculties, and such discipline as will enable one readily to acquire knowledge and skillfully to use it; the ability to concentrate at once and at will all one's energies upon new facts, new ideas, and new situations. The age in which we live is fruitful in changes, and demands the power of ready adaptability to make the best of unfavorable circumstances and conditions and turn them to our advantage. Skill, effectiveness, and endurance should be the resultants,—a body trained to execute the mandates of the mind, as well as a mind trained to know and use its powers. As the body is the instrument or agent through which the mind must work, any system or process that weakens or enfeebles the body, inducing an inaptitude for manual labor, premature invalidism, lessened powers of resistance to depressing influences, and an imperfect organization, is in so far a failure. It is a grave and serious concern to the State that the large proportion of its population, in Connecticut about one-third, engaged in going to school should during the ten or twelve years thus employed, be surrounded by no avoidable unsanitary conditions and subjected to no influences that tend to induce imperfect physical or mental organization, to lower vitality, or to lay the foundation for disabilities in after life that shorten the limits of effective life work. This period included in school-life is the most impressionable, is indeed the formative period, and any depressing influences are much more effective here than during any other period. "The young lives are finer tests of foul air than the older and perhaps

acclimatized population." The capacity for resistance is in inverse ratio to the rapidity of growth.

A very much larger proportion of invalidism, ill health, disease, and death are due to bad hygienic influences than is commonly supposed. Damp houses, undrained premises, unventilated rooms, impure water, badly placed outbuildings, and carelessness in the disposition of the garbage and filth necessarily resulting from domestic life, have a closer and more intimate relation to ill health, disease, and death than is generally recognized. When these truths are realized and acted upon, the results soon make apparent the reality and value of sanitary laws. Although mankind are naturally careless, negligent, and inclined to procrastinate, still we find hygienic improvement to advance pretty regularly with the advance of knowledge and intelligence.

The State, in a certain sense, makes the children its wards, as education is rendered compulsory; hence not only should all preventable unsanitary conditions be removed, using the term in its widest sense to include both mental and physical relations, but should train the pupils in right methods of guarding life and health by obedience to sanitary laws, by which much inherited invalidism and evil tendencies may be obviated. The most decided results could be achieved by furnishing the essential requisites for a vigorous, healthy physical development and maturity, and conforming educational methods to physiological and hygienic laws. A vast amount of sanitary reform would be the necessary resultant of such a course. So far from this so desirable a state of affairs existing, it is unfortunately but too obvious that the reverse is the truer picture, and that the school-rooms in their present condition, and the prevalent systems of education, to say the least, imperil and endanger health.

The question then arises: can a symmetrical mental development and discipline be secured without infringing upon the conditions essential to a harmonious physical development and maturity? This involves the idea that brain-work is necessarily exhausting and depressing as compared with other forms of labor; the contrary, however, is the truth; exercise of the mind, if rightly directed, invigorates the body and conduces to health and long life by increasing the volume and vigor of the brain, the storehouse of energy for the whole system. Such exercise, however, must be suited to the age, development of the brain, and consequent mental receptivity of the child, must be regular, not unduly

forced, and must be kept free from worry and anxiety. In the young especially the evils of worry and anxiety are noticeable. By emulation, competitive study, or penalties, the active, impressible brain of the child is harassed and work becomes depressing. The studious, faithful, conscientious child, who needs restraint rather than the spur, is the one injured; the careless, unimpressible child, of exuberant animal life, who shakes off all care as soon as he leaves the school-room (if, indeed, there were any to shake off), for whose behalf these methods were resorted to, receives no injury, as he takes no heed. The results of the forcing system are a mental discipline that has its fruition in what should be its springtime, and a mental development that has reached its acme ere the educational process is completed. Such brains may be quick but are not productive, and are, as Kingsley says, "apt to mistake capacity for talk for capacity for action, excitement for earnestness, vehemence for force, and too often cruelty for justice." By physical culture is not meant special training in any one direction, which is indeed to be deprecated, as when a muscular oarsman finds he has developed a diseased heart, but that due attention be paid to that exercise of the different bodily structures essential to growth and development; that over-tension and cramping restraint be avoided, and the younger the children the more frequent the intermissions and varied the mental exercises.

Every occupation has its peculiar dangers and liabilities to ill, and the occupation of going to school is no exception. To a certain extent it violates the essential conditions of healthy child-life, which demand ceaseless change of position or restless activity, constant change of attention, and frequent periods of repose and sleep in case of the very young. This leads naturally to the first violation of physiological law in educational methods, which relates to the time for mental effort, the general law being that study and all mental work shall be adapted to the age, and not be in advance of development. The time selected by the physiologist and hygienist for the commencement of systematic education is when the child has reached seven years. This is not arbitrarily selected, but rests upon physiological laws that cannot be violated with impunity.

The source of mental energy is in the gray matter of the brain, and whatever may be the theory of mental action, the brain furnishes the conditions necessary for the manifestation of mind, and that through the gray matter. Now up to the seventh year

the brain, while growing at a more rapid rate than at any other period of life, is comparatively deficient in gray matter, but the white matter related to the perceptive faculties predominates. Up to this time, therefore, the perceptive faculties are sufficient to keep the mind fully occupied in acquiring the knowledge to be gained by observation. While the gray matter of the brain is but partially developed, mental effort involving the reflective faculties and abstract ideas should not be allowed. "All formal labor of the mind required before the seventh year is in opposition to the laws of nature, and will prove injurious to the organization." The superintendent of the schools in St. Louis states that children that enter the schools at eight years make nearly double the progress that those make that enter at five, and similar testimony might be cited indefinitely.

There are many physiological reasons for selecting this age for the commencement of regular education, the lower vertebræ of the spine, upon which the upper portion of the body rests when in a sitting position, are then ossified and not before. The proportion between the upper and lower portions and the trunk is reached during this year. During the seventh year the body commences to have a uniform, steady growth; before this period different portions increase with different rates of growth.

The rapid growth of the brain implies an increased blood supply, and explains the greater nervous susceptibility of children The nervous system in childhood, besides presiding over the functions that maintain life and provide for the repair of the daily waste of tissues, as in adults, has in charge those of growth and development, *i. e.*, the production of new functions, and the mechanism for their exercise. Now if its energies be unduly taxed in mental labor, it draws upon those which should be reserved for digestion and assimilation; these processes being interrupted, the brain is no longer supplied with nutritious blood, and development is checked or perverted. The reserve force is much less in childhood, as it is required for the processes of development. The process of repair in the brain takes place only in sleep, as well as its growth, hence a greater amount of sleep is required and at more frequent periods than in the adult. If denied, nervous irritability results, followed by exhaustion or depression. This nervous irritability and its expression are too often considered as requiring and receiving punishment, as it leads undoubtedly to infractions of discipline. There is one other point in this connection: the constant

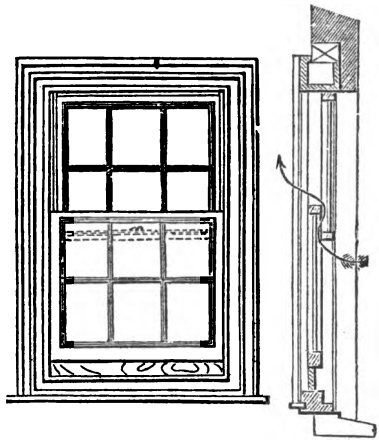
effort to accomplish a task that is beyond the mental powers weakens the brain and injures mental capacities permanently.

One of the most essential requisites, however, for a healthy and vigorous physical development is one but poorly supplied by the average school room, and that is pure air. This is essential to good mental labor, to work that shall task the powers of the brain to the utmost, and at the same time invigorate and strengthen it, and indirectly the physical frame.

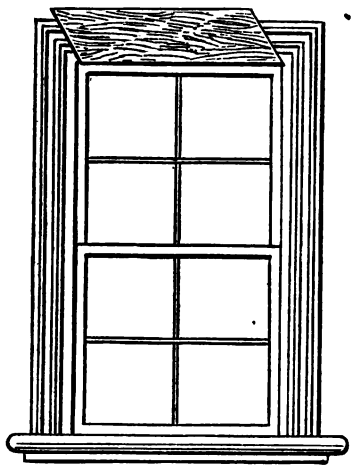
Children breathe with nearly double the rapidity of adults, and hence are more susceptible to the ill effects of impure air. It is claimed by some that small children do not require so much air space as the older, but this is erroneous, as the rapidity of breathing compensates for the smaller volume of air respired. At each breath we inhale carbonic acid, twenty-five to forty ounces, every twenty-four hours, we exhale watery vapor, and fetid organic vapors, the products of changes that have taken place in the system; these latter give the offensive smell to a close, ill-ventilated room when occupied. The air is also contaminated by exhalations from the skin, and by emanations from soiled clothing; the latter no small item in a crowded room. The dust of the school room is peculiar, the fine particles of chalk from the crayons used at the blackboards constitute a special impurity; imperfect janitorship often adds others from the accumulation of several days, around the desks.

The use of windows to ventilate the school-room during the session, is very objectionable, as the sudden exposure to a draft of cold air "slays like the stroke of a sword," while the impure air produces ill health and undermines the vital forces more slowly. The following illustrations show two methods easily available, that can be arranged at slight expense where the authorities cannot be prevailed upon to ventilate the building systematically. A strip, the length of the window-frame and width of the opening, should be placed under the lower sash. This should be as thick as the lower sash, and well fitted to its place. The lower sash is raised, this strip put in place, and the sash shut down, resting upon the strip. The air now enters between the two sashes, and is given an upward direction, thus avoiding a draft,—the direction is indicated by the arrows in the side section. The other plan is to nail or fasten securely a strip of board at a sharp angle to the top bar of the upper sash, and then lower the sash. This, of course, should be of the length of the sash, the width determined by the volume of air desired. More

air is admitted by this method, an upward direction is given to it, and direct draft avoided. By these means the air supply can be



much improved. A test for the carbonic acid, which is a fair measure for all the impurities, is easily made. The normal pro-



portion in air is eight parts in ten thousand. To test for excess, take an eight-ounce vial, fill with rain water, preferably, and empty

out the water in the room the air of which you wish to examine. As the water flows out, air passes in, and the bottle becomes filled with the air of the room. Pour into the bottle half an ounce of clear lime water, obtained easily at any druggist's; cork, and shake thoroughly. If no milkiness or turbidity results, the air does not contain more than eight parts carbonic acid in ten thousand of air. If a six-ounce bottle is used, with half an ounce of lime water, and gives turbidity, there is eleven parts carbonic acid in ten thousand of air. If a two-ounce bottle show turbidity, it would indicate over forty parts instead of eight. Thus the quality of the air can be tested. Lime water can be obtained from any druggist, or easily made. Pour cold water over unslacked lime; let it stand over night; then carefully pour off the clear water. More water can be added to the lime, as only a certain per cent. is dissolved. This is a fair test of the quantity of impurity in the air, although there are many deleterious substances that are not indicated at all by the proportion of carbonic acid. Ammonia is tested for by a paper prepared as follows: Evaporate tincture of logwood to dryness; dissolve the residue in ether; dip strips of filtering paper in this. Ammonia gives these strips a brownish tint. Sulphuretted hydrogen is best detected by strips of filtering paper, dipped in a solution of sugar of lead, and exposed, *wet*, to the air of the room. The gas turns the paper black. The test is a very delicate one; very small quantities are detected. The absence of ozone in the air indicates a large percentage of organic matter. Hozeau's test is as follows: Soak litmus paper of a neutral tint in a dilute solution of iodide of potash. The ozone sets the potash free, which turns the paper blue. A person can become habituated to the endurance of a vitiated atmosphere,—a process which, while it trains a child to live on impure blood, trains him to live a poorer and feebler life.

QUANTITY OF AIR REQUIRED.

To preserve the air in a reasonable degree of purity, from 200 to 300 cubic feet of air space and 25 sq. feet of floor space are required for each schoolar. This is based on exact mathematical calculations of the amount of air devitalized, and implies constant change by ventilation. As the smaller children breathe with greater rapidity, their requirements are about the same. In the worst examples in this State I found 4½ square feet floor space, and less than 50 cubic feet air space, and no systematic ventila-

tion. It is only in the buildings lately constructed that this standard is nearly reached, usually in the cities. The evils of impure air are too well known to require discussion; the statement is enough. In England and Wales the excess of deaths in the school stages of life amounted, upon examination, a few years since, to fifty thousand annually. These, to a greater or less extent, are chargeable to the unsanitary relations of school life.* The evil of over-crowding is a common one in all States, especially in cities.

The discussions concerning the New York City Schools furnish a striking commentary on this point. The subject is very comprehensive, and I hope to discuss it more fully later. There are, however, several points that can well be presented in a preliminary paper like this. Dyspepsia, sleeplessness, headache, nervous irritability, neuralgia, and general depression are some of the evil results of overtasking and bad ventilation.

HEATING.

Nearly as imperfect a condition often exists with reference to heating as to air supply. Sudden excesses of heat, and then exposure to direct draft from open windows, and the contamination of the air by carbonic oxide and other gases, are prevalent evils. The dryness of the air constricts the depth of inspiration, and predisposes to lung disease. Virchow attributes most of the pulmonary diseases of children to over-crowded rooms, changes of temperature in passing from hot rooms to cold stairways or the outer air, to the dust of the school-room, and the impaired respiratory movements induced by prolonged sitting.

One of the best desks I have seen is that in use in the Chauncey Hall School, Boston. The desk is at an angle of 23° for writing, and so constructed that it comes within an inch of the body. The lower section turns back with a noiseless sliding joint, making a book-rest at an angle of 45° for reading or studying. The interior of the desk is open to inspection when the lower section is folded back, affording no chance for books or slate to drop, or for untidy desks. The seats were arranged with reference to the natural curves and outlines of the body, preventing pressure on the large nerve of the limbs, which is a common fault and produces sciatica. A most excellent rule obtains here, the neglect of which has been productive of much life-long ill health: the intermediate pupils

*Chadwick on Sanitation in School Stages of Life.

are sent to the highest floors instead of the older pupils. The recommendation is most emphatically urged that this wise course be adopted in those buildings that have several pairs of stairs to climb. The pelvic derangements that are caused by this excessive stair-climbing have in many instances destroyed health for life. While the construction of lofty school buildings is to be condemned in a sanitary point of view, one great evil may be thus partially prevented.

DESKS.

The matter of seating scholars and the height, size, and adaptation of the desks to the requirements of the scholar should be considered. The following table is by Dr. Guillaume—11 Swiss inches being equal to 13 English inches.

Height of pupils.					Desk.	Seat.	Back.
feet.	inches.		feet.	inches.	inches.	inches.	inches.
3	6	to	3	9	15.8	9.5	11.9
3	9	"	4	2	17.0	10.3	12.9
4	2	"	4	5	18.1	11.2	14.0
4	5	"	4	8	19.2	12.2	15.0
4	8	"	5	1	20.4	13.1	16.1
5	1	"	5	4	21.6	14.1	17.2

EYE DISEASES.

The increase of near-sightedness is marked in America as well as in Germany and other countries. The evil is caused by a faulty management in lighting the building, faulty desks, imperfect light or too intense. The direction of the light is also of great importance; too often the pupils receive light directly in their faces, or cross lights; the black boards, too, are often imperfectly lighted. The size of the windows should bear a direct proportion to the floor-space, from one-quarter (Burnett) to one-sixth (Lincoln) of the floor-space. It is best to have the light come in from behind, next best from the left side. Light gray tints are the best for the interior walls.

CONTAGIOUS DISEASES.

A large class of diseases that are peculiar to childhood belong to the communicable or infectious class, hence the propriety of closing schools upon the appearance of anything like an epidemic. Carelessness in this respect has often been productive of the greatest evils. A still greater protection would be afforded if physicians

were obliged to report to the Health Board of the city all cases of malignant communicable disease. This is done in Brooklyn, N. Y., Boston, Mass., and some other places. Those infected might then be restrained from going to school, or to any places of public resort, and thus from becoming carriers of contagion. Epidemics of diphtheria have in many instances been spread through the medium of schools, the patient often returning before danger of communicating the disease was over.

This paper is presented to prepare the way for a more complete presentation by a brief statement of some of the more salient points. The school system of this State is so excellent that greater confidence is felt in discussing those points where, as in common with all, improvement can be made. The Kindergarten methods advocated by the State Board of Education, recognize the relations of mental culture to brain development. The Quincey methods are also based upon these principles.

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The State Board of Health does not hold itself responsible for statements and opinions in any article unless such statements have been indorsed by a special vote.

State Board of Health.

BUREAU OF VITAL STATISTICS,

STATE OF CONNECTICUT.

REGISTRATION REPORT

FOR THE

Year Ending December 31, 1878.

NEW SERIES.—NO. 1.

Printed by Order of the Legislature.

HARTFORD, CONN.:
PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.
1879.

State Board of Health

AND BUREAU OF VITAL STATISTICS.

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AND SUPERINTENDENT OF REGISTRATION OF VITAL STATISTICS.

State of Connecticut.

OFFICE OF THE
SUPERINTENDENT OF REGISTRATION OF VITAL STATISTICS,
STATE HOUSE, Dec. 1, 1879.

To his Excellency, CHARLES B. ANDREWS,
Governor of the State of Connecticut:

SIR:-In conformity with the requirements of the laws of this State, I have the honor to submit the Annual Report relating to Births, Marriages, Deaths, and Divorces occurring in Connecticut in the year 1878, from the reports returned according to law from the several towns.

The compilations from the original returns, and the laborious mathematical work involved in the construction of the tables indicating the varying influences of age, sex, season, locality, and nationality, with the requisite protracted attention to details necessarily implied in such work, have been performed in this office by the Superintendent of Registration without recourse to expenditure for clerical aid.

The assistance of Dr. C. W. Page of Hartford, especially in the second series of tables, is gratefully acknowledged.

It is hoped that the facts contained in these returns have been presented and discussed in such a way as to render the lessons they convey plainly intelligible and practically useful.

Very respectfully,

C. W. CHAMBERLAIN, M.D.,
Secretary State Board of Health and
Superintendent of Registration of Vital Statistics.

REGISTRATION REPORT,

1878.

The present is the first Report issued under the direction of the State Board of Health, to which is given the general supervision of the State system of registration of births, marriages, and deaths. The returns for the year were made to the Board, but direct supervision was exercised only during the last six months of the year. The subject of registration was very fully discussed by Dr. Lindsley in the Sanitary Report. By a modification in the law, prompt returns are now secured generally in the cities, and to considerable extent throughout the State. It is impossible to secure completeness and accuracy when the returns are made to the registrar only at the end of the year, as certified by the compilers of the ninth census and all statisticians. Even if the number be nearly complete, the cause of death, or other important facts, will be incorrectly stated, if at all. There is a field for constant effort for some time to come in improving the completeness and accuracy of the returns. The success already achieved affords encouragement for the future; the progress appears to be of a permanent and enduring nature, and the measures have the support of the intelligent and thoughtful. Of the importance to the State of complete public records in this department no argument is needed, as it is by this means alone that much that is essential to the successful management of public affairs can be learned. The protection of individual rights, the prevention of crime, and the interests of public order and morality, as well as the advancement of healthy living, and thereby prosperity as well as longevity, are thus secured. One of the most important sanitary laws thus derived is stated by Dr. Bowditch in two propositions:

1st. A residence on or near a damp soil, whether that dampness be inherent in the soil itself, or caused by percolation from adjacent ponds, rivers, meadows, marshes, or spongy soil, is one of the

principal causes of consumption in Massachusetts, probably in New England, and possibly in other portions of the globe.

2d. Consumption can be checked in its career, and possibly, nay, probably, prevented in some instances by attention to this law.

The application of this law to England and other lands has since been demonstrated. The control over the development of epidemic diseases like cholera and small pox, the powers of quarantine, and indeed not only does our knowledge of sanitary laws and all progressive gain rest upon a statistical basis, but also much of our progress in medical knowledge, if not all real gain in the power over disease.

In the present report the statistics of the year 1878 are presented, in relation to age, sex, and season, and, as far as may be, locality and nationality. As the results of the coming census will be available for our next report, many comparative statements can more profitably be then discussed. It is to be hoped that hereafter we may have a census once in five years, as the population, especially of the manufacturing centres, is so mutable that no system of estimates will give uniformly satisfactory results.

During the year 1878 there were 13,499 births, 4,285 marriages, 9,352 deaths, and 401 divorces. The number of registered births was less than in 1877 by 378. The number of registered marriages by 24. The number of registered deaths by 344. The number of divorces by 26.

The increase of births over deaths is 4,135, which is 241 less than in 1877, and somewhat less than the average for the last ten years. The sanitary history for the year, on the whole, does not give a favorable showing, and special causes will be analyzed later. One singular feature is the large number, comparatively, of sudden violent deaths. The tornado in Wallingford killed 30, the railroad accident at Tariffville 12, the steamboat explosion at Norwalk 12. These contribute to swell the totals from accident and violence.

The daily average of natural increase was 11.3.

Daily average of births, 19 m., 18 f., 37.

Daily average of marriages, 11.2.

Daily average of deaths, 25.6.

There were 221 colored births, five less than in 1877; 80 marriages, 16 less than in 1877; 240 deaths, one hundred *more* than in 1877, and 19 more than the births reported. The following table shows these statistics by counties:

VITAL STATISTICS OF COLORED POPULATION.

Counties.	Births.				Marriages.	Deaths.			
	M.	F.	N. S.	Total.		M.	F.	N. S.	Total.
Hartford,	23	19	4	46	18	25	30	2	57
New Haven,	32	38		70	30	37	42		79
New London,	10	12		22	13	15	15		30
Fairfield,	28	13	1	42	3	24	17	1	42
Windham,	5	6		11	6	4	3		7
Litchfield,	11	5		16	4	5	6		11
Middlesex,	4	5		9	3	1	9		10
Tolland,	1	4		5	2	3	1		4
Total,	114	102	5	221	80	114	123	3	240

There were 401 divorces granted in 1878, a less number than for many years. The following tables were reported by the State Librarian:

DIVORCES, 1878.

	Husband's Petition.	Wife's Petition.		Total in 1877.
Hartford,	27	47	74	72
New Haven,	28	83	111	97
New London,	11	41	52	44
Fairfield,		51	74	92
Windham,	10	18	28	35
Litchfield,	7	16	23	36
Middlesex,	3	15	18	23
Tolland,	6	15	21	28
Total,	115	286	401	427

Cause.	Hartford Co.	New Haven Co.	New London Co.	Fairfield Co.	Windham Co.	Litchfield Co.	Middlesex Co.	Tolland Co.
Absence,								
Adultery,	10	16	6	15	5	3	2	1
Infamous Crime,								
Cruelty,	15	20	14	16		3	6	8
Desertion,	24	42	9	57	10	14	5	6
Fraudulent Contract,				1		1		
Intemperance,	15	36	16	26	7	4	3	8
Misconduct,	10	36	7		6	2	6	1
Life Imprisonment,								

The classification of causes is liable to the same imperfections as before, in that several causes are often assigned instead of one, and often of equal importance. The repeal of the so-called omnibus clause and other changes in the divorce laws, may have a tendency to decrease the number of divorces.

The nomenclature of diseases adopted in 1877 is followed with some slight variations, as it is the one most commonly in use at the present time, and renders comparative results more easily ascertainable, as well as secures the general advantages of uniformity. The tables will, it is hoped, aid in obtaining a better attention to details in the returns, as their relation to the facts required by the certificates is apparent, and also the value of these facts in giving a complete abstract of the vital history of the year and the manner each class and interest is affected by these annual changes and movements.

The greatest deficiency exists in the returns of occupations, and it is hoped that greater attention will be paid to this subject by registrars and those whose duty it is to make the returns. The relations of occupation to disease are extremely important as well as interesting; a brief analysis of the proportion returned will give some idea of the value of complete returns upon this subject.

CAUSES OF DEATH.

TABULAR LIST.	SUPPLEMENTAL LIST *Of Diseases of Special Character (or Synonymes).*
CLASS I. Zymotic Diseases.	
Order I.—*Miasmatic.*	
I. 1.—1. Smallpox,	I. 1.—1. Vaccination not stated. Smallpox (2d attack). After vaccination. Erysipelas, etc., after vaccination. Chickenpox. Miliaria.
2. Measles,	2. Rubeola.
3. Scarlet Fever,	3. Angina maligna.
4. Diphtheria,	
5. Quinsy,	5. Mumps. Tonsillitis.
6. Croup,	
7. Whooping Cough,	
8. Typhoid (and Infantile) Fever,	8. Typhus fever.
9. Erysipelas,	9. Phlebitis. Pyemia. Hospital gangrene. Erythema.
10. Puerperal Fever (Metria),	10. Childbed fever.
11. Carbuncle,	11. Anthrax.
12. Influenza,	
13. Dysentery,	
14. Diarrhœa, Cholera Morbus,	
15. Cholera Infantum,	
16. Cholera,	
17. Intermittent Fever,	17. Malarial fever.
18. Remittent Fever,	18. Yellow fever.
19. Typho-Malarial Fever,	
20. Rheumatism,	20. Rheumatism with pericarditis, or disease of heart.
21. Cerebro-spinal Meningitis,	21. "Spotted fever."
Order 2.—*Enthetic.*	
I. 2.—1. Syphilis,	I. 2.—1. Gonorrhœa. Purulent ophthalmia.
2. Stricture of Urethra,	
3. Hydrophobia,	
4. Glanders,	4. Malignant pustule. Necusia (usually from dissection wounds).
Order 3.—*Dietic.*	
I. 3.—1. Privation,	I. 3.—1. Want of breast milk.
2. Purpura and Scurvy,	2. Rickets. Bronchocele.
3. Delirium tremens, } (Alcohol-	
4. Intemperance, } ism),	
Order 4.—*Parasitic.*	
I. 4.—1. Thrush,	I. 4.—3. Porrigo. Scabies. Tape-worm. Hydatids. Trichiniasis.
2. Worms, &c.,	
CLASS II. Constitutional Diseases.	
Order 1.—*Diathetic.*	
II. 1.—1. Gout,	II. 1.—3. Soft cancer. Sweep's cancer. Melanosis. Other kinds of cancer. Polypus (part not stated). Lupus.
2. Dropsy and Anæmia,	
3. Cancer,	
4. Noma (or Canker),	
5. Mortification,	5. Bed-sore. Dry gangrene.
6. Leucocythæmia,	

CAUSES OF DEATH.—*Continued.*

TABULAR LIST.	SUPPLEMENTAL LIST.
ORDER 2.—*Tubercular.*	
II. 2.—1. Scrofula,	II. 2.—1. Psoas (lumbar) abscess.
	Hip joint disease.
	White swelling.
	Cretinism.
2. Tabes Mesenterica,	2. Tubercular peritonitis.
3. Phthisis (Consumption, Tubercular),	3. Hæmoptysis.
4. Hydrocephalus,	4. Tubercular meningitis.
CLASS III. LOCAL DISEASES.	
ORDER 1.—*Nervous System.*	
III. 1.—1. Cephalitis,	III. 1.—1. Phrenitis. Myelitis.
2. Apoplexy,	4. Monomania.
3. Paralysis,	Fright.
4. Insanity,	Grief.
5. Chorea,	Melancholia.
6. Epilepsy,	Rage.
7. Tetanus,	6. Hysteria.
8. Convulsions,	8. Laryngismus stridulus.
9. *Brain Diseases,**	9. Neuralgia.
10. Meningitis, &c.,	Ophthalmia.
	Otitis.
	Dis. of spinal marrow.
	Necrencephalus. (Softening of Brain.)
ORDER 2.—*Organs of Circulation.*	
III. 2.—1. Pericarditis,†	III. 2.—1. Carditis.
2. Aneurism,	Endocarditis.
3. *Heart Diseases,*‡	3. Hypertrophia.
4. Valvular disease, &c.,	Angina Pectoris.
5. Embolism,	Syncope.
6. Phlebitis,	Arteritis.
	Hydropericardium.
ORDER 3.—*Respiratory Organs.*	
III. 3.—1. Epistaxis,	III. 3.—2. Œdema glottidis.
2. Laryngitis,	4. Empyema.
3. Bronchitis,	Hydrothorax.
4. Pleurisy,	Diaphragmitis.
5. Pneumonia,	Pneumothorax.
6. Asthma,	5. Pulmonary apoplexy.
7. *Lung Diseases,*‡ &c.,	Pleuro pneumonia.
	6. Grinders' asthma.
	Miners' asthma.
	Emphysema.
ORDER 4.—*Digestive Organs.*	
III. 4.—1. Gastritis,	III. 4.—1. Glossitis.
2. Enteritis,	Stomatitis.
3. Peritonitis,	Pharyngitis.
4. Ascites,	Œsophagitis.
5. Ulceration of Intestines,	5. Perforation of—
6. Hernia,	6. Congenital.
7. Ileus,	Femoral.
8. Intussusception,	Inguinal.
9. Stricture of Intestines,	Scrotal.
10. Fistula,	Umbilical.
11. *Stomach Diseases,*‡ &c.,	Ventral.
12. Colic,	7. Constipation.
	11. Dyspepsia.
	Pyrosis.

*Other diseases of the brain, or diseases of the nervous system, *not otherwise distinguished*, are referred to this head. *Mutatis mutandis*, the note applies to the corresponding heads in other Orders of this Class.

† [See also I. 1.—19.]

‡ See Note under III. 1.—9.

CAUSES OF DEATH.—(*Continued.*)

TABULAR LIST.	SUPPLEMENTAL LIST.
CLASS III.—(Continued).	
12. *Pancreas Disease,‡ &c.*,	Gastralgia.
13. Hepatitis,	Hæmatemesis.
14. Jaundice,	Melæna.
15. *Liver Disease,‡ &c.*,	Hæmorrhoids.
16. *Spleen Disease,‡ &c.*,	14. Gall-stones.
	15. Cirrhosis.
ORDER 5.—*Urinary Organs.*	
III. 5.—1. Nephritis,	III. 5.—3. Albuminuria.
2. Ischuria,	6. Cystirrhœa.
3. Nephria (Bright's disease),	7. Diuresis.
4. Diabetes,	Hæmaturia.
5. Calculus (Gravel, &c.),	Dis. of prostate.
6. Cystitis,	Dis. of bladder.
7. *Kidney Disease,‡ &c.*,	
8. Uræmia,	
ORDER 6.—*Generative Organs.*	
III. 6.—1. Ovarian Dropsy,	III. 6.—1. Ovarian tumor.
2. *Disease of Uterus,‡ &c.*,	2. Hysteritis (inflam'tion of womb). Metritis.
	Uterine tumor.
	Polypus uteri.
	Orchitis.
	Hydrocele.
ORDER 7.—*Organs of Locomotion.*	
III. 7.—1. Arthritis,	III. 7.—1. Ostitis.
2. *Joint Disease,‡ &c.*,	Periostitis.
	2. Fragilitas ossium.
	Mollities ossium.
	Caries.
	Necrosis.
	Exostosis.
ORDER 8.—*Integumentary System.*	
III. 8.—1. Phlegmon,	III. 8.—1. Abscess (part not stated).
2. Ulcer,	Boil.
3. *Skin Diseases,‡ &c.*,	Whitlow.
	3. Roseola.
	Urticaria.
	Eczema.
	Herpes.
	Pemphigus.
	Ecthyma.
	Impetigo.
	Psoriasis.
	Ichthyosis.
	Tumor (part not stated).
CLASS IV. DEVELOPMENTAL DISEASES.	
ORDER 1.—*Developmental Diseases of Children.*	
IV. 1.—1. Stillborn,	IV. 1.—2. Atelectasis.
2. Premature Birth and Infantile Debility,	5. Anus imperforatus.
3. Cyanosis,	Cleft palate.
4. Spina Bifida,	Idiocy.
5. Other Malformations,	
6. Teething,	
7. Trismus nascentium,	

‡ See Note under III. 1.—9.

CAUSES OF DEATH.—*Concluded.*

TABULAR LIST.	SUPPLEMENTAL LIST.
ORDER 2.—*Developmental Diseases of Women.*	
IV. 2.—1. Paramenia, ...	IV. 2.—1. Chlorosis.
	Climacteria.
	Menorrhagia.
2. Childbirth. (*See* Metria I. 1.–9.)	2. Miscarriage.
	Abortion.
	Puerperal mania.
	Puerperal convulsions.
	Phlegmasia dolens.
	Cæsarian operation.
	Extra-uterine fœtation.
	Flooding.
	Retention of placenta.
	Presentat'n of placenta.
	Deformed pelvis.
	Breast abscess.
ORDER 3.—*Developmental Diseases of Old People.*	
IV. 3.—1. Old Age, ...	
ORDER 4.—*Diseases of Nutrition.*	
IV. 4.—1. Atrophy and Debility.	
CLASS V. VIOLENT DEATHS.	
ORDER 1.—*Accident or Negligence.*	
V. 1.—1. Fractures and Contusions,‖ .	V. 1.—1. Railroad accidents.
2. Wounds, ...	5. Lost at sea.
3. Burns and Scalds, . .	6. Asphyxia.
	Strangulation.
4. Poison, ...	7. Exposure.
5. Drowning, ...	Cold water.
6. Suffocation, ...	Frozen.
7. Otherwise, ...	Heat.
	Lightning.
	Surgical operation.
	Neglect.
ORDER 2.—*In Battle.*	
ORDER 3.—*Homicide.*	
ORDER 4.—*Suicide.*	
V. 4.—1. Wounds, ...	
2. Poison, ...	
3. Drowning, ...	
4. Hanging, ...	
5. Otherwise, ...	
ORDER 5.—*Execution.*	
V. 5.—1. Hanging, ...	
V. 6.—Violent Deaths, not classed ("casualty"), . . .	
Sudden, cause unascertained, .	

NOTE.—Cases of "infantile fever" are classed with relapsing fever, under one name, "typhoid fever." Cases of "rheumatic fever" are classed with "rheumatism;" of "hemorrhage," and "abscess," with the diseases of the organs affected. Cases of death from cold, heat, drinking cold water, lightning, surgical operation, and exposure, are placed under "Otherwise" [V. 7]. As "stricture of the urethra" is almost invariably the result of gonorrhœa, it is classed as I. 2.—2. Gastric fever is classed under Gastritis.

‖Including "Railroad Accidents."

TABLE 1.

BIRTHS, MARRIAGES, AND DEATHS IN THE SEVERAL TOWNS, FOR THE YEAR ENDING DECEMBER 30, 1878.

HARTFORD COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.							
		Sex.				Parentage.													Sex.				Nativity.			
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Hartford	37,743	496	390	..	886	339	395	53	64	35	223	76	23	41	3	366	13	32	385	367	4	756	545	181	30
Avon	987	10	7	..	17	12	3	1	1	..	1	..	....	2	..	3	..	1	6	8	..	14	12	2	..
Berlin	2,346	40	27	..	67	31	34	....	2	..	12	...	1	....	..	13	1	..	18	9	..	27	26	1	..
Bloomfield	1,437	12	12	..	24	18	3	2	1	..	5	...	...	1	..	6	..	..	7	9	..	16	8	2	6
Bristol	3,788	56	49	2	107	66	26	4	10	1	38	2	....	5	..	45	1	4	33	31	..	64	54	10	..
Burlington	1,319	17	20	..	37	12	16	1	3	5	2	...	....	....	..	2	..	..	14	7	..	21	17	4	..
Canton	2,639	24	43	..	67	31	36	....	....	..	15	12	....	....	..	27	..	1	19	14	..	33	27	6	..
East Granby	853	10	6	..	16	15	1	....	....	..	4	....	....	....	..	4	1	..	7	9	..	16	13	3	..
East Hartford	3,007	56	32	..	88	47	28	5	5	3	17	3	4	4	..	28	1	5	28	27	..	55	45	7	3
East Windsor	2,882	26	24	..	50	18	27	2	3	..	16	...	...	4	..	20	..	..	15	14	..	29	24	5	..
Enfield	6,322	80	66	1	147	50	79	3	15	..	42	8	4	8	..	62	15	15	43	82	1	126	92	34	..
Farmington	2,616	20	20	..	40	22	12	3	3	..	10	...	1	....	..	11	..	..	20	26	..	46	36	7	3
Glastonbury	3,560	42	26	1	69	53	13	2	1	..	22	1	....	....	..	23	1	1	21	23	..	44	31	3	5
Granby	1,517	13	7	..	20	18	2	....	....	..	9	...	....	1	..	10	..	2	15	17	..	32	36	1	..
Hartland	789	4	5	1	10	8	2	....	....	..	2	....	....	....	..	2	..	..	3	3	..	6	7	....	..
Manchester	4,223	65	54	..	119	47	60	5	7	..	14	9	5	4	..	32	..	3	38	27	..	65	46	18	..
Marlborough	476	5	1	..	6	6	....	....	....	..	....	....	....	1	..	1	..	..	3	4	..	7	4	1	..
New Britain	9,480	215	182	5	402	183	177	14	28	..	48	21	7	17	4	97	1	6	97	96	2	195	116	38	53
Newington	778	4	12	1	16	7	8	1	....	..	4	1	....	....	..	5	..	..	8	9	1	18	16	2	..
Plainville	1,433	14	13	..	27	18	7	....	2	..	11	1	1	1	..	14	..	1	7	7	..	14	11	3	..
Rocky Hill	971	12	7	..	19	13	4	1	1	..	4	....	....	....	..	4	..	..	3	10	..	13	10	2	1
Simsbury	2,051	24	13	..	37	26	11	....	....	..	11	1	....	....	..	12	..	..	28	22	..	50	40	10	..
Southington	4,314	69	50	3	122	62	35	7	18	..	25	...	5	5	..	35	..	..	48	34	..	82	70	12	..
South Windsor	1,688	28	23	..	51	29	17	5	....	..	17	...	1	....	..	18	..	2	9	12	2	23	21	2	..
Suffield	3,277	30	29	..	59	31	25	2	1	..	17	...	2	2	1	22	2	5	20	12	..	32	23	9	..
West Hartford	1,533	6	7	..	13	10	2	....	1	..	8	1	....	....	..	9	1	..	8	17	..	25	21	3	1
Wethersfield	1,915	20	17	..	37	23	9	1	4	..	11	...	....	....	..	11	..	1	17	18	..	35	33	2	..
Windsor	2,783	27	27	..	54	25	21	2	6	..	8	2	....	1	..	11	..	1	10	6	..	26	23	3	..
Windsor Locks	2,154	25	23	..	48	24	15	1	8	..	12	10	1	3	..	26	3	1	13	17	..	30	18	12	..
Totals	109,007	1,450	1,192	14	2,656	1,247	1,066	115	184	44	608	148	55	100	8	919	40	80	950	940	10	1,900	1,425	379	96

NEW HAVEN COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.							DEATHS.						
		Sex.				Parentage.												Sex.				Nativity.		
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
New Haven	50,480	968	937	..	1,905	628	1,045	80	152	..	282	124	34	66	..	506	7	33	585	568	..	1,153	887	266	..
Beacon Falls*	.....	7	5	..	12	3	6	2	1	..	1	1	....	....	..	2	1	..	.....	6	..	6	6	..	..
Bethany	1,135	7	5	..	12	11	1	....	....	..	2	....	....	....	..	2	....	..	4	1	..	5	5	..	..
Branford	2,488	32	28	..	60	33	17	1	6	..	14	1	2	5	..	22	..	1	22	27	..	49	44	3	2
Cheshire	2,344	27	18	..	45	27	16	1	1	..	10	....	2	1	..	13	..	1	15	20	..	35	29	6	..
Derby	8,020	159	123	3	285	88	145	17	31	..	46	17	3	5	..	71	46	..	78	100	..	178	146	27	5
East Haven	2,714	24	19	..	43	29	12	....	....	..	13	....	1	....	..	14	12	2	18	11	..	29	23	4	2
Guilford	2,476	26	23	..	49	38	8	2	1	..	13	....	1	....	..	14	....	..	18	20	..	38	37	..	1
Hamden	3,028	15	20	..	35	15	13	3	4	..	10	....	....	2	..	12	....	..	24	20	1	45	30	8	7
Madison	1,814	9	8	..	17	12	4	....	1	..	10	....	....	....	..	10	....	..	12	14	..	26	25	1	..
Meriden	10,495	254	206	..	460	176	217	24	39	4	66	32	7	22	..	127	1	7	189	178	..	367	280	87	..
Middlebury	696	3	3	..	6	5	1	....	....	..	6	....	....	....	..	6	....	..	6	6	..	12	11	1	..
Milford	3,405	28	21	..	49	42	5	....	2	..	15	2	1	....	..	18	1	1	31	38	..	69	60	5	4
Naugatuck	2,830	56	65	..	121	41	40	7	3	30	12	9	6	4	..	31	..	1	30	29	..	59	45	14	..
North Branford	1,035	5	7	..	12	11	1	....	....	..	5	....	....	1	..	6	....	..	6	4	..	10	9	1	..
North Haven	1,771	14	15	..	29	18	9	....	....	2	6	....	....	1	..	7	....	..	7	14	..	21	20	1	..
Orange	2,634	19	40	..	59	30	20	2	6	..	9	....	....	1	..	10	..	1	19	25	..	44	38	6	..
Oxford	1,338	9	13	..	22	19	3	....	....	..	5	....	....	....	..	5	1	..	10	8	..	18	16	2	..
Prospect	551	2	2	..	4	4	....	....	....	..	2	....	....	....	..	2	....	..	5	2	..	7	6	1	..
Seymour	2,122	37	21	..	58	29	22	2	5	..	13	1	1	5	..	20	..	1	19	18	..	37	32	5	..
Southbury	1,318	14	12	..	26	20	4	1	1	..	10	....	....	....	..	10	..	1	12	5	..	17	17	....	..
Wallingford	3,676	68	51	2	121	53	48	4	11	5	18	6	1	6	..	31	..	1	46	38	1	85	68	16	1
Waterbury	13,106	224	226	..	450	140	276	20	23	..	92	34	14	28	..	168	..	1	121	113	..	234	152	82	..
Wolcott	491	2	2	1	5	4	1	....	....	..	....	....	....	....	..	....	....	..	3	2	..	5	5	....	..
Woodbridge	830	11	4	..	15	13	2	....	1	..	3	....	....	....	..	3	....	..	2	11	..	13	11	2	..
Totals	121,257	2,020	1,874	6	3,900	1,489	1,916	166	288	41	663	227	73	147	..	1,110	69	51	1,284	1,276	2	2,562	2,002	538	22

*Made a town in 1871, from Bethany, Naugatuck, Oxford, and Seymour.

NEW LONDON COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.							
		Sex.				Parentage.													Sex.				Nativity.			
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband. Am. Wife.	Am. Husband. For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
New London	9,576	132	121	4	257	163	86	5	5	..	50	10	7	9	..	76	.	5	92	100	19	211	179	32	..
Norwich	16,653	247	222	3	472	177	280	15	....	..	94	31	13	23	..	161	1	3	265	230	2	497	389	108	..
Bozrah	984	8	4	..	12	2	9	1	....	..	5	...	1	1	..	7	..	1	2	4	..	6	4	2	..
Colchester	3,383	21	29	..	50	21	22	2	5	..	17	6	4	6	..	33	..	1	34	30	..	64	48	7	9
East Lyme	1,506	21	21	1	43	31	11	....	1	..	9	...	....	....	..	9	2	..	15	16	..	31	19	....	12
Franklin	731	2	2	..	4	4	....	....	....	..	4	...	....	....	..	4	..	1	7	2	..	9	9	....	..
Griswold	2,575	22	27	7	56	28	23	4	1	..	15	10	3	1	..	29	..	5	18	11	..	29	25	4	..
Groton	5,124	33	50	2	85	75	9	....	1	..	39	1	4	....	..	44	..	7	38	23	..	61	58	3	..
Lebanon	2,211	14	11	..	25	21	3	....	1	..	10	1	....	....	..	11	..	..	8	13	..	21	21	..	..
Ledyard	1,392	13	11	..	24	....	....	....	....	24	4	...	....	....	..	4	..	..	9	16	..	25	25	....	..
Lisbon	502	11	6	..	17	7	9	1	....	..	1	...	....	....	..	1	..	..	6	8	..	14	12	2	..
Lyme	1,181	11	13	..	24	23	....	....	1	..	12	...	....	....	..	12	1	..	11	6	..	17	16	....	1
Montville	2,495	25	19	..	44	29	11	1	3	..	12	...	....	....	..	12	..	2	5	10	..	15	14	1	..
North Stonington	1,759	25	13	..	38	30	4	3	1	..	3	...	....	....	..	3	..	..	26	22	..	48	47	1	..
Old Lyme	1,362	15	19	1	35	28	6	1	....	..	10	...	....	....	..	10	..	1	8	5	..	13	13	....	..
Preston	2,161	14	10	..	24	21	2	..	1	..	4	1	1	1	..	7	..	1	19	21	..	40	....	....	40
Salem	717	3	4	..	7	4	3	....	....	..	4	...	....	....	..	4	..	..	4	3	..	7	7	....	..
Sprague	3,463	56	40	..	96	6	90	....	....	..	5	21	4	....	..	30	..	..	29	22	..	51	33	18	..
Stonington	6,313	74	59	..	133	71	51	5	6	..	21	8	2	7	..	38	5	1	42	47	..	89	57	15	17
Waterford	2,482	27	18	3	48	38	9	....	1	..	18	...	....	1	..	19	..	2	9	13	..	22	22	....	..
Total	66,570	774	699	21	1,494	777	628	38	27	24	337	89	39	49	..	514	9	30	647	602	21	1,270	998	193	79

FAIRFIELD COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.							
		Sex.				Parentage.													Sex.				Nativity.			
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Danbury	8,753	128	88	2	218	121	81	4	9	3	54	8	4	4	7	77	1	5	72	57	2	131	76	10	45
Bridgeport	19,835	460	426	8	894	282	289	30	70	223	121	45	13	23	32	234	..	13	208	185	6	399	290	49	60
Bethel	2,311	30	19	..	49	36	9	1	3	...	9	...	...	...	..	9	1	1	16	23	..	39	33	5	1
Brookfield	1,193	15	6	..	21	12	8	1	....	...	1	...	....	....	..	1	..	..	7	7	..	14	14	...	...
Darien	1,808	13	21	1	35	27	7	....	1	...	9	...	....	....	..	9	..	2	14	11	..	25	25	...	...
Easton	1,288	10	6	..	16	12	4	....	....	...	3	...	....	....	..	3	..	..	4	8	..	12	12	...	...
Fairfield	5,645	28	23	..	51	27	15	4	5	...	19	4	....	....	4	27	1	1	13	28	..	41	37	4	...
Greenwich	7,644	50	39	..	89	56	23	5	5	...	17	...	5	4	..	26	4	3	42	34	..	76	67	9	...
Huntington	1,527	23	22	..	45	32	8	1	4	...	8	1	....	....	..	9	..	..	15	16	..	31	28	2	1
Monroe	1,226	5	1	..	6	6	....	....	....	...	13	...	....	....	..	13	..	..	3	3	..	6	6	...	...
New Canaan	2,497	23	16	1	40	27	8	....	5	...	11	...	....	1	..	12	..	2	17	18	..	35	32	2	1
New Fairfield	870	9	4	..	13	12	1	....	....	...	...	...	....	....	..	....	..	..	6	5	1	12	12	...	...
Newtown	3,681	35	18	..	53	24	27	2	....	...	14	8	1	3	..	26	..	..	21	18	..	39	32	7	...
Norwalk	12,119	155	134	1	290	186	172	11	19	2	43	5	9	7	..	64	1	10	121	95	1	217	183	28	6
Reading	1,624	10	15	..	25	17	8	....	....	...	4	...	....	....	..	4	..	..	8	9	..	17	16	1	...
Ridgefield	1,919	12	11	..	23	22	....	....	1	...	9	1	....	1	..	11	..	..	17	14	1	32	30	1	1
Sherman	846	10	10	..	20	19	1	....	....	...	3	...	....	....	..	3	..	..	9	5	..	14	13	1	...
Stamford	9,714	154	135	1	290	71	188	9	18	4	47	13	3	7	..	70	1	12	99	80	1	180	146	36	8
Stratford	3,032	9	8	..	18	13	4	1	....	...	24	1	1	1	..	27	1	4	10	13	..	23	22	1	...
Trumbull	1,335	11	8	.	19	17	2	....	....	...	5	...	....	2	..	7	..	..	8	12	..	20	20	...	...
Weston	1,054	7	7	..	14	10	4	....	....	...	8	...	....	....	..	8	..	1	4	7	..	11	10	1	...
Westport	3,361	27	31	3	61	41	13	3	4	...	19	2	2	....	..	23	..	2	30	20	1	51	45	6	...
Wilton	1,994	15	15	..	30	23	1	2	4	...	10	...	...	2	..	12	..	2	12	19	..	31	9	1	21
Totals	95,276	1,239	1,064	17	2,320	993	873	74	148	232	451	88	38	55	43	675	9	58	756	687	13	1,456	1,148	164	144

WINDHAM COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.							
		Sex.				Parentage.													Sex.				Nativity.			
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Brooklyn	2,354	21	19	..	40	15	25	....	....	..	..	2	....	....	..	4	..	1	16	15	..	31	26	5	..
Ashford	1,241	2	6	..	8	8	....	....	....	..	4	....	....	1	..	5	..	..	10	5	..	15	12	1	2
Canterbury	1,543	7	12	..	19	15	2	1	1	..	9	....	....	....	..	9	..	1	8	10	..	18	17	1	..
Chaplin	704	4	7	..	11	10	....	....	1	..	3	....	....	....	..	3	..	..	3	3	..	6	6	....	..
Eastford	983	6	4	..	10	10	....	....	....	..	8	....	....	....	..	8	..	..	12	11	..	23	22	1	..
Hampton	891	5	10	..	15	13	2	....	....	..	..	....	....	....	..	....	..	..	6	9	..	15	14	1	..
Killingly	5,712	102	87	..	189	93	81	8	7	..	27	22	6	4	..	59	1	5	69	37	..	106	89	17	..
Plainfield	4,521	31	43	..	74	33	35	....	6	..	20	3	3	....	..	25	5	1	23	15	..	38	38	....	..
Pomfret	1,488	21	22	..	43	29	8	2	4	..	3	2	....	....	..	6	..	2	19	9	..	28	28	....	..
Putnam	4,192	100	112	4	216	53	145	18	....	..	43	25	3	4	..	75	2	17	55	63	3	121	83	38	..
Scotland	643	2	2	..	4	2	2	....	....	..	8	....	....	....	..	8	..	..	3	6	..	9	9	....	..
Sterling	1,022	11	10	..	21	10	9	....	2	..	4	1	....	....	..	5	2	..	4	3	..	7	7	....	..
Thompson	3,804	67	71	..	138	22	108	4	4	..	16	23	3	....	..	42	2	4	51	38	1	90	74	16	..
Voluntown	1,052	25	14	..	39	28	11	....	....	..	7	....	1	....	..	8	..	..	11	11	..	22	20	2	..
Windham	5,412	97	89	1	187	71	88	13	15	..	58	8	2	5	..	73	1	7	58	66	2	126	100	15	11
Woodstock	2,955	20	12	..	32	30	2	....	..	..	9	....	....	1	..	10	1	2	13	19	..	32	27	2	3
Totals	38,518	521	520	5	1,046	442	518	46	40	..	221	86	18	15	..	340	14	40	363	318	6	687	571	99	17

LITCHFIELD COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.						
		Sex.				Parentage.													Sex.				Nativity.		
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Litchfield	3,111	36	18	..	55	34	15	....	1	..	21	4	....	....	..	25	..	1	16	23	..	39	30	3	6
Barkhamsted	1,439	6	9	..	15	11	4	....	....	..	10	..	....	....	..	10	2	..	7	6	..	13	12	1	..
Bethlehem	750	7	6	..	13	9	1	1	2	..	7	..	....	....	..	7	..	1	5	1	..	6	6	..	..
Bridgewater	877	5	6	..	11	11	....	....	....	..	1	..	....	....	..	1	..	..	3	3	..	6	6	..	..
Canaan	1,257	10	8	..	18	15	3	....	....	..	4	..	....	....	..	4	..	..	4	5	..	9	8	..	..
Colebrook	1,141	3	3	..	6	6	....	....	....	..	5	..	1	1	..	7	1	3	4	5	..	9	5	1	3
Cornwall	1,772	15	8	..	23	15	8	....	....	..	10	..	....	1	..	11	..	1	8	8	..	16	16	..	..
Goshen	1,223	7	4	1	12	10	2	....	....	..	7	..	....	....	..	7	..	1	6	4	1	11	11	..	..
Harwinton	1,044	9	8	..	17	14	1	....	2	..	10	..	....	....	..	....	..	..	6	9	..	15	14	1	..
Kent	1,744	9	13	..	22	20	2	....	....	..	9	..	....	1	..	10	..	1	7	6	..	13	12	1	..
Morris	701	5	2	..	7	7	....	....	....	..	1	..	....	....	..	1	..	..	7	6	..	13	13	..	..
New Hartford	3,078	45	34	1	80	37	39	....	4	..	10	2	2	....	1	15	2	2	29	21	..	50	32	14	4
New Milford	3,586	35	29	..	64	44	17	2	1	..	33	1	....	....	1	34	..	1	19	22	..	41	25	1	15
Norfolk	1,641	8	12	..	20	12	8	....	....	..	8	..	....	....	..	8	1	3	6	13	1	20	16	3	1
North Canaan	1,695	25	20	..	45	24	20	....	1	..	5	..	....	....	..	5	..	..	13	9	..	22	22	..	..
Plymouth	4,149	15	20	..	35	23	11	1	....	..	8	..	....	2	..	10	..	..	8	8	..	16	12	4	..
Roxbury	919	6	9	..	15	13	1	1	....	..	5	..	....	1	..	6	..	..	5	8	..	13	10	3	..
Salisbury	3,303	50	39	..	89	52	37	....	....	..	13	2	1	1	..	17	2	4	19	15	1	35	30	5	..
Sharon	2,441	14	23	..	37	29	5	....	3	..	9	..	....	....	..	9	..	2	16	10	..	26	19	3	4
Thomaston	....	38	37	1	76	28	35	4	9	..	11	4	3	2	..	19	..	..	16	14	..	30	27	2	1
Torrington	2,893	30	29	..	59	25	28	3	3	..	13	..	2	2	..	17	1	1	30	22	..	52	38	14	..
Warren	673	10	4	..	14	11	3	....	....	..	7	..	....	....	..	7	..	1	5	2	..	7	7	..	..
Washington	1,563	12	21	..	33	17	11	1	3	..	8	..	....	....	..	8	..	..	8	9	..	17	15	2	..
Watertown	1,698	20	10	..	30	22	8	1	1	..	10	..	....	2	..	14	1	3	5	13	..	18	17	1	..
Winchester	4,096	79	61	1	141	66	59	7	9	..	37	2	4	3	..	46	..	5	40	38	1	79	69	10	..
Woodbury	1,931	21	23	..	44	20	22	1	1	..	9	..	....	3	..	12	..	..	10	16	3	29	22	7	..
Totals	48,727	520	456	4	981	577	338	22	40	..	272	15	13	19	2	321	10	30	302	296	7	605	496	75	34

MIDDLESEX COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.							DEATHS.						
		Sex.				Parentage.												Sex.				Nativity.		
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Middletown	11,126	104	103	1	208	116	68	13	21	..	72	27	6	6	..	111	..	7	91	115	..	206	156	45	5
Haddam	2,071	24	12	..	36	26	4	....	6	..	10	3	....	1	..	14	..	1	12	14	..	26	26	...	..
Chatham	2,771	23	22	..	45	32	12	....	1	..	7	...	....	....	..	7	..	..	13	15	..	28	28	...	..
Chester	1,094	14	10	..	24	.....	.....	....	....	24	3	3	....	1	..	7	..	..	13	8	..	21	17	4	..
Clinton	1,404	6	16	..	22	21	1	....	....	..	10	...	....	....	..	10	..	..	10	14	..	24	21	...	3
Cromwell	1,856	14	18	1	33	9	18	2	4	..	1	...	2	1	..	4	..	..	13	17	..	30	21	9	..
Durham	1,086	9	6	..	15	10	3	2	....	..	5	...	....	....	..	5	..	..	8	7	..	15	10	5	..
East Haddam	2,951	27	20	..	47	42	5	....	....	..	22	...	1	2	..	25	1	3	28	18	..	46	44	2	..
Essex	1,669	11	15	..	26	22	4	....	....	..	14	...	....	....	..	14	..	..	10	5	..	15	15	...	..
Killingworth	856	1	5	..	6	5	1	....	....	..	5	...	....	....	..	5	..	..	4	5	..	9	9	...	..
Middlefield	1,053	3	8	..	11	5	4	1	1	..	2	...	....	....	..	2	..	..	2	7	..	9	8	1	..
Old Saybrook	1,215	14	11	..	25	16	8	1	....	..	8	1	....	....	..	9	..	2	7	11	..	18	17	1	..
Portland	4,693	51	40	..	91	30	58	2	1	..	6	15	4	2	..	27	..	3	27	39	..	66	46	20	..
Saybrook	1,267	10	12	..	22	16	3	2	1	..	4	...	....	....	..	4	..	..	12	8	..	20	20	...	..
Westbrook	987	5	7	..	12	12	.....	....	....	..	7	...	....	1	..	8	..	1	9	13	..	22	22	...	..
Totals	36,099	316	305	2	623	362	189	23	35	24	176	49	13	14	..	252	1	17	259	296	..	555	460	87	8

TOLLAND COUNTY.

TOWNS.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.							
		Sex.				Parentage.													Sex.				Nativity.			
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Tolland	1,216	13	10	..	23	18	5	....	....	..	10	1	....	....	..	11	1	1	14	9	..	23	17	3	3
Andover	461	4	2	..	6	5	1	....	....	..	2	...	....	....	..	2	..	..	3	4	..	7	6	1	..
Bolton	576	5	5	..	10	7	3	....	....	..	6	...	....	2	..	8	..	1	6	4	..	10	9	1	..
Columbia	891	5	6	..	11	8	3	....	....	..	8	...	....	....	..	8	..	1	11	6	..	17	14	3	..
Coventry	2,057	24	16	..	40	25	12	1	2	..	15	4	....	....	2	21	..	2	13	12	..	25	16	7	2
Ellington	1,452	5	12	..	17	11	5	....	1	..	8	...	....	1	..	9	1	2	4	9	..	13	10	3	..
Hebron	1,279	9	9	..	18	12	2	1	3	..	6	...	....	....	..	6	..	..	6	6	..	12	12	..	..
Mansfield	2,401	18	19	1	38	31	6	....	....	1	15	...	1	....	..	16	..	..	12	9	1	22	20	2	..
Somers	1,247	9	11	1	21	16	5	....	....	..	7	...	....	....	..	7	..	1	8	6	..	14	14	..	..
Stafford	3,405	38	37	..	75	39	26	2	8	..	22	1	1	3	9	36	3	7	22	19	1	42	30	8	4
Union	627	3	8	..	11	8	2	1	....	..	5	...	....	....	..	5	..	3	2	4	..	6	6	..	..
Vernon	5,446	88	96	..	184	57	106	7	14	..	21	13	5	13	1	53	3	2	57	48	..	105	79	26	..
Willington	942	11	14	..	25	16	5	2	2	..	2	...	....	....	..	2	..	..	12	9	..	21	19	2	..
Totals	22,000	232	245	2	479	253	181	14	30	1	127	19	7	19	12	184	8	20	170	145	2	317	252	56	9

RECAPITULATION BY COUNTIES.

COUNTIES.	Population in 1870.	BIRTHS.									MARRIAGES.								DEATHS.						
		Sex.				Parentage.													Sex.				Nativity.		
		Male.	Female.	Unknown.	Total.	American.	Foreign.	For. Husband, Am. Wife.	Am. Husband, For. Wife.	Unknown.	Both American.	Both Foreign.	For. Wife, Amer. Husband.	Amer. Wife, For. Husband.	Unknown.	Total.	Both non-resident.	Hus. non-resident.	Male.	Female.	Unknown.	Total.	American.	Foreign.	Unknown.
Hartford.....	109,007	1,450	1,192	14	2,656	1,247	1,066	115	184	44	608	148	55	100	8	919	40	80	950	940	10	1,900	1,425	379	96
New Haven...	121,257	2,020	1,874	6	3,900	1,489	1,916	166	288	41	663	227	73	147	..	1,110	69	51	1,284	1,276	2	2,562	2,002	538	22
New London.	66,570	774	699	21	1,494	777	628	38	27	24	337	89	39	49	..	514	9	30	647	602	21	1,270	1,000	191	79
Fairfield.....	95,276	1,239	1,064	17	2,320	993	873	74	148	232	451	88	38	55	43	675	9	58	756	687	13	1,456	1,148	164	144
Windham....	38,518	521	520	5	1,046	443	518	46	39	...	221	86	18	15	..	340	14	40	363	318	6	687	571	99	17
Litchfield.....	48,727	521	456	4	981	586	333	22	40	...	272	15	13	19	2	321	10	30	302	296	7	605	496	75	34
Middlesex.....	36,099	316	305	2	623	362	189	23	35	24	176	49	13	14	..	252	1	17	259	296	..	555	460	87	8
Tolland.....	22,000	232	245	2	479	253	181	14	30	1	127	19	7	19	12	184	8	20	170	145	2	317	252	56	9
Totals.....	537,454	7,073	6,355	71	13,499	6,150	5,704	498	791	356	2,855	721	256	418	65	4,315	160	326	4,731	4,560	61	9,352	7,354	1,589	409

TABLE

EXHIBITING THE NUMBER OF BIRTHS IN THE SEVERAL COUNTIES FOR EACH MONTH OF THE YEAR ENDING DECEMBER 31, 1878.

County.	Sex.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Hartford	Males	131	115	144	102	123	115	123	137	127	121	103	109	1,450
	Females	110	84	99	79	102	107	108	104	111	95	94	99	1,192
	Not stated	1	....	....	1	2	....	1	....	3	....	4	2	14
New Haven	Males	165	168	165	171	165	160	169	173	167	176	173	168	2,020
	Females	159	137	154	139	163	146	171	166	159	165	160	155	1,874
	Not stated	....	1	....	....	1	....	....	....	....	1	....	3	6
New London	Males	68	65	68	58	68	62	64	61	76	64	64	59	777
	Females	67	67	45	46	50	71	66	53	62	53	55	64	699
	Not stated	4	3	....	....	1	....	5	1	1	....	....	3	18
Fairfield	Males	120	81	114	103	91	86	103	108	120	97	99	117	1,239
	Females	103	72	91	89	106	67	79	97	103	92	86	79	1,064
	Not stated	....	....	2	5	1	1	2	2	2	....	2	....	17
Windham	Males	53	37	48	51	40	36	48	46	47	37	34	44	521
	Females	38	44	41	36	36	37	51	57	36	44	51	49	520
	Not stated	....	....	....	....	1	....	4	....	....	....	....	....	5
Litchfield	Males	41	41	45	55	52	38	39	56	36	52	40	26	521
	Females	56	25	43	31	39	35	44	49	38	29	30	37	456
	Not stated	1	....	....	....	....	1	....	1	....	....	....	1	4
Middlesex	Males	38	22	22	24	22	22	24	30	28	22	34	28	316
	Females	19	23	21	35	24	26	33	32	22	23	10	37	305
	Not stated	....	....	1	....	....	....	....	....	....	....	....	1	2
Tolland	Males	20	13	22	25	13	22	19	16	24	21	19	18	232
	Females	21	27	13	26	25	20	5	31	15	23	20	19	245
	Not stated	....	....	....	....	....	1	....	....	....	....	....	1	2
Total	Males	636	542	628	589	574	541	589	627	625	590	566	569	7,076
	Females	573	479	507	481	545	509	557	589	546	524	506	539	6,355
	Not stated	6	4	3	6	6	3	12	4	6	1	6	11	68
Grand Total		1215	1025	1138	1076	1125	1053	1158	1220	1177	1115	1078	1119	13,499

TABLE 2.

CAUSES OF DEATHS ARRANGED BY TOWNS AND COUNTIES.

Towns in Hartford Co.	CLASS 1.—ZYMOTIC DISEASES.																																			Total for Class 1.		
	Order 1.—Miasmatic.																							Order 2.—Enthetic.					Order 3.—Dietic.								
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyaemia.	Septicaemia.	Dysentery.	Diarrhea.	Cholera Infantum.	Intermittent Fever.	Congestive Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total.		Syphilis.	Hydrophobia.	Stricture.	Total.		Privation.	Purpura.	Alcoholism.	Intemperance.	Total.		Males.	Females.	Total.
																						M.	F.				M.	F.					M.	F.			
Hartford	1	9	9	8	21	22	2	2	..	2	..	..	8	6	49	2	..	3	..	8	2	74	80	2	1	...	2	1	1	..	..	3	3	1	79	82	161
Avon	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	1	..	4	..	4
Berlin	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	...	2	...	2	...	..	1	..	..	...	1	3	3	6
Bloomfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	..	..	..	..	...	...	...	...	...	...
Bristol	..	..	5	..	..	4	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	9	3	...	...	...	...	...	..	..	..	1	1	...	10	3	13
Burlington	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	...	1	...	...	1	..	..	..	..	..	..	2	1	3
Canton	..	2	2	2	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	1	..	5	5	...	...	...	...	...	..	..	..	..	..	...	5	5	10
East Granby	..	..	4	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	...	...	...	...	...	..	..	..	..	..	...	2	3	5
East Hartford	..	..	1	..	..	4	..	..	..	..	..	..	..	1	4	..	..	4	..	1	..	8	7	...	...	...	...	...	..	..	..	..	..	...	8	7	15
East Windsor	..	..	1	..	..	1	..	..	..	..	..	..	..	1	4	..	..	..	..	..	..	3	4	...	...	...	...	...	..	..	..	..	..	...	3	4	7
Enfield	..	1	4	4	1	..	3	1	..	..	..	..	..	4	9	..	..	2	..	..	1	15	15	...	...	1	1	...	..	..	..	..	..	...	16	15	31
Farmington	..	..	..	..	..	2	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	3	2	...	...	...	...	...	..	..	..	..	..	...	3	2	5
Glastonbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	...	...	...	...	...	..	..	..	..	..	...	2	..	2
Granby	..	..	10	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	4	7	...	...	...	...	...	..	..	..	..	..	...	4	7	11
Hartland	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	...	...	...	...	...	..	..	..	..	..	...	1	1	2
Manchester	..	..	..	2	1	..	1	1	..	..	..	..	..	3	7	..	..	..	..	..	..	10	5	1	...	..	1	...	..	..	..	..	..	...	11	5	16
Marlborough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	...	...	...	...	...	..	..	..	..	..	...	1	..	1
New Britain	..	23	10	1	1	2	..	..	..	..	..	..	5	1	9	2	..	1	..	..	..	29	26	...	...	...	...	...	..	..	..	..	..	...	29	26	55
Newington	..	..	2	..	..	..	..	..	..	..	..	..	..	..	3	..	..	1	..	..	..	3	3	...	...	...	...	...	..	..	..	..	..	...	3	3	6
Plainville	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	3	...	...	...	...	...	..	..	..	..	..	...	1	3	4
Rocky Hill	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	4	...	...	...	...	...	..	..	..	..	..	...	..	4	4
Simsbury	1	..	5	..	1	1	..	..	..	..	..	..	..	..	2	1	..	..	..	..	1	5	7	...	...	...	...	...	..	..	..	..	..	...	5	7	12
Southington	..	..	7	8	5	..	..	1	..	..	..	..	..	..	4	..	..	..	..	..	..	16	9	...	...	...	...	...	..	..	..	..	..	...	16	9	25
South Windsor	..	..	2	..	..	..	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	4	...	...	...	...	...	..	..	..	..	..	...	3	4	7
Suffield	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	3	..	...	...	1	1	...	..	..	..	..	..	...	4	..	4
West Hartford	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	1	4	...	...	...	...	...	..	..	..	..	..	...	1	4	5
Wethersfield	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	1	..	..	..	5	2	...	...	...	...	...	..	..	..	..	..	...	5	2	7
Windsor	..	..	1	..	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	3	3	...	...	...	...	...	..	..	..	..	..	...	3	3	6
Windsor Locks	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	1	4	...	...	...	...	...	..	..	..	..	..	...	1	4	5
Totals	2	41	66	25	40	39	11	8	..	2	..	..	14	18	104	13	..	13	..	14	6	213	203	3	4	2	7	2	2	1	..	4	5	2	225	207	432

CLASS II.—CONSTITUTIONAL DISEASES.

Towns in Hartford Co.	Order 1.—Diathetic. Dropsy and Anæmia.	Cancer.	Mortification.	Total. M.	Total. F.	Order 2.—Tubercular. Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total. M.	Total. F.	Total for Class II. Males.	Females.	Total.
HARTFORD	4	23	..	10	7	4	..	130	..	..	..	67	67	77	84	161
Avon	..	1	..	..	1	..	..	2	..	..	..	..	2	..	3	3
Berlin	..	1	1	2	..	..	..	5	2	..	..	7	..	9	..	9
Bloomfield	..	..	..	..	..	..	..	3	..	..	..	..	3	..	3	3
Bristol	..	4	..	..	4	..	..	16	..	..	..	6	10	6	14	20
Burlington	..	..	..	..	..	..	..	4	..	..	..	4	..	4	..	4
Canton	..	..	..	..	..	..	..	4	..	..	..	2	2	2	2	4
East Granby	..	..	..	..	..	..	..	4	..	..	..	..	4	..	4	4
East Hartford	1	2	..	1	2	..	..	6	..	..	..	5	1	6	3	9
East Windsor	..	..	..	..	..	..	..	1	1	..	..	2	..	2	..	2
Enfield	..	2	..	1	1	..	..	23	..	..	..	5	18	6	19	25
Farmington	..	1	..	..	1	..	1	4	..	..	..	3	2	3	3	6
Glastonbury	1	6	..	5	2	..	..	6	..	..	..	3	3	8	5	13
Granby	..	..	..	..	..	..	..	2	..	..	..	1	1	1	1	2
Hartland	2	..	..	2	..	..	..	1	..	..	..	..	1	2	1	3
Manchester	1	..	..	1	..	2	..	10	..	..	..	5	7	6	7	13
Marlborough	..	..	..	..	..	..	..	2	..	..	..	..	2	..	2	2
New Britain	2	4	2	5	3	..	1	20	1	..	..	11	11	16	14	30
Newington	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1
Plainville	..	..	..	..	..	1	..	2	..	..	..	1	2	1	2	3
Rocky Hill	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Simsbury	1	1	..	1	1	..	..	3	1	..	..	3	1	4	2	6
Southington	1	1	..	1	1	..	1	15	..	..	..	10	6	11	7	18
South Windsor	..	..	..	..	..	..	1	2	..	..	..	2	1	2	1	3
Suffield	2	..	..	1	1	..	2	2	2	..	..	3	3	4	4	8
West Hartford	..	1	..	..	1	..	..	5	..	..	..	2	3	2	4	6
Wethersfield	..	..	1	1	..	..	..	7	..	..	..	4	3	5	3	8
Windsor	..	2	..	..	2	..	1	3	..	..	..	1	3	1	5	6
Windsor Locks	2	1	..	2	1	..	1	6	..	..	..	3	4	5	5	10
Totals	17	51	4	33	39	7	8	289	7	..	..	150	161	183	200	383

CLASS III.—LOCAL DISEASES.

Towns in Hartford Co.	Order 1.—Nervous System. Apoplexy.	Paralysis.	Insanity.	Chorea.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total. M.	Total. F.	Order 2.—Organs of Circulation. Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total. M.	Total. F.	Order 3.—Respiratory System. Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total. M.	Total. F.
HARTFORD	11	8	4	1	3	1	9	13	38	..	48	40	1	..	33	..	17	17	..	1	..	58	..	7	36	30
Avon	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	1	..	1	..	..	1	1
Berlin	1	3	..	..	..	1	..	..	..	..	3	2	..	..	1	..	1	..	..	..	..	1	..	..	1	1
Bloomfield	5	..	..	..	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	2	..	..	1	1
Bristol	2	2	1	..	..	..	..	4	..	..	5	4	..	..	6	..	4	2	..	..	..	..	..	1	..	1
Burlington	..	3	..	..	..	..	..	..	..	..	2	1	..	..	..	1	1	..	..	..	..	..	..	1	..	1
Canton	2	..	..	..	..	..	..	..	1	..	2	1	..	..	..	..	..	..	..	1	..	2	..	2	4	1
East Granby	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..
East Hartford	3	3	..	..	..	..	3	1	..	..	3	7	..	..	1	..	..	1	..	..	..	..	..	3	1	2
East Windsor	..	1	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enfield	..	1	..	..	..	..	..	..	3	..	3	1	..	..	2	..	2	..	..	1	..	1	..	..	2	..
Farmington	3	..	1	..	..	..	2	..	2	..	4	4	..	..	1	..	..	1	..	1	..	2	..	..	1	2
Glastonbury	7	..	1	..	..	..	..	..	1	..	3	6	..	..	4	..	2	2	..	1	..	1	..	..	1	1
Granby	1	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	1	4	..	..	2	3
Hartland	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manchester	3	4	..	..	..	..	..	..	..	..	5	2	..	..	2	..	1	1	..	..	..	7	..	..	5	3
Marlborough	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Britain	3	1	..	..	..	..	5	..	3	..	6	6	..	..	2	..	..	2	..	1	1	9	..	..	5	6
Newington	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	1	1
Plainville	3	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	1	..	2	..	..	2	1
Rocky Hill	..	2	..	..	1	..	..	..	..	..	..	3	..	..	1	..	1	..	..	..	..	1	..	..	..	1
Simsbury	5	1	1	..	..	..	..	..	1	..	5	3	..	..	2	..	1	1	..	..	..	2	..	..	1	1
Southington	1	1	1	..	..	..	4	..	..	..	2	5	..	..	6	..	5	1	..	..	..	9	..	..	6	3
South Windsor	..	..	1	..	..	..	1	..	..	..	1	1	..	..	1	..	..	1	..	..	..	2	..	..	..	2
Suffield	3	3	..	..	..	..	2	..	2	..	5	5	..	..	2	..	1	1	..	..	..	1	..	..	1	..
West Hartford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	2	..	..	1	1
Wethersfield	1	..	..	..	..	..	1	1	..	..	2	1	..	..	1	..	..	1	..	1	..	1	..	2	2	2
Windsor	..	2	..	..	..	..	..	1	..	..	3	..	..	..	..	..	..	..	..	..	..	1	..	2	1	2
Windsor Locks	1	..	..	..	..	1	..	1	2	..	3	2	..	..	2	..	..	2	..	..	..	3	..	1	2	2
Totals	57	37	10	1	4	3	29	22	53	..	114	102	1	..	70	1	37	35	..	9	2	114	..	20	76	69

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Hartford Co.	Order 4.—Digestive Organs.															Order 5.—Urinary Organs.									Order 6.—Generative Organs.				Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.				Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total.		Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total.			Ovarian Dropsy.	Ovarian tumor.	Disease of Uterus.	Total.	Joint Diseases.	Caries.	Necrosis.	Total.			Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total.			
													M.	F.									M.	F.								M.	F.					M.	F.	Males.	Females.	Total.
Hartford	..	1	2	2	2	..	..	..	11	..	..	5	..	11	12	..	13	2	..	..	5	..	..	14	6	..	..	..	..	..	..	..	..	..	..	..	5	..	4	1	130	106	236
Avon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	5
Berlin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	4	4	8
Bloomfield	2	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4	8
Bristol	..	..	..	..	..	..	2	..	..	..	..	2	..	1	3	..	..	1	..	..	1	..	..	2	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	12	11	23
Burlington	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	5	4	9
Canton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	7	2	9
East Granby	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
East Hartford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	11	15
East Windsor	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Enfield	..	..	..	..	..	..	..	..	3	..	..	..	..	1	2	..	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	4	13
Farmington	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	3	1	..	..	..	..	..	2	2	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	7	11	18
Glastonbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	9	15
Granby	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	2	1	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	5	13
Hartland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Manchester	1	..	..	..	1	..	..	..	..	..	..	..	1	1	2	..	..	..	1	..	2	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	8	23
Marlborough	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
New Britain	..	..	1	..	..	..	..	..	..	..	..	3	..	1	3	..	1	..	..	1	2	..	..	3	1	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	15	20	35
Newington	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5
Plainville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6
Rocky Hill	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	7
Simsbury	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	6	14
Southington	1	..	1	..	1	..	..	..	..	..	..	..	1	2	2	..	..	1	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	12	28
South Windsor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	5
Suffield	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	6	14
West Hartford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	4	2	6
Wethersfield	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	5	5	10
Windsor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7
Windsor Locks	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	5	7	12
Totals	4	2	7	2	4	..	2	..	14	..	..	14	2	20	31	..	25	8	1	5	15	..	..	38	16	3	1	..	4	2	..	..	2	..	1	1	7	..	5	4	292	261	553

Towns in Hartford Co.	CLASS IV.—DEVELOPMENTAL DISEASES.																CLASS V.—VIOLENT DEATHS.																		Grand Total for All Classes.		
	Order 1.—Of Children.								Order 2.—Of Women.			Order 3.—Of Old People.		Order 4.—Of Nutrition.		Total for Class IV.				Order 1.—Accident or Negligence.										Orders 2, 3, 4.				Sudden.		Sudden Cause, unascertained.		Total for Class V.					
	Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total.		Metritis.	Childbirth.	Total.	Old Age.		Atrophy and Debility.		Males.	Females.	Total.	Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total.		Order 3—Homicide.		Order 4—Suicide.									
							M.	F.				M.	F.	M.	F.	Males.	Females.	Total.									M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	Males.	Females.	Total.
Hartford	16	11	..	..	..	..	16	11	..	11	11	13	25	11	14	40	61	101	..	3	1	..	8	..	..	1	13	22	4	..	..	1	2	..	..	40	28	63	34	97	389	367	756
Avon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	2	6	8	14
Berlin	2	..	..	..	..	..	1	1	..	..	..	1	..	..	..	2	1	3	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	19	8	27
Bloomfield	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	1	2	1	3	7	9	16
Bristol	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	2	3	5	..	..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	3	..	3	33	31	64
Burlington	..	..	..	..	..	..	..	..	..	..	..	3	2	..	..	3	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	7	21
Canton	3	..	..	..	..	..	2	1	..	..	..	2	2	..	..	4	3	7	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	2	1	3	20	13	33
East Granby	..	1	..	..	..	..	..	..	..	..	..	1	2	..	..	2	2	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	9	16
East Hartford	..	..	..	..	..	..	1	..	..	..	..	2	1	1	1	3	2	5	..	..	1	..	..	1	..	..	..	1	1	..	..	1	..	..	..	5	3	7	4	11	28	27	55
East Windsor	2	2	..	..	..	..	2	2	..	2	2	5	2	..	..	7	6	13	..	..	..	..	..	1	..	1	1	1	1	..	..	..	..	..	..	..	1	1	2	3	14	15	29
Enfield	3	..	..	..	1	..	3	1	..	5	5	6	1	..	..	9	7	16	..	..	1	..	..	2	..	..	..	1	2	..	..	..	..	..	..	6	32	7	34	41	47	79	126
Farmington	..	..	..	..	..	..	..	..	..	2	2	1	2	2	..	3	4	7	..	..	..	..	1	1	..	..	..	1	1	1	..	..	..	1	1	2	3	5	5	10	21	25	46
Glastonbury	..	..	..	..	..	..	..	..	..	1	1	2	6	..	..	2	7	0	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	2	3	2	5	21	23	44
Granby	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	2	2	4	15	17	32
Hartland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6
Manchester	..	..	1	..	1	..	2	..	..	1	1	..	1	..	..	2	2	4	..	..	..	..	1	1	..	..	..	2	..	..	..	1	2	..	2	2	4	5	9	38	27	65
Marlborough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	1	2	3	2	5	7
New Britain	2	4	1	..	..	..	5	2	..	..	..	1	4	..	..	9	6	12	1	1	..	..	1	..	..	1	3	1	..	..	..	..	..	..	31	28	34	29	63	100	95	195
Newington	1	..	..	..	..	..	1	..	..	..	..	1	2	..	..	2	2	4	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	2	..	2	10	8	18
Plainville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	7	7	14
Rocky Hill	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	1	2	11	13
Simsbury	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2	..	..	1	..	..	..	12	1	..	7	7	..	..	..	..	..	..	1	1	8	8	16	27	23	50
Southington	..	3	..	..	..	..	1	2	..	..	..	1	3	..	1	2	6	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	1	2	3	46	36	82
South Windsor	..	2	..	..	..	..	2	..	..	..	..	..	3	..	..	2	3	5	..	..	..	..	..	2	..	..	..	2	..	..	1	..	..	..	..	..	1	2	3	9	14	23
Suffield	1	..	..	..	..	..	1	..	..	..	..	1	1	..	..	2	1	3	..	..	..	..	..	2	..	1	1	2	..	..	..	..	..	..	..	..	1	2	3	19	13	32
West Hartford	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	2	5	7	10	15	25
Wethersfield	1	..	..	..	..	..	..	1	..	..	..	..	3	..	1	..	5	5	2	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	1	1	3	3	5	17	18	35
Windsor	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	3	3	..	1	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	2	2	4	11	15	26
Windsor Locks	..	1	..	..	..	..	..	1	..	1	1	..	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	2	12	18	30
Totals	31	24	2	..	3	..	37	23	..	23	23	44	64	16	20	97	103	227	4	7	6	..	14	14	13	3	17	50	28	1	..	4	4	5	2	102	114	157	148	305	954	946	1,900

CLASS I.—ZYMOTIC DISEASES.

Towns in New Haven Co.	Order 1.—Miasmatic.																					Order 2.—Enthetic.					Order 3.—Dietic.						Total for Class I.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Dysentery.	Diarrhœa.	Cholera Infantum.	Intermittent Fever.	Congestive Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total. M.	Total. F.	Syphilis.	Hydrophobia.	Stricture.	Total. M.	Total. F.	Privation.	Purpura.	Alcoholism.	Intemperance.	Total. M.	Total. F.	Males.	Females.	Total.
New Haven	1	29	55	42	3	13	8	4	1	1	..	..	3	3	53	3	..	6	2	2	3	110	122	2	...	...	1	1	1	1	..	1	...	3	111	126	237
Beacon Falls	...	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Bethany	...	...	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Branford	..	3	...	...	..	1	1	1	..	..	..	..	..	..	1	..	..	4	1	..	..	5	7	...	...	...	...	...	...	...	...	...	...	...	5	7	12
Cheshire	..	3	...	...	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	2	...	...	...	...	...	...	...	1	1	...	...	4	2	6
Derby	..	49	1	2	..	1	..	..	..	..	..	1	2	1	7	..	1	9	..	1	4	38	41	...	...	...	...	...	1	..	..	...	1	38	42	80
East Haven	..	...	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	...	...	...	...	...	...	...	...	...	...	3	1	4
Guilford	..	1	...	..	..	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	2	...	...	...	...	...	...	...	...	...	...	3	2	5
Hamden	..	..	2	..	..	1	..	..	..	..	..	..	..	..	1	..	..	12	1	..	..	9	8	...	...	...	...	...	...	...	...	...	...	9	8	17
Madison	1	...	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	...	...	...	...	...	...	...	...	...	...	3	..	3
Meriden	..	28	23	21	8	8	3	2	1	..	..	..	4	2	25	3	..	2	1	..	..	68	62	...	...	1	1	...	...	...	...	1	1	...	70	62	132
Middlebury	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	...	...	...	...	...	...	...	...	...	...	1	2	3
Milford	..	..	12	2	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	3	10	9	...	...	...	...	...	...	...	...	...	...	10	9	19
Naugatuck	..	5	...	1	..	4	..	..	..	..	..	..	..	..	7	..	..	..	..	..	..	10	7	...	...	...	...	...	...	...	...	...	...	10	7	17
North Branford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	...	..	...	...	...	...	...	...	...	...	...	1	...	1
North Haven	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	..	3	1	..	1	3	4	...	...	...	...	...	...	...	...	...	...	3	4	7
Orange	..	..	..	..	1	..	..	..	..	..	..	..	1	6	..	..	..	3	..	..	..	4	7	...	...	...	...	...	...	...	...	...	...	4	7	11
Oxford	..	3	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	3	3	...	...	...	...	...	...	...	...	...	...	3	3	6
Prospect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Seymour	..	1	1	..	..	4	..	1	..	..	..	..	1	3	..	..	..	..	..	..	..	6	5	...	...	...	...	...	...	...	...	...	...	6	5	11
Southbury	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	3	..	...	1	...	1	...	...	...	...	...	...	...	4	..	4
Wallingford	..	5	1	1	1	1	..	..	..	..	..	..	1	2	1	..	..	4	..	1	..	11	7	...	...	...	...	...	...	...	...	1	1	...	12	7	19
Waterbury	1	6	3	..	..	14	4	1	..	..	..	..	2	..	14	..	..	3	..	..	..	27	21	...	...	...	...	...	...	...	...	1	1	...	28	21	49
Wolcott	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Woodbridge	..	..	..	..	..	1	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4	...	...	...	...	...	...	...	...	...	...	...	...	4	4
Totals	3	133	103	70	70	55	21	8	2	1	..	1	11	11	120	11	1	50	7	5	11	322	316	2	1	1	3	1	2	1	..	5	4	4	329	321	650

Towns in New Haven Co.	CLASS II.—CONSTITUTIONAL DISEASES.																CLASS III.—LOCAL DISEASES.																											
	Order 1.—Diathetic.					Order 2.—Tubercular.								Total for Class II.			Order 1.—Nervous System.										Order 2.—Organs of Circulation.						Order 3.—Respiratory System.										
	Dropsy, Anæmia.	Cancer.	Mortification.	Total.		Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total.		Males.	Females.	Total.	Apoplexy.	Paralysis.	Insanity.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total.		Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total.		Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total.			
				M.	F.							M.	F.													M.	F.													M.	F.
New Haven...	7	26	..	9	24	3	29	166	4	..	..	88	114	97	138	235	32	29	3	2	3	61	44	24	..	107	91	1	..	63	..	46	18	4	25	..	61	..	12	55	47		
Beacon Falls...	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Bethany.....	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Branford.....	1	..	..	..	1	1	..	6	..	..	..	4	3	4	4	8	..	1	..	..	..	1	3	4	..	3	6	..	..	..	..	..	..	1	..	..	3	..	3	4	3		
Cheshire.....	1	..	..	..	1	..	..	4	..	..	..	..	4	..	5	5	1	2	..	..	..	..	..	1	..	2	2	..	..	2	..	..	2	..	1	..	1	..	..	1	1		
Derby.....	2	6	..	2	6	1	4	17	2	1	..	14	11	16	17	33	3	2	..	1	1	11	1	1	..	9	11	..	..	6	..	..	6	2	..	1	4	..	..	3	4		
East Haven....	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1	2	2	..	1	..	1	.	1	..	4	3	..	..	3	..	3	..	.	.	.	1	..	1	1	1		
Guilford.....	1	..	..	1	..	..	..	6	..	..	1	1	6	2	6	8	3	4	..	..	..	1	..	2	..	5	5	..	..	..	..	..	..	.	.	.	.	..	2	1	1		
Hamden.....	2	1	..	1	2	1	1	3	..	..	..	3	2	4	4	8	2	..	..	..	..	3	..	2	..	5	2	..	..	2	..	1	1	.	.	.	2	..	2	2	2		
Madison.....	1	..	..	..	1	1	.	6	1	..	..	3	5	3	6	9	..	2	..	..	..	1	..	..	..	1	2	..	..	..	..	..	..	.	.	.	.	..	..	..	..		
Meriden.....	10	4	..	6	8	1	6	38	4	..	..	23	26	29	34	63	5	7	..	..	1	12	13	9	..	25	22	..	1	4	..	2	3	1	4	..	12	..	5	8	14		
Middlebury....	1	1	..	1	1	..	..	1	..	..	..	1	..	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	1		
Milford.....	2	3	..	1	4	..	..	15	..	..	..	7	8	8	12	20	..	..	..	..	..	..	..	1	..	..	1	1	2	5	..	3	5	..	..	..	1	..	2	1	2		
Naugatuck.....	1	2	..	2	1	..	..	7	..	..	..	2	5	4	6	10	1	..	..	..	..	4	..	3	..	6	2	..	..	1	..	..	1	..	..	1	..	..	..	..	1		
North Branford.	..	1	..	..	1	..	..	1	..	..	..	..	1	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..		
North Haven...	..	1	2	2	1	..	3	1	..	..	..	..	4	3	4	7	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	4	..	2	..	3		
Orange.....	4	2	..	1	5	..	..	2	..	..	..	1	1	2	6	8	..	3	..	..	..	..	..	..	..	1	2	..	..	4	..	1	3	..	1	..	1	..	2	5	2		
Oxford.....	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1	3	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Prospect.....	..	..	..	..	..	..	..	3	..	..	..	1	2	1	2	3	..	..	..	..	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Seymour.....	2	3	..	..	5	.	1	6	..	..	..	5	2	5	7	12	2	..	..	..	..	..	..	2	..	3	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..		
Southbury.....	..	2	..	1	1	..	..	..	..	..	..	..	..	1	1	2	1	..	..	..	..	1	..	1	..	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1		
Wallingford....	2	4	1	3	4	..	..	6	..	..	..	1	5	4	9	13	1	3	..	..	..	1	..	..	..	4	1	..	..	1	..	1	..	..	..	..	5	..	..	3	1		
Waterbury.....	5	7	..	5	7	..	..	37	1	..	..	21	17	26	24	50	8	7	..	..	..	16	12	9	..	30	22	..	..	13	..	8	5	..	1	..	11	..	1	4	9		
Wolcott.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1		
Woodbridge....	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	2	..	..	..	2		
Totals....	43	64	3	36	74	8	44	327	12	1	1	176	220	213	293	506	65	64	3	4	5	115	73	61	..	213	177	2	3	108	..	68	45	8	32	2	112	..	32	89	96		

CLASS III.—LOCAL DISEASES—Concluded.

Towns in New Haven Co.	Order 4.—Digestive Organs.																			Order 4.—Urinary Organs.								Order 6.—Generative Organs.			Order 7.—Organs of Locomotion.			Order 8.—Integumentary System.				Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Stric. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total. M.	Total. F.	Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total. M.	Total. F.	Ovarian Dropsy.	Ovarian Tumor.	Disease of Uterus.	Total.	Joint Disease.	Caries.	Necrosis.	Total. M.	Total. F.	Phlegmon.	Ulcer.	Tumor.	Skin Disease.	Total. M.	Total. F.	Males.	Females.	Total.
New Haven	10	6	10	2	3	4	..	..	2	5	4	8	..	23	31	2	18	2	..	2	10	..	..	21	13	2	..	1	3	1	..	..	..	1	2	..	..	1	1	253	205	458
Beacon Falls	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bethany	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Branford	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	9	16
Cheshire	..	..	..	..	..	..	..	..	1	..	..	2	..	2	6	1	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5	10
Derby	1	1	2	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	28	42
East Haven	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	4	12
Guilford	1	2	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	8	15
Hamden	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	5	13
Madison	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	3	3	6
Meriden	1	1	..	..	1	..	..	..	4	..	..	6	..	9	4	1	5	2	..	..	2	..	..	4	6	..	..	..	..	..	..	..	..	..	2	2	..	..	50	49	99
Middlebury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Milford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	4	8	12
Naugatuck	..	..	..	..	..	..	..	..	..	..	..	2	..	1	1	..	1	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	8	6	14
North Branford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
North Haven	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	5
Orange	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	8	16
Oxford	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6
Prospect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Seymour	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	5	2	7
Southbury	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Wallingford	2	..	..	..	..	..	..	1	1	..	..	..	..	3	1	..	1	..	..	..	..	..	2	3	..	..	1	1	..	..	..	..	..	..	1	..	..	..	1	14	5	19
Waterbury	2	..	2	1	2	..	..	..	..	..	..	2	..	3	6	..	5	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	48	44	92
Wolcott	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Woodbridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Totals	17	13	14	3	7	6	..	1	8	5	4	23	..	47	54	4	31	5	1	2	13	..	3	35	24	3	1	2	6	2	..	..	..	1	1	2	3	2	459	402	861

Towns in New Haven Co.	CLASS IV.—DEVELOPMENTAL DISEASES.																CLASS V.—VIOLENT DEATHS.																						Grand Total for All Classes.		
	Order 1.—Of Children.							Order 2.—Of Women.			Order 3.—Of Old People.		Order 4.—Of Nutrition.		Total for Class IV.			Order 1.—Accident or Negligence.									Orders 2, 3, 4.				Sudden.		Sudden Cause, unascertained.		Total for Class V.										
	Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total.		Metritis.	Childbirth.	Total.	Old Age.		Atrophy and Debility.		Males.	Females.	Total.	Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total.		Order 3—Homicide.	Order 4—Suicide.													
							M.	F.				M.	F.	M.	F.	Males.	Females.	Total.										M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	Males.	Females.	Total.
New Haven	64	37	..	..	5	5	69	42	..	1	1	13	26	4	8	86	80	166	18	6	7	2	7	..	..	2	..	32	10	..	..	6	3	..	..	..	6	38	19	57	585	568	1153
Beacon Falls	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	6	6
Bethany	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5
Branford	5	3	..	..	1	..	5	4	..	1	1	..	1	..	1	6	6	12	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	1	1	22	27	49
Cheshire	5	1	..	..	..	..	4	2	..	..	..	1	3	..	..	5	5	10	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	2	2	2	4	15	30	35
Derby	13	3	..	..	..	..	5	11	..	..	..	1	4	..	2	6	14	20	..	..	..	..	..	..	..	1	2	2	1	..	1	..	..	..	1	..	4	1	5	18	100	178
East Haven	5	1	..	..	..	..	4	2	..	..	..	2	4	..	..	6	6	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	11	29
Guilford	2	..	..	..	..	..	1	1	..	..	..	4	3	..	..	5	4	9	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	18	20	38
Hamden	2	..	1	..	..	..	2	1	..	1	1	1	1	..	..	3	3	6	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	..	2	2	25	20	45
Madison	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	4	4	..	..	..	..	2	..	..	..	1	3	..	..	1	..	..	..	..	..	3	1	4	12	14	26
Meriden	14	12	..	..	..	2	20	8	..	1	1	2	4	2	3	24	16	40	1	..	1	2	3	..	..	1	2	4	6	..	1	..	1	3	1	9	12	16	21	37	189	178	367
Middlebury	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	2	1	3	6	6	12
Milford	2	..	1	..	..	..	2	1	..	..	..	2	3	..	..	4	4	8	..	..	2	..	1	..	2	..	..	3	2	..	..	..	..	1	2	2	5	5	10	31	38	69
Naugatuck	6	3	..	..	..	..	4	5	..	..	..	4	3	..	..	8	8	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2	30	29	59
North Branford	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	6	4	10
North Haven	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	..	1	..	1	..	..	..	2	1	3	7	14	21
Orange	2	..	..	..	1	..	1	2	..	..	..	..	1	..	1	1	4	5	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	1	..	2	..	3	1	4	19	25	44
Oxford	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	2	1	3	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	2	..	2	10	8	18
Prospect	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7
Seymour	3	..	..	..	..	..	3	..	..	..	..	1	..	..	..	4	..	4	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	1	1	2	19	18	37
Southbury	2	..	..	..	..	..	..	2	..	..	..	2	1	..	..	2	3	5	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	2	..	2	12	5	17
Wallingford	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	2	..	..	..	1	..	..	..	..	30	16	15	..	..	..	1	..	..	..	17	15	32	47	38	85
Waterbury	11	7	..	..	1	..	6	13	..	1	1	5	6	..	..	11	20	31	..	..	..	..	2	..	..	..	2	1	3	..	..	..	..	..	..	1	1	4	5	121	113	234
Wolcott	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5
Woodbridge	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	..	..	1	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	2	2	11	13
Totals	136	67	2	..	8	8	127	94	..	5	5	46	67	8	18	180	185	365	19	6	11	5	15	3	4	6	40	68	41	3	2	9	8	3	2	16	28	107	73	180	1293	1269	2562

CLASS I.—ZYMOTIC DISEASES.

Towns in New London Co.	Order 1.—Miasmatic.																						Order 2.—Enthetic.					Order 3.—Dietic.					Total for Class 1.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Dysentery.	Diarrhœa.	Cholera Infantum.	Intermittent Fever.	Congestive Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total. M.	Total. F.	Syphilis.	Hydrophobia.	Stricture.	Total. M.	Total. F.	Privation.	Purpura.	Alcoholism.	Intemperance.	Total. M.	Total. F.	Males.	Females.	Total.
New London	...	...	19	4	...	6	...	...	...	...	...	...	1	...	6	....	..	....	..	1	....	18	19	...	...	...	...	...	4	...	...	1	3	2	21	21	42
Norwich	4	1	21	9	...	12	3	1	...	...	...	...	2	5	46	....	..	.....	..	1	2	60	47	...	...	...	...	...	...	...	...	1	1	...	61	47	108
Bozrah	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	....	..	.....	..	...	....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Colchester	...	...	20	2	...	2	...	...	...	...	...	...	...	...	...	....	..	.....	..	...	1	11	14	...	...	...	...	...	...	...	...	...	...	...	11	14	25
East Lyme	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	....	..	.....	..	...	....	1	3	...	...	...	...	...	...	...	...	...	...	...	1	3	4
Franklin	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	....	..	.....	..	...	....	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
Griswold	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	....	..	.....	..	...	....	2	1	...	...	...	...	...	...	...	...	...	...	...	2	1	3
Groton	...	...	...	...	...	1	2	...	...	...	...	...	1	1	2	....	..	1	..	...	....	6	2	...	...	...	...	...	...	...	...	...	...	...	6	2	8
Lebanon	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	....	..	.....	..	...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	1	3	4
Ledyard	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	..	.....	..	...	....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lisbon	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	....	..	.....	..	...	....	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1
Lyme	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	....	..	.....	..	...	....	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Montville	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	....	..	.....	..	...	....	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
No. Stonington	...	1	19	...	...	1	...	...	...	...	...	...	...	1	...	....	..	.....	..	1	1	14	10	...	...	...	...	...	...	...	...	...	...	...	14	10	24
Old Lyme	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	..	.....	..	...	....	2	...	1	...	...	...	...	...	...	...	...	...	...	3	...	3
Preston	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	....	..	.....	..	...	....	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Salem	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	..	.....	..	...	....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sprague	1	...	4	...	...	...	...	...	...	...	...	...	...	...	5	....	..	1	..	...	....	6	5	...	...	...	...	...	...	...	...	1	1	...	7	5	12
Stonington	...	...	12	1	...	3	1	...	...	...	...	...	1	1	1	....	..	.....	..	...	1	12	9	...	...	...	...	...	...	...	...	...	...	...	12	9	21
Waterford	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	....	..	.....	..	...	....	3	1	...	...	...	...	...	...	...	...	...	...	...	3	1	4
Totals	5	3	98	18	..	30	9	1	..	..	..	..	7	11	64	1	..	2	..	3	6	140	118	1	...	...	1	...	4	...	...	3	5	2	146	120	266

Towns in New London Co.	CLASS II.—CONSTITUTIONAL DISEASES.															CLASS III.—LOCAL DISEASES.																											
	Order 1.—Diathetic.					Order 2.—Tubercular.								Total for Class II.			Order 1.—Nervous System.											Order 2.—Organs of Circulation.					Order 3.—Respiratory System.									
	Dropsy and Anæmia.	Cancer.	Mortification.	Total.		Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total.		Males.	Females.	Total.	Apoplexy.	Paralysis.	Insanity.	Chorea.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total.		Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total.		Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total.	
				M.	F.							M.	F.														M.	F.					M.	F.						M.	F.
New London	4	9	..	5	8	3	..	31	1	..	..	14	21	19	29	48	3	4	2	..	..	..	7	..	4	1	14	7	..	..	14	..	11	3	..	1	..	..	1	5	3	4
Norwich	3	8	..	7	4	4	..	94	13	..	..	47	64	54	68	122	9	27	1	..	2	..	19	9	2	..	40	29	..	6	11	..	10	7	..	..	..	32	..	1	1	16
Bozrah	..	1	..	..	1	..	..	1	..	..	..	..	1	..	2	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Colchester	1	3	..	1	3	..	..	12	..	..	..	5	7	6	10	16	1	..	..	..	1	..	..	..	..	..	2	..	..	..	3	..	2	1	..	1	..	3	..	..	..	3
East Lyme	..	..	..	..	..	..	..	5	..	..	..	2	3	2	3	5	1	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Franklin	1	..	..	1	..	..	..	1	..	..	..	..	1	1	1	2	2	1	..	..	..	..	..	..	..	..	2	1	..	..	1	..	1	..	..	..	..	..	..	1	1	..
Griswold	..	..	..	..	..	..	..	5	1	..	..	4	2	4	2	6	1	4	1	..	..	..	..	..	..	..	5	1	..	..	1	..	1	..	..	..	..	1	..	..	..	1
Groton	3	3	..	4	2	..	..	10	..	..	..	5	5	9	7	16	..	3	1	..	1	..	1	..	2	..	5	3	..	..	4	..	2	2	..	1	..	4	..	..	2	3
Lebanon	..	2	..	..	2	..	..	2	..	..	..	2	..	2	2	4	..	2	..	..	..	..	..	..	1	..	1	2	..	..	3	..	1	2	..	..	..	2	..	..	..	2
Ledyard	..	2	..	1	1	..	..	3	..	..	..	2	1	3	2	5	4	2	1	..	..	..	..	..	2	..	4	5	..	..	1	..	..	1	..	..	..	4	..	..	..	4
Lisbon	..	2	..	..	2	..	..	4	..	..	..	2	2	2	4	6	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1
Lyme	..	1	1	1	1	..	..	1	..	..	..	..	1	1	2	3	1	..	..	..	..	3	1	..	..	..	3	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Montville	..	..	..	..	..	..	..	3	..	..	..	1	2	1	2	3	2	..	1	..	..	..	..	..	..	..	3	..	..	..	2	..	1	1	..	1	..	2	..	..	..	3
No. Stonington	..	1	..	..	1	..	..	6	..	..	..	3	3	3	4	7	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Old Lyme	..	1	..	1	..	..	..	1	..	..	..	1	..	2	..	2	1	1	..	..	..	..	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..
Preston	1	..	..	1	..	..	..	7	..	..	..	3	4	4	4	8	..	2	1	..	..	..	1	..	1	..	4	1	..	..	5	..	1	4	..	..	..	..	..	..	..	..
Salem	..	1	..	..	1	..	..	1	..	..	..	..	1	..	2	2	..	..	1	..	..	..	..	..	..	..	1	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..
Sprague	2	..	..	2	..	1	..	12	..	..	..	6	7	8	7	15	..	2	..	..	..	..	1	..	3	..	3	3	..	..	3	..	3	..	1	..	..	3	..	1	1	4
Stonington	2	4	..	2	4	..	..	7	1	..	..	5	3	7	7	14	..	2	..	..	1	..	2	1	1	..	5	2	1	..	5	..	2	4	..	1	..	6	..	..	4	3
Waterford	..	..	..	..	..	..	..	3	..	..	..	1	2	1	2	3	..	3	..	..	..	..	..	..	1	..	1	3	..	..	1	..	1	..	..	..	..	..	..	..	..	..
Totals	17	38	1	26	30	8	..	209	16	..	..	102	131	129	160	289	27	53	9	..	5	..	34	12	18	2	94	60	1	6	57	..	39	25	1	5	..	60	1	9	31	45

CLASS III.—LOCAL DISEASES—Concluded.

Towns in New London Co.	Order 4.—Digestive Organs.														Order 5.—Urinary Organs.										Order 6.—Generative Organs.				Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.				Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total. M.	Total. F.	Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total. M.	Total. F.	Ovarian Dropsy.	Ovarian Tumor.	Disease of Uterus.	Total.	Joint Diseases.	Caries.	Necrosis.	Total. M.	Total. F.	Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total. M.	Total. F.	Males.	Females.	Total.
New London	..	1	..	1	..	..	..	..	2	2	..	..	..	2	4	1	..	..	..	..	5	..	..	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	20	54
Norwich	4	..	2	..	2	..	..	..	6	..	1	1	..	4	12	..	3	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	2	..	1	1	74	66	140
Bozrah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Colchester	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	4	12
East Lyme	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Franklin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5
Griswold	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	3	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	9	3	12
Groton	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	2	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	13	8	21
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	6	10
Ledyard	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	11	15
Lisbon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3
Lyme	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	9
Montville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	8
No. Stonington	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Old Lyme	..	..	..	..	1	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5
Preston	1	..	1	..	..	..	..	..	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	7	13
Salem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
Sprague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	7	14
Stonington	1	1	..	..	..	..	..	..	1	..	..	1	..	4	..	..	3	..	..	1	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	13	28
Waterford	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6
Totals	7	3	3	1	6	..	..	..	9	3	2	4	..	13	25	2	12	2	..	1	7	..	..	19	5	..	..	..	..	..	..	1	1	..	..	..	2	..	1	1	197	168	365

CLASS IV.—DEVELOPMENTAL DISEASES.

Towns in New London Co.	Order 1.—Of Children. Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total. M.	Total. F.	Order 2.—Of Women. Metritis.	Childbirth.	Total.	Order 3.—Of Old People. Old Age. M.	Old Age. F.	Order 4.—Of Nutrition. Atrophy and Debility. M.	Atrophy and Debility. F.	Total for Class IV. Males.	Females.	Total.
New London	4	3	1	..	..	..	4	4	..	3	3	6	8	4	5	14	20	34
Norwich	34	7	..	1	..	1	26	17	..	1	1	10	22	2	2	38	42	80
Bozrah	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	2
Colchester	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	2	1	3
East Lyme	..	..	1	..	..	..	..	1	..	..	..	2	..	..	..	2	1	3
Franklin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Griswold	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	3	3
Groton	..	5	..	..	..	..	4	1	..	..	..	3	4	1	..	8	5	13
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ledyard	..	2	..	..	..	..	2	..	..	..	..	..	2	..	..	2	2	4
Lisbon	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Lyme	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Montville	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	2	..	2
No. Stonington	..	..	..	..	..	..	..	..	..	..	..	3	4	1	1	4	5	9
Old Lyme	2	..	..	..	..	..	1	1	..	..	..	..	1	..	..	1	2	3
Preston	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2
Salem	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2
Sprague	2	..	..	1	..	..	2	1	..	..	..	..	1	..	..	2	2	4
Stonington	..	1	..	..	1	..	..	2	..	..	..	1	6	..	..	1	8	9
Waterford	..	..	..	..	..	..	..	..	..	3	3	..	..	..	..	..	3	3
Totals	43	20	2	2	1	1	42	27	..	7	7	30	52	10	10	82	96	178

CLASS V.—VIOLENT DEATHS. / **GRAND TOTAL FOR ALL CLASSES.**

Towns in New London Co.	Order 1.—Accident or Negligence. Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total. M.	Total. F.	Orders 2, 3, 4. Order 3—Homicide. M.	Homicide. F.	Order 4—Suicide. M.	Suicide. F.	Sudden. M.	Sudden. F.	Sudden Cause, unascertained. M.	Sudden Cause, unascertained. F.	Sex not stated.	Total for Class V. Males.	Females.	Total.	Grand Total for All Classes. Males.	Females.	Total.
New London	..	..	..	..	4	10	..	..	..	4	10	..	..	..	..	..	..	..	..	19	4	10	33	92	100	211
Norwich	2	1	3	2	4	..	..	..	3	12	3	..	..	3	..	1	..	23	4	2	38	7	47	265	230	497
Bozrah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	6
Colchester	..	..	..	1	..	1	..	..	..	2	..	..	..	..	..	..	..	5	1	..	7	1	8	34	30	64
East Lyme	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	..	7	6	..	9	6	15	15	16	31
Franklin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	9
Griswold	..	..	1	1	..	..	..	..	..	..	2	..	..	..	..	..	..	3	..	..	3	2	5	18	11	29
Groton	..	..	1	..	1	..	..	..	..	2	..	..	..	..	..	..	1	..	1	..	2	1	3	38	23	61
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..		1	..	1	2	3	8	13	21
Ledyard	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	9	16	25
Lisbon	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	2	1	3	6	8	14
Lyme	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	2	3	11	6	17
Montville	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	5	10	15
No. Stonington	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	3	2	..	3	3	6	26	22	48
Old Lyme	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	5	13
Preston	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	7	7	..	8	7	15	19	21	40
Salem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	4	3	7
Sprague	..	..	1	..	2	..	..	..	..	2	1	..	..	1	..	..	..	2	..	..	5	1	6	29	22	51
Stonington	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	6	9	..	7	10	17	42	47	89
Waterford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	4	..	2	4	6	9	13	22
Totals	2	1	6	4	13	13	..	..	4	26	17	..	..	5	2	4	1	59	40	21	93	58	172	647	602	1,270

CLASS I.—ZYMOTIC DISEASES.

Towns in Fairfield Co.	Order 1.—Miasmatic.																					Order 2.—Enthetic.					Order 3.—Dietic.					Total for Class I.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyaemia.	Septicaemia.	Dysentery.	Diarrhea.	Cholera Infantum.	Intermittent Fever.	Congestive Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total. M.	Total. F.	Syphilis.	Hydrophobia.	Stricture.	Total. M.	Total. F.	Privation.	Purpura.	Alcoholism.	Intemperance.	Total. M.	Total. F.	Males.	Females.	Total.
Danbury	..	..	2	2	..	2	..	..	..	..	..	..	1	..	7	..	..	..	..	1	2	9	8	..	..	..	..	..	..	..	..	..	..	..	9	8	17
Bridgeport	..	8	75	20	1	9	4	..	..	..	..	..	6	1	12	2	..	..	2	..	1	82	59	..	..	..	..	..	..	4	..	2	2	84	61	145
Bethel	..	..	1	..	..	1	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1	4	..	..	..	..	..	..	..	..	..	..	1	4	5
Brookfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Darien	..	..	3	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	3	3	..	..	..	..	..	..	..	..	..	..	3	3	6
Easton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Fairfield	..	..	..	1	..	..	1	..	..	1	..	..	..	..	1	..	..	..	1	..	1	..	6	..	..	..	..	..	..	..	..	..	..	..	6	6
Greenwich	..	2	1	..	..	2	1	..	..	..	..	..	1	..	3	2	..	..	1	..	..	6	7	..	..	..	..	..	..	..	..	..	..	6	7	13
Huntington	..	2	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	3	2	5
Monroe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Canaan	..	..	..	..	..	1	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	5	..	5
New Fairfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	2	1	3
Newtown	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1	2
Norwalk	1	1	5	4	1	5	1	1	..	..	..	..	1	1	11	1	..	3	..	1	3	27	13	1	..	..	1	..	1	..	..	1	..	29	13	42
Reading	..	..	..	1	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	1	3	4
Ridgefield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
Sherman	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Stamford	..	7	14	2	1	2	..	1	..	..	..	..	2	3	5	..	..	4	..	5	3	24	25	..	..	..	..	..	..	..	..	1	1	25	25	50
Stratford	..	..	1	2	..	..	1	1	..	..	..	..	..	..	1	1	..	..	..	1	..	3	5	..	..	..	..	..	..	..	..	..	..	3	5	8
Trumbull	..	..	5	..	..	2	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	3	6	..	..	..	..	..	..	..	..	..	..	3	6	9
Weston	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Westport	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	3	..	1	..	4	2	..	..	..	..	..	..	..	..	..	..	4	2	6
Wilton	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	1	2	3
Totals	1	21	109	32	3	28	9	4	..	1	..	..	13	7	54	9	..	12	5	9	10	177	148	1	..	..	1	..	1	..	4	1	4	2	182	150	332

Towns in Fairfield Co.	CLASS II.—CONSTITUTIONAL DISEASES. Order 1.—Diathetic. Dropsy and Anæmia.	Cancer.	Mortification.	Total. M.	Total. F.	Order 2.—Tubercular. Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total. M.	Total. F.	Total for Class II. Males.	Females.	Total.
Danbury	....	5	..	2	3	..	1	12	2	..	..	11	4	13	7	20
Bridgeport	5	4	..	5	4	1	3	36	4	..	..	27	17	32	21	53
Bethel	2	..	..	..	2	..	..	8	..	..	..	3	5	3	7	10
Brookfield	....	..	..	..	..	..	..	2	..	..	..	..	2	...	2	2
Darien	....	1	..	..	1	..	..	4	1	..	..	3	2	3	3	6
Easton	....	1	..	..	1	..	..	..	..	..	..	..	..	...	1	1
Fairfield	....	5	..	..	5	1	..	1	..	..	..	..	2	...	7	7
Greenwich	3	3	1	4	3	..	..	11	1	..	..	6	6	10	9	19
Huntington	1	..	..	..	1	..	..	3	..	..	..	3	..	3	1	4
Monroe	....	..	..	..	..	..	..	2	..	..	..	1	1	1	1	2
New Canaan	....	..	1	1	..	1	..	9	..	..	..	3	7	4	7	11
New Fairfield	....	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...
Newtown	....	3	..	..	3	..	..	2	..	..	..	2	..	2	3	5
Norwalk	6	3	..	2	7	1	1	31	..	..	..	12	21	14	28	42
Reading	2	..	..	1	1	..	..	2	..	..	..	1	1	2	2	4
Ridgefield	1	3	..	2	2	..	..	5	..	..	..	1	4	3	6	9
Sherman	1	1	..	1	1	..	..	1	..	..	..	..	1	1	2	3
Stamford	4	5	..	5	4	..	..	28	..	..	..	15	13	20	17	37
Stratford	....	1	..	1	..	..	..	2	..	..	..	1	1	2	1	3
Trumbull	....	1	..	..	1	..	..	2	..	..	..	2	..	2	1	3
Weston	....	..	..	..	..	..	..	3	..	..	..	1	2	1	2	3
Westport	8	..	..	1	2	..	..	5	1	..	..	3	3	4	5	9
Wilton	2	1	..	..	3	..	..	7	..	..	..	4	3	4	6	10
Totals	30	37	2	25	44	4	5	176	9	..	..	99	95	124	139	263

Towns in Fairfield Co.	CLASS III.—LOCAL DISEASES. Order 1.—Nervous System. Apoplexy.	Paralysis.	Insanity.	Chorea.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total. M.	Total. F.	Order 2.—Organs of Circulation. Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total. M.	Total. F.	Order 3.—Respiratory System. Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total. M.	Total. F.
Danbury	1	2	..	..	..	..	4	1	7	..	6	9	1	..	3	..	3	1	1	2	..	2	..	2	1	6
Bridgeport	6	3	..	..	:	..	16	7	18	..	20	30	2	..	22	..	6	18	1	2	2	15	4	11	17	18
Bethel	1	1	..	..	..	..	..	..	1	..	1	2	..	..	..	..	...	...	..	..	..	4	..	3	4	3
Brookfield	1	1	..	..	..	..	..	..	1	..	1	2	..	..	..	..	...	...	..	..	..	1	..	1	1	1
Darien	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	...	..	..	..	4	..	..	3	1
Easton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	...	2	..	..	1	...	..	..	..	1
Fairfield	1	..	..	..	..	..	1	..	2	..	1	3	..	..	6	..	3	3	..	1	..	4	..	..	2	3
Greenwich	4	5	..	..	..	..	..	..	1	..	4	6	..	..	5	..	3	2	..	1	..	...	..	..	1	..
Huntington	..	1	..	..	..	..	1	..	..	..	..	2	..	..	1	..	1	...	..	..	..	5	..	1	2	4
Monroe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	..	1	..	...	..	..	..	1
New Canaan	1	3	..	..	..	..	..	..	..	..	1	3	..	..	3	..	2	1	..	..	..	2	..	..	..	2
New Fairfield	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	...	..	..	..	...	2	1	3	..
Newtown	1	3	..	..	2	..	4	..	1	..	7	4	..	..	2	..	...	2	..	..	..	...	..	1	1	..
Norwalk	4	8	..	..	..	1	6	4	4	..	17	10	..	1	12	..	10	3	..	4	1	6	..	1	8	4
Reading	1	1	..	..	..	..	..	..	1	..	1	2	..	..	1	..	1	...	..	..	..	...	..	..	..	..
Ridgefield	3	..	..	..	..	..	..	..	..	..	2	1	..	..	1	..	1	...	..	1	..	1	..	1	1	2
Sherman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	...	..	1	..	1	..	..	1	1
Stamford	10	4	..	..	1	..	5	..	6	1	18	9	..	..	9	..	3	6	3	3	..	7	..	3	10	6
Stratford	..	2	..	..	..	..	..	..	2	..	1	3	..	..	..	..	...	...	..	..	..	3	..	1	2	2
Trumbull	1	1	..	..	..	..	..	..	1	..	1	2	..	..	1	..	...	1	..	..	..	...	..	..	..	..
Weston	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	...	...	..	1	..	...	1	..	2	..
Westport	2	2	..	..	..	..	1	..	..	..	..	5	..	..	4	..	2	2	..	..	..	2	..	1	3	..
Wilton	2	1	..	..	..	..	..	..	..	..	2	1	..	..	3	..	...	3	..	..	..	3	..	..	1	2
Totals	41	39	..	..	3	1	38	12	45	1	83	97	3	1	77	..	37	44	5	17	4	60	7	27	63	57

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Fairfield Co.	Order 4.—Digestive Organs.															Order 5.—Urinary Organs.										Order 6.—Generative Organs.				Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.					Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total.		Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total.		Ovarian Dropsy.	Ovarian tumor.	Disease of Uterus.	Total.	Joint Diseases.	Caries.	Necrosis.	Total.		Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total.		Males.	Females.	Total.
														M.	F.									M.	F.									M.	F.				M.	F.			
Danbury	..	2	2	..	..	..	..	..	..	..	..	..	..	3	1	..	2	..	..	..	..	..	..	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	14	19	33
Bridgeport	2	8	3	..	4	..	..	..	3	..	..	1	..	7	14	..	1	..	1	..	..	1	..	2	1	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	52	83	135
Bethel	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5	11
Brookfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5
Darien	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	6	2	8
Easton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Fairfield	1	..	1	..	1	..	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	11	19
Greenwich	..	..	..	..	1	..	..	..	3	..	..	..	3	1	..	..	..	..	..	..	3	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	13	11	24
Huntington	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	4	8	12
Monroe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
New Canaan	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	1	..	1	1	..	..	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	9	16
New Fairfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5
Newtown	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	1	..	..	1	..	..	..	2	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	12	7	19
Norwalk	2	1	3	..	..	..	..	..	1	3	2	2	..	10	4	..	1	1	..	..	1	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46	23	69
Reading	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5
Ridgefield	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	4	10
Sherman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Stamford	..	..	1	..	..	..	..	..	1	..	..	1	..	2	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	22	56
Stratford	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	6	9
Trumbull	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5
Weston	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4
Westport	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	8	14
Wilton	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	6	11
Totals	6	15	11	1	7	1	..	..	9	4	3	5	..	31	31	..	14	3	1	2	5	2	..	20	7	1	2	1	4	1	..	..	1	..	..	1	..	1	1	1	236	241	477

Towns in Fairfield Co.	CLASS IV.—DEVELOPMENTAL DISEASES.																CLASS V.—VIOLENT DEATHS.																						Grand Total for All Classes.		
	Order 1.—Of Children.								Order 2.—Of Women.			Order 3.—Of Old People.		Order 4.—Of Nutrition.		Total for Class IV.				Order 1.—Accident or Negligence.														Orders 2, 3, 4.				Sudden.		Sudden Cause, unascertained.		Sex not stated.	Total for Class V.					
	Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total.		Metritis.	Childbirth.	Total.	Old Age.		Atrophy and Debility.		Males.	Females.	Total.	Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total.		Order 8—Homicide.		Order 4—Suicide.													
							M.	F.				M.	F.	M.	F.													M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.	Males.	Females.	Total.
Danbury	9	....	..	..	..	..	6	3	...	...	...	1	11	.....	1	7	15	22	..	2	..	..	1	2	..	1	..	6	..	..	..	..	..	..	..	..	..	23	8	2	29	8	39	72	57	131
Bridgeport	5	12	2	..	1	1	15	6	...	2	2	7	5	1	.....	23	13	36	1	1	..	..	..	..	..	..	1	1	..	..	3	..	4	3	9	3	6	17	7	30	208	185	399
Bethel	2	1	..	..	..	..	2	1	...	1	1	1	5	.....	.....	3	7	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	3	..	3	16	23	39
Brookfield	..	1	..	..	..	..	1	..	...	...	...	1	1	1	.....	3	1	4	..	..	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..	1	..	2	1	3	7	7	14
Darien	..	2	..	..	..	..	1	1	...	...	...	1	2	.....	.....	2	3	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	11	25
Easton	..	....	..	..	..	..	..	..	...	...	...	2	1	.....	3	2	4	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	8	12
Fairfield	..	1	..	..	..	..	..	1	...	...	...	4	2	.....	.....	4	3	7	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	1	2	13	28	41
Greenwich	..	1	..	..	..	..	..	1	...	...	...	8	4	1	2	9	7	16	..	..	..	..	1	2	..	..	3	..	..	..	1	..	..	..	..	..	..	4	..	4	42	34	76
Huntington	1	....	..	..	..	..	1	..	...	...	...	1	3	.....	.....	2	3	5	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	2	..	3	2	5	15	16	31
Monroe	..	....	..	..	..	..	..	..	...	...	...	1	1	.....	.....	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	3	3	6
New Canaan	..	....	..	..	..	..	..	..	...	...	...	.....	1	1	1	1	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	18	35
New Fairfield	..	....	..	..	..	..	..	..	...	...	...	.....	2	.....	1	...	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	6	5	12
Newtown	1	....	..	..	..	..	1	..	...	1	1	3	2	.....	1	4	4	8	..	..	..	..	..	4	..	..	..	1	3	1	..	..	..	..	..	..	..	2	3	5	21	18	39
Norwalk	20	3	..	..	..	..	13	10	...	4	4	2	11	.....	3	15	28	43	3	..	12	..	2	..	..	..	..	14	3	1	..	2	..	..	..	..	1	17	3	21	121	95	217
Reading	..	....	..	..	..	..	..	..	...	...	...	1	.....	.....	.....	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	2	1	3	8	9	17
Ridgefield	1	....	..	..	1	..	1	1	...	1	1	3	.....	.....	.....	4	2	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	1	4	1	6	17	14	32
Sherman	..	1	..	..	..	..	..	1	...	...	...	2	1	1	.....	3	2	5	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	3	..	3	9	5	14
Stamford	3	....	..	..	1	3	6	1	...	2	2	.....	5	.....	3	6	11	17	..	..	..	1	2	1	..	..	2	2	..	..	..	1	3	..	9	2	1	14	5	20	99	80	180
Stratford	..	....	..	..	..	..	..	..	...	...	...	1	.....	.....	.....	1	...	1	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	1	2	10	13	23
Trumbull	..	....	..	..	..	..	..	..	...	...	...	.....	1	1	.....	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	...	1	1	8	12	20
Weston	2	....	..	..	..	..	1	1	...	...	...	.....	2	.....	.....	1	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	7	11
Westport	1	1	..	..	..	..	2	..	...	...	...	5	1	1	1	8	2	10	1	..	3	..	1	2	..	..	6	1	..	..	1	..	..	..	1	2	1	8	3	12	30	20	51
Wilton	..	....	..	..	..	..	..	..	...	1	1	.....	2	.....	.....	...	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	2	2	4	12	19	31
Totals	45	23	2	..	3	4	50	27	...	12	12	44	63	7	16	101	118	219	7	3	16	1	10	11	..	1	..	37	12	3	..	10	1	9	4	54	22	13	113	39	165	756	687	1456

CLASS I.—ZYMOTIC DISEASES.

Towns in Windham Co.	Order 1.—Miasmatic.																									Order 2.—Enthetic.					Order 3.—Dietic.					Total for Class 1.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Influenza.	Dysentery.	Diarrhœa.	Cholera.	Cholera Infantum.	Intermittent Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total.		Syphilis.	Hydrophobia.	Stricture.	Total.		Privation.	Purpura.	Alcoholism.	Intemperance.	Total.		Males.	Females.	Total.
																							M.	F.				M.	F.					M.	F.						
Brooklyn				3		2					1						2						2	6											2	6	8
Ashford																																					
Canterbury							1															1	2												2		2
Chaplin						1									1								2												2		2
Eastford	2		3												2								4	3									1		4	4	8
Hampton															1								1	2												2	2
Killingly			2	1		7		1									5			1		1	9	8									1	1	11	8	19
Plainfield					3					1			1				2	1					3	5											3	5	8
Pomfret	1	1												1									3												3		3
Putnam		3	1	3		13								3	4	3	7		1	2	2		16	26									1	1	17	26	43
Scotland			3											1									2	2											2	2	4
Sterling																																					
Thompson	4		5			1										1	7						9	9											9	9	18
Voluntown			1	2																			2	1									1	1	3	1	4
Windham			2	7		3								2			9			2	2	1	12	16											12	16	28
Woodstock			3	1	3																1		3	5											3	5	5
Totals	7	4	20	17	6	27	1	1		1	1		1	7	8	4	32	1	1	5	5	3	69	83						2	2		1	4	1	73	89	157

CLASS II.—CONSTITUTIONAL DISEASES.

Towns in Windham Co.	Order 1.—Diathetic. Dropsy, Anæmia.	Cancer.	Mortification.	Total. M.	Total. F.	Order 2.—Tubercular. Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total. M.	Total. F.	Total for Class II. Males.	Females.	Total.
Brooklyn	1	1	..	1	1	1	1	4	..	..	..	4	2	5	3	8
Ashford	..	1	..	1	..	1	..	..	..	..	..	..	1	1	1	2
Canterbury	..	..	..	..	..	..	..	1	1	..	..	1	1	1	1	2
Chaplin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eastford	1	..	..	..	1	..	..	6	..	..	..	2	4	2	5	7
Hampton	..	..	..	..	..	..	..	5	..	..	..	3	2	3	2	5
Killingly	5	3	..	5	3	..	2	15	1	..	..	11	7	16	10	26
Plainfield	2	3	..	3	2	..	..	6	1	..	..	4	3	7	5	12
Pomfret	..	..	1	1	..	..	..	3	..	..	..	1	2	2	2	4
Putnam	2	1	..	1	2	1	..	20	2	..	..	12	11	13	13	26
Scotland	..	1	..	1	..	..	..	1	..	..	..	..	1	1	1	2
Sterling	..	..	..		..	..	..	1	..	..	..	..	1	..	1	1
Thompson	2	3	..	5	..	3	..	7	1	..	..	3	8	8	8	16
Voluntown	..	..		..	..	..	..	3	..	..	..	2	1	2	1	3
Windham	2	1	1	3	1	1	..	27	..	..	..	11	17	14	18	32
Woodstock	1	1	..	..	2	..	..	4	1	..	..	2	3	2	5	7
Totals	16	15	2	21	12	7	3	103	7	..	..	56	64	77	76	153

CLASS III.—LOCAL DISEASES.

Towns in Windham Co.	Order 1.—Nervous System. Cephalitis.	Apoplexy.	Paralysis.	Insanity.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total. M.	Total. F.	Order 2.—Organs of Circulation. Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total. M.	Total. F.	Order 3.—Respiratory System. Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total. M.	Total. F.
Brooklyn	..	..	..	1	..	..	..	1	..	..	1	1	..	..	3	..	2	1	..	..	..	1	..	..	..	1
Ashford	..	..	1	..	..	..	..	..	1	..	2	..	..	..	1	..	1	..	..	..	..	1	..	1	1	1
Canterbury	..	1	..	..	..	1	..	..	..	..	..	2	..	..	2	..	..	2	..	..	..	4	..	..	..	4
Chaplin	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eastford	..	2	1	..	..	..	..	..	..	..	2	1	..	..	1	..	..	1	..	..	..	1	..	..	1	..
Hampton	..	1	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Killingly	..	3	5	..	..	..	4	2	..	..	10	4	..	..	1	..	1	..	..	..	..	6	..	1	4	3
Plainfield	..	..	..	..	..	1	..	..	1	..	2	..	3	..	3	..	3	3	..	..	..	2	..	..	2	..
Pomfret	..	..	1	..	..	..	..	1	2	..	2	2	..	..	1	..	1	..	..	..	..	3	..	..	3	..
Putnam	..	2	..	..	..	..	..	1	5	..	5	3	1	..	5	..	4	2	..	2	..	2	..	1	3	2
Scotland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Sterling	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	1	..	..	..	1	..	..	..	1
Thompson	1	3	1	..	..	..	1	1	4	..	6	5	..	1	1	..	2	..	..	1	..	5	..	..	2	4
Voluntown	..	..	1	..	..	..	..	..	..	..	1	..	..	..	4	..	3	1	..	..	..	1	..	..	..	1
Windham	..	4	2	..	..	..	2	..	1	..	6	3	..	..	3	..	1	2	..	..	..	1	..	..	..	1
Woodstock	..	..	..	..	..	..	..	..	1	..	..	1	..	..	4	..	3	1	..	4	..	6	..	..	5	5
Totals	1	17	12	1	..	2	8	6	15	1	40	23	4	1	30	..	21	14	..	8	..	35	..	3	22	24

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Windham Co.	Order 4.—Digestive Organs.																				Order 5.—Urinary Organs.								Order 6.—Generative Organs.			Order 7.—Organs of Locomotion.			Order 8.—Integumentary System.					Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total. M.	Total. F.	Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total. M.	Total. F.	Ovarian Dropsy.	Ovarian tumor.	Disease of Uterus.	Total.	Joint Disease.	Caries.	Necrosis.	Total. M.	Total. F.	Phlegmon.	Ulcer.	Tumor.	Skin Disease.	Total. M.	Total. F.	Males.	Females.	Total.
Brooklyn	1											1					1																							5	3	8
Ashford																	1							1																5	1	6
Canterbury									1					1						1				1																2	8	10
Chaplin																				1				1		1														1	1	2
Eastford																																								3	2	5
Hampton									1					1																										3	1	4
Killingly	1														1									1																15	8	23
Plainfield												1			1		1							1																7	5	12
Pomfret		1		1		1						2		2	3																								8	5	13
Putnam	1	2		1						1		2		3	4		1	1						2															17	11	28
Scotland															1																									2	2
Sterling		1																																						2	3
Thompson				1		1			1					2	1		1	1		1				3	1															15	11	26
Voluntown		2	1												2	1																								6	3	9
Windham		1	1		1				1			2		4	2		3							2	1															13	9	22
Woodstock															1																									8	8	16
Totals	3	6	4	2	2	1			5			8		16	15		8	2	1	3				10	4															109	80	189

Towns in Windham Co.	CLASS IV.—DEVELOPMENTAL DISEASES. Order 1.—Of Children. Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total. M.	Total. F.	Order 2.—Of Women. Metritis.	Childbirth.	Total.	Order 3.—Of Old People. Old Age. M.	Old Age. F.	Order 4.—Of Nutrition. Atrophy and Debility. M.	Atrophy and Debility. F.	Total for Class IV. Males.	Females.	Total.
Brooklyn	..	2	..	..	..	..	2	1	...	1	1	.....	1	.....	.....	1	3	4
Ashford	1	....	..	..	..	..	..	1	...	...	...	2	.....	1	1	3	2	5
Canterbury	..	....	..	..	..	..	..	..	...	...	...	1	.....	1	.....	2	..	2
Chaplin	..	....	..	..	..	..	..	..	...	...	...	.....	1	.....	.....	..	1	1
Eastford	..	....	..	..	..	..	..	..	...	...	...	1	.....	.....	.....	1	..	1
Hampton	..	....	..	..	..	..	..	..	...	...	...	.....	3	.....	.....	..	3	3
Killingly	10	16	..	..	..	..	19	7	...	...	...	7	4	.....	.....	26	11	37
Plainfield	2	....	..	..	..	..	2	..	...	...	...	.....	.....	.....	.....	2	..	2
Pomfret	3	....	..	..	..	..	3	..	...	...	...	2	2	.....	.....	5	2	7
Putnam	..	1	..	..	..	2	3	..	...	...	...	2	2	1	.....	6	2	8
Scotland	..	....	..	..	..	..	..	..	...	...	...	.....	1	.....	.....	..	1	1
Sterling	..	....	..	..	..	..	..	..	...	...	...	.....	.....	1	.....	1	..	1
Thompson	3	1	..	..	..	..	1	3	...	1	1	.....	.....	1	.....	2	4	6
Voluntown	..	1	..	..	..	..	1	..	...	...	...	.....	3	.....	.....	1	3	4
Windham	..	12	..	..	..	..	8	4	...	...	...	1	6	3	1	12	11	23
Woodstock	..	....	..	..	..	..	..	..	...	...	...	.....	1	.....	.....	..	1	1
Totals	19	33	..	..	..	2	38	16	...	2	2	16	24	8	2	62	44	106

Towns in Windham Co.	CLASS V.—VIOLENT DEATHS. Order 1.—Accident or Negligence. Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total. M.	Total. F.	Orders 2, 3, 4. Order 3—Homicide. M.	Order 3—Homicide. F.	Order 4—Suicide. M.	Order 4—Suicide. F.	Sudden. M.	Sudden. F.	Sudden Cause, unascertained. M.	Sudden Cause, unascertained. F.	Sex not stated.	Total for Class V. Males.	Females.	Total.	Grand Total for All Classes. Males.	Females.	Total.
Brooklyn	..	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	3	..	3	16	15	31
Ashford	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	1	1	2	10	5	15
Canterbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	2	8	10	18
Chaplin	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	1	3	3	6
Eastford	..	..	..	1	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	2	12	11	·23
Hampton	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	6	9	15
Killingly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	69	37	106
Plainfield	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	3	..	..	4	..	4	23	15	38
Pomfret	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	19	9	28
Putnam	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	10	3	2	11	16	55	63	121
Scotland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	6	9
Sterling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2	..	2	4	3	7
Thompson	..	..	..	..	..	3	..	..	..	3	..	..	..	1	1	..	..	13	5	1	17	6	24	51	38	90
Voluntown	..	..	..	1	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	2	2	11	11	22
Windham	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	6	12	2	7	12	21	58	66	126
Woodstock	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	19	32
Totals	1	2	..	2	3	3	..	..	3	9	4	1	..	2	1	..	..	30	29	6	42	34	82	363	318	687

CLASS I.—ZYMOTIC DISEASES.

Towns in Litchfield Co.	Order 1.—Miasmatic.																							Order 2.—Enthetic.				Order 3.—Dietic.					Total for Class 1.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Influenza.	Dysentery.	Diarrhœa.	Cholera.	Cholera Infantum.	Intermittent Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total. M.	Total. F.	Syphilis.	Hydrophobia.	Stricture.	Total. M.	Total. F.	Privation.	Purpura.	Alcoholism.	Intemperance.	Total. M.	Total. F.	Males.	Females.	Total.
Litchfield	...	...	2	...	...	6	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	4	7	11	...	...	...	...	...	...	...	...	...	4	7	11
Barkhamsted	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4	...	...	...	...	...	...	...	...	...	2	...	2
Bethlehem	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bridgewater	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	...	1
Canaan	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1
Colebrook	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cornwall	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1
Goshen	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	1	2
Harwinton	...	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	1	4	...	...	...	...	...	...	...	...	...	3	1	4
Kent	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	2	1	3
Morris	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
New Hartford	...	2	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	5	3	8	...	...	...	...	...	...	...	...	...	5	3	8
New Milford	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	2	3	5	...	...	...	...	...	...	...	...	...	2	3	5
Norfolk	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	1	2
North Canaan	...	...	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4	...	...	...	...	...	...	...	...	2	2	4
Plymouth	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	4	4	8	...	...	...	...	...	...	...	...	...	4	4	8
Roxbury	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4	...	...	...	...	...	...	...	...	2	2	4
Salisbury	...	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	1	1	...	...	...	...	5	2	7	...	...	...	...	...	...	...	...	...	5	2	7
Sharon	...	2	...	...	...	4	...	...	...	...	...	...	...	2	1	...	...	1	...	...	...	...	1	5	5	10	...	...	...	...	...	...	...	...	...	5	5	10
Thomaston	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	4	1	5	...	...	...	...	...	...	...	...	...	4	1	5
Torrington	...	2	...	...	...	3	...	...	...	...	...	...	...	3	1	...	3	...	...	...	...	...	9	3	12	...	...	...	...	...	...	...	...	...	9	3	12
Warren	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	3	2	5	...	...	...	...	...	...	...	...	...	3	2	5
Washington	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	1	2
Watertown	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	1	2	3
Winchester	...	7	20	1	...	1	...	3	...	...	...	...	...	1	...	...	3	1	...	...	...	...	17	19	39	...	...	...	...	...	...	...	...	...	17	19	39
Woodbury	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	1	2	3
Totals	11	44	6	1	27	3	1	...	...	...	...	...	...	11	6	15	3	2	...	...	5	74	63	...	1	...	...	1	...	...	...	...	1	...	75	64	139

Towns in Litchfield Co.	CLASS II.—CONSTITUTIONAL DISEASES. Order 1.—Diathetic. Dropsy, Anæmia.	Cancer.	Mortification.	Total. M.	Total. F.	Order 2.—Tubercular. Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total. M.	Total. F.	Total for Class II. Males.	Females.	Total.
LITCHFIELD	..	1	..	..	1	..	..	3	..	..	..	2	1	2	2	4
Barkhamsted	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1
Bethlehem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bridgewater	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1
Canaan	..	1	..	..	1	..	..	..	..	..	..	..	1	..	1	1
Colebrook	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1
Cornwall	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1
Goshen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Harwinton	1	..	..	..	1	..	..	5	..	..	..	2	3	2	4	6
Kent	..	1	..	..	1	1	..	4	..	..	..	2	3	2	4	6
Morris	1	1	..	1	1	..	..	2	..	..	..	1	1	2	2	4
New Hartford	..	1	..	1	..	..	..	10	..	..	..	2	8	3	8	11
New Milford	..	1		..	1	..	..	5	..	..	..	2	3	2	4	6
Norfolk	1			..	1	..	..	3	..	..	..	2	1	2	2	4
North Canaan	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Plymouth	1	1	..	..	2	..	..	1	..	..	..	1	..	1	2	3
Roxbury	1	..	..	..	1	..	..	2	..	..	..	1	1	1	2	3
Salisbury	..	1	..	..	1	..	..	6	..	..	..	3	3	3	4	7
Sharon	..	1	..	..	1	..	..	3	..	..	..	2	1	2	2	4
Thomaston	..	..	..	..	..	..	..	5	1	..	..	1	5	1	5	6
Torrington	3	4	1	2	6	..	..	9	..	..	..	7	2	9	8	17
Warren	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Washington	..	3	..	2	1	..	2	1	..	..	..	2	1	4	2	6
Watertown	2	..	..	1	1	..	..	6	..	..	..	3	3	4	4	8
Winchester	4	1	..	3	2	..	..	12	..	..	..	8	4	11	6	17
Woodbury	..	1	..	..	1	..	..	5	..	..	..	4	1	4	2	6
Totals	15	18	1	10	23	1	2	86	1	..	..	46	45	56	68	124

Towns in Litchfield Co.	CLASS III.—LOCAL DISEASES. Order 1.—Nervous System. Cephalitis.	Apoplexy.	Paralysis.	Insanity.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total. M.	Total. F.	Order 2.—Organs of Circulation. Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total. M.	Total. F.	Order 3.—Respiratory System. Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total. M.	Total. F.
LITCHFIELD	..	1	..	..	..	..	1	..	..	..	1	1	..	..	4	..	3	1	..	..	..	3	..	..	1	2
Barkhamsted	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	2	2	1
Bethlehem	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bridgewater	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Canaan	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	2	..	..	1	2
Colebrook	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Cornwall	..	5	..	1	..	..	1	..	..	..	4	3	..	..	1	..	..	1	..	..	..	1	..	..	..	1
Goshen	..	1	..	..	..	..	1	..	..	..	..	2	1	..	..	..	1	..	..	..	..	1	..	..	1	..
Harwinton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Kent	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	..	..	..	..	..	..	..	..
Morris	..	1	1	..	..	..	..	1	..	..	2	1	..	..	..	..	..	..	..	..	..	2	..	..	1	1
New Hartford	..	1	5	1	..	..	..	..	3	..	8	2	..	..	3	..	1	2	..	1	..	3	..	..	2	2
New Milford	..	1	2	..	..	..	..	..	1	..	3	1	..	..	5	..	2	3	..	..	..	..	..	..	..	..
Norfolk	..	1	1	..	..	..	1	..	1	..	1	3	..	..	..	..	..	..	..	..	1	2	..	1	2	2
North Canaan	..		5	..	..	..	..	..	..	..	1	4	..	..	1	..	1	..	..	..	..	2	..	..	1	1
Plymouth	..	..	1	..	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Roxbury	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	4	..	..	3	1
Salisbury	..	3	..	..	1	..	..	..	3	..	1	6	1	..	1	..	1	1	..	..	..	4	..	..	4	..
Sharon	..	2	..	..	..	..	1	..	..	..	1	2	..	..	2	..	2	..	..	1	..	1	..	1	3	..
Thomaston	..	1	1	..	..	..	..	4	2	..	5	3	..	..	..	..	..	..	..	..	1	1	..	..	1	1
Torrington	..	3	..	..	..	..	3	..	4	..	5	5	1	..	..	..	1	..	..	..	..	1	..	1	1	1
Warren	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Washington	..	..	1	..	..	..	1	..	..	..	..	2	..	..	2	..	2	..	..	..	..	1	..	..	..	1
Watertown	..	1	..	..	..	..	..	1	..	..	..	2	..	..	2	..	..	2	..	..	..	..	..	..	..	..
Winchester	..	1	1	..	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	2	1	2	3	2
Woodbury	..	4	1	..	..	..	..	..	1	..	4	2	..	..	1	..	..	1	..	..	..	2	..	1	1	2
Totals	..	27	20	2	1	1	11	6	16	..	39	45	3	..	25	..	17	11	..	3	2	35	1	8	29	20

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Litchfield Co.	Order 4.—Digestive Organs.															Order 5.—Urinary Organs.										Order 6.—Generative Organs.			Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.						Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total.		Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total.		Ovarian Dropsy.	Ovarian Tumor.	Disease of Uterus.	Total.	Joint Diseases.	Caries.	Necrosis.	Total.		Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total.		Males.	Females.	Total.
														M.	F.									M.	F.														M.	F.			
Litchfield	..	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..		..	..	1	..	..	1	7	7	14
Barkhamsted	..	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	3	3	6
Bethlehem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	1	1	2
Bridgewater	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..
Canaan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	2	2	4
Colebrook	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	2	..	..	1	..	1	..	..	..	..		..	..	..	..	..	..	2	1	3
Cornwall	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	7	5	12
Goshen	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	3	2	5
Harwinton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	1	..	1
Kent	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	3	1	4
Morris	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	3	3	6
New Hartford	..	..	1	..	..	..	..	..	..	..	..	1	..	1	1	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..		..	..	..	1	1	1	14	8	22
New Milford	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	6	5	11
Norwalk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	3	5	8
North Canaan	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	4	5	9
Plymouth	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	3	3
Roxbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	4	1	5
Salisbury	..	..	1	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..		..	..	..	..	..	..	8	8	16
Sharon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1		..	..	..	..	..	..	7	2	9
Thomaston	..	2	1	..	..	1	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	1	..	1	..	9	6	15
Torrington	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	3	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	10	7	17
Warren	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	1	..	1
Washington	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..		1	..	..	..	..	..	2	4	6
Watertown	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	4	4
Winchester	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..		..	..	..	1	..	..	5	5	10
Woodbury	..	..	..	..	..	..	..	..	1	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	5	7	12
Totals	1	3	10	..	2	1	..	..	1	..	1	4	..	10	13	..	9	2	2	2	..	..	..	12	3	..	1	..	1	1	2	2	2	1	..	..	2	1	2	1	111	95	206

Towns in Litchfield Co.	CLASS IV.—DEVELOPMENTAL DISEASES. Order 1.—Of Children. Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total. M.	Total. F.	Order 2.—Of Women. Metritis.	Childbirth.	Total.	Order 3.—Of Old People. Old Age. M.	Old Age. F.	Order 4.—Of Nutrition. Atrophy and Debility. M.	Atrophy and Debility. F.	Total for Class IV. Males.	Females.	Total.
LITCHFIELD	..	1	..	..	..	1	..	2	...	...	...	1	2	1	....	2	4	6
Barkhamsted	..	....	..	..	..	..	..	..	...	...	...	....	2	....	....	...	2	2
Bethlehem	..	1	..	..	1	..	2	..	...	...	...	....	....	....	....	2	...	2
Bridgewater		....	..	..	..	..	..	..	...	...	...	1	3	....	....	1	3	4
Canaan	..	1	..	..	..	..	1	..	...	1	1	....	....	....	....	1	1	2
Colebrook	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
Cornwall	..	....	..	..	..	..	..	..	...	...	...	....	2	....	....	...	2	2
Goshen	2	....	..	..	..	..	2	..	...	...	...	....	1	....	....	2	1	3
Harwinton	..	....	..	..	..	..	..	..	...	...	...	....	2	....	....	...	2	2
Kent	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
Morris	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
New Hartford	..	1	..	..	..	..	1	..	...	...	...	....	1	....	....	1	1	2
New Milford	3	1	..	..	..	..	3	1	...	...	...	3	7	....	....	6	8	14
Norfolk	1	....	..	..	..	..	..	1	...	1	1	....	1	....	....	...	3	3
North Canaan	..	....	..	..	..	..	..	..	...	...	...	....	....	1	....	1	...	1
Plymouth	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
Roxbury	..	1	..	..	..	..	..	1	...	...	...	....	2	....	....	...	3	3
Salisbury	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
Sharon	..	....	..	..	..	..	..	..	...	...	...	2	1	....	....	2	1	3
Thomaston	1	1	..	..	..	..	1	1	...	1	1	....	....	....	....	1	2	3
Torrington	..	3	..	..	..	..	1	2	...	...	...	1	1	....	....	2	3	5
Warren	..	....	..	..	..	..	..	..	...	...	...	....	....	....	....	...	...	...
Washington	..	....	..	..	..	..	..	..	...	...	...	1	1	....	....	1	1	2
Watertown	..	....	..	..	..	..	..	..	...	...	...	....	1	....	....	...	1	1
Winchester	..	1	..	..	..	..	1	..	...	...	...	1	4	....	....	2	4	6
Woodbury	..	....	..	..	..	..	..	..	...	1	1	....	1	....	....	...	2	1
Totals	7	11	..	..	1	1	12	8	...	4	4	10	32	2	....	24	44	68

Towns in Litchfield Co.	CLASS V.—VIOLENT DEATHS. Order 1.—Accident or Negligence. Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total. M.	Total. F.	Orders 2, 3, 4. Order 3—Homicide. M.	Order 3—Homicide. F.	Order 4—Suicide. M.	Order 4—Suicide. F.	Sudden. M.	Sudden. F.	Sudden Cause, unascertained. M.	Sudden Cause, unascertained. F.	Sex not stated.	Total for Class V. Males.	Females.	Total.	Grand Total for All Classes. Males.	Females.	Total.
LITCHFIELD	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	1	3	4	16	23	39
Barkhamsted	1	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	2	7	6	13
Bethlehem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2	..	2	5	1	6
Bridgewater	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	..	...	3	3	6
Canaan	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	...	1	1	4	5	9
Colebrook	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	3	..	2	3	5	4	5	9
Cornwall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	..	...	8	8	16
Goshen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	1	6	4	11
Harwinton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	...	2	2	6	9	15
Kent	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	..	...	7	6	13
Morris	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	2	..	2	7	6	13
New Hartford	..	..	..	..	1	6	..	..	..	6	1	..	..	..	..	..	..	..	..	..	6	1	7	29	21	50
New Milford	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	2	1	..	3	2	5	19	22	41
Norfolk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	1	6	13	20
North Canaan	..	..	..	..	..	3	..	..	..	3	..	..	..	..	..	..	..	2	..	..	5	..	5	13	9	22
Plymouth	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	1	..	3	1	4	8	8	16
Roxbury	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	...	1	1	5	8	13
Salisbury	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	1	1	3	1	5	19	15	35
Sharon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	..	...	16	10	26
Thomaston	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	16	14	30
Torrington	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	...	1	1	30	22	52
Warren	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	5	2	7
Washington	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	...	1	1	8	9	17
Watertown	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	...	2	2	5	13	18
Winchester	..	..	..	..	..	..	7	..	2	5	4	..	..	..	..	..	..	..	..	1	5	4	10	40	38	79
Woodbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	...	3	6	10	16	29
Totals	2	..	..	1	2	13	8	..	3	19	10	1	1	2	..	3	1	11	14	7	36	26	69	302	296	605

CLASS I.—ZYMOTIC DISEASES.

Towns in Middlesex Co.	Order 1.—Miasmatic.																								Order 2.—Enthetic.				Order 3.—Dietic.				Total for Class I.		
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Eclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Influenza.	Dysentery.	Diarrhœa.	Cholera Infantum.	Intermittent Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total.		Syphilis.	Hydrophobia.	Stricture.	Total.		Privation.	Purpura.	Alcoholism.	Intemperance.	Total.		Males.	Females.	Total.
																						M.	F.													
Middletown			9	5	1	8	3							1	2	10	1	2	1		2	21	23						1			1		21	24	45
Haddam	1			1																			3											3	3
Chatham			1			1							1		3								3										3	3	6
Chester								1							1	1	1					2	2										2	2	4
Clinton			2		1										1						1	4	1										4	1	5
Cromwell			4			3								2		1	1					2	9										2	9	11
Durham																						1	1										1	1	2
East Haddam						3								2			1					5	1										5	1	6
Essex						1											1					2											2		2
Killingworth																	2					1	1										1	1	2
Middlefield														3								1	2										1	2	3
Old Saybrook															1	2	2					2	4										2	4	6
Portland			2	3	2	4	1							8		3						6	17										6	17	23
Saybrook						1										2	1				1	3	2										3	2	5
Westbrook						2								4		1						3	4										3	4	7
Totals		2	19	8	2	25	3	3		1			1	20	8	20	10	2	2		2	56	73						1			1		56	74	130

CLASS II.—CONSTITUTIONAL DISEASES.

Towns in Middlesex Co.	Order 1.—Diathetic. Dropsy and Anæmia.	Cancer.	Mortification.	Total. M.	Total. F.	Order 2.—Tubercular. Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total. M.	Total. F.	Total for Class II. Males.	Females.	Total.
Middletown	1	3	1	..	5	1	2	36	2	..	..	18	23	18	28	46
Haddam	2	1	1	3	1	..	..	2	..	..	..	2	..	5	1	6
Chatham	2	2	..	1	3	1	..	3	..	..	..	2	2	3	5	8
Chester	1	1	..	2	..	..	..	3	..	..	..	2	1	4	1	5
Clinton	1	1	..	1	1	..	..	1	..	..	..	..	1	1	2	3
Cromwell	3	1	..	1	3	..	..	2	..	..	..	2	..	3	3	6
Durham	....	1	..	..	1	..	..	1	..	..	..	..	1	...	2	2
East Haddam	....	2	..	1	1	..	..	8	..	..	..	3	5	4	6	10
Essex	1	..	..	..	1	..	..	3	..	..	..	2	1	2	2	4
Killingworth	1	..	..	..	1	..	..	2	..	..	..	2	..	2	1	3
Middlesex	1	..	..	..	1	..	..	....	..	..	..	..	..	...	1	1
Old Saybrook	....	1	..	..	1	..	..	1	..	..	1	1	1	1	2	3
Portland	....	..	..	..	..	..	..	16	..	..	..	6	10	6	10	16
Saybrook	....	..	..	..	..	..	..	2	..	..	..	1	1	1	1	2
Westbrook	2	1	..	..	1	..	..	....	..	..	..	..	..	2	1	3
Totals	15	14	2	11	20	2	2	80	2	..	1	41	46	52	66	118

CLASS III.—LOCAL DISEASES.

Towns in Middlesex Co.	Order 1.—Nervous System. Apoplexy.	Paralysis.	Insanity.	Chorea.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total. M.	Total. F.	Order 2.—Organs of Circulation. Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total. M.	Total. F.	Order 3.—Respiratory System. Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total. M.	Total. F.
Middletown	10	12	10	..	1	..	1	..	6		20	20	2	..	13	..	5	10	1	1	..	9	..	1	5	7
Haddam	..	..	..	..	..	..	2	..	2	..	2	2	1	..	2	..	1	2	..	..	..	3	..	..	1	2
Chatham	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	...	3	..	..	..	1	..	2	2	1
Chester	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	...	...	..	1	..	3	..	..	4	..
Clinton	..	1	..	..	..	..	..	..	1	..	1	1	..	..	2	..	...	2	..	..	..	...	..	1	1	..
Cromwell	..	..	2	..	1	..	2	..	..	..	3	2	..	..	..	..	...	...	..	..	..	1	..	..	1	..
Durham	..	1	..	..	..	..	..	..	..	..	1	..	..	..	3	..	1	2	..	..	..	1	..	..	1	..
East Haddam	5	3	1	..	..	..	2	1	1	..	7	6	..	..	1	..	...	1	..	..	..	...	..	..	..	..
Essex	1	..	..	..	..	..	..	2	..	..	3	..	..	..	..	..	...	...	..	1	..	...	..	..	..	1
Killingworth	1	1	..	..	..	..	..	..	..	..	..	2	..	..	..	..	...	...	..	..	..	...	..	..	..	..
Middlesex	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	...	...	..	..	..	...	..	..	..	..
Old Saybrook	..	..	.	..	..	..	..	1	2	..	2	1	..	..	2	..	1	1	..	1	..	...	..	..	..	1
Portland	1	1		..	..	..	..	2	1	..	3	2	..	..	6	..	4	2	..	..		3	..	1	2	2
Saybrook	1	1	1	..	..	..	1	..	..	..	3	1	..	..	1	..	1	...	..	..	..	...	..	1	1	..
Westbrook	..	..	..	..	..	..	..	..	3	..	1	2	..	..	1	..	1	...	..	2	..	1	..	..	..	3
Totals	19	20	15	..	2	..	8	6	17	..	47	40	3	..	34	..	14	23	1	6	..	22	..	6	18	17

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Middlesex Co.	Order 4.—Digestive Organs.																		Order 5.—Urinary Organs.								Order 6.—Generative Organs.				Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.						Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Stric. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total.		Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uræmia.	Prostatitis.	Total.		Ovarian Dropsy.	Ovarian tumor.	Disease of Uterus.	Total.	Joint Disease.	Caries.	Necrosis.	Total.		Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total.		Males.	Females.	Total.
														M.	F.									M.	F.						M.	F.							M.	F.			
Middletown	1	..	3	..	..	..	..	..	..	2	3	..	..	4	5	..	3	..	..	..	1	..	..	3	1	..	1	1	2	2	..	..	..	1	1	..	..	..	..	1	1	38	45	83
Haddam	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	1	1	..	1	..	..	..	1	..	5	7	12
Chatham	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	7
Chester	..	..	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7
Clinton	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	5
Cromwell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6
Durham	..	..	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4	9
East Haddam	..	..	1	..	..	..	..	..	..	1	1	..	..	2	..	..	1	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	11	9	20
Essex	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	1	7
Killingworth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Middlefield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Old Saybrook	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6
Portland	1	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	7	17
Saybrook	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	2	8
Westbrook	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	6	8
Totals	1	..	8	1	1	..	..	..	..	3	7	2	..	9	14	..	6	..	..	3	1	..	2	11	1	..	1	1	2	2	..	..	..	1	1	..	..	..	..	1	1	109	99	200

Towns in Middlesex Co.	CLASS IV.—DEVELOPMENTAL DISEASES.																CLASS V.—VIOLENT DEATHS.																								Grand Total for All Classes.		
	Order 1.—Of Children.								Order 2.—Of Women.			Order 3.—Of Old People.		Order 4.—Of Nutrition.		Total for Class IV.				Order 1.—Accident or Negligence.												Orders 2, 3, 4.				Sudden.		Sudden, Cause unascertained.		Sex not stated.	Total for Class V.					
	Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total.		Metritis.	Childbirth.	Total.	Old Age.		Atrophy and Debility.		Males.	Females.	Total.	Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total.			Order 3—Homicide.		Order 4—Suicide.													
							M.	F.				M.	F.	M.	F.	Males.	Females.	Total.									M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	Total.			
Middletown	3	4	..	..	..	..	5	2	..	..	..	4	4	.....	3	9	9	18	2	1	1	1	..	..	..	..	1	3	3	..	1	2	..	..	1	3	..	5	9	14	91	115	206
Haddam	..	1	..	..	..	..	..	1	..	..	..	.....	2	.....	.....	..	3	3	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	2	12	14	26
Chatham	..	....	..	..	..	..	..	..	..	..	..	.....	.....	1	1	1	1	2	..	..	1	..	..	..	..	..	3	2	2	..	..	..	..	..	1	..	..	3	2	5	13	15	28
Chester	2	1	..	..	..	..	1	2	..	..	..	.....	.....	.....	1	1	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	13	8	21
Clinton	..	1	..	..	..	..	1	..	..	..	..	1	3	.....	.....	2	3	5	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	4	..	..	5	5	10	14	24
Cromwell	..	....	..	..	..	..	..	..	..	1	1	1	1	.....	.....	1	2	3	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	2	1	..	3	1	4	13	17	30
Durham	..	....	..	..	..	..	..	..	..	..	..	1	.....	.....	.....	1	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	8	7	15
East Haddam	..	2	..	..	..	..	2	..	..	1	1	1	1	1	.....	4	2	6	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	1	..	1	..	4	..	4	28	18	46
Essex	..	....	..	..	..	..	..	..	..	..	..	.....	1	.....	1	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	10	5	15
Killingworth	..	....	..	..	..	..	..	..	..	..	..	1	1	.....	.....	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	4	5	9
Middlesex	..	1	..	..	..	..	..	1	..	..	..	1	1	.....	.....	1	2	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	2	7	9
Old Saybrook	..	....	..	..	..	..	..	..	..	..	..	.....	1	.....	.....	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1	1	2	7	11	18
Portland	2	....	..	..	..	..	1	1	..	1	1	1	3	.....	.....	2	5	7	..	1	..	..	..	1	..	..	..	2	..	..	..	1	..	..	..	..	..	3	..	3	27	39	66
Saybrook	2	....	..	..	..	..	..	2	..	..	..	1	1	.....	.....	1	3	4	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	12	8	20
Westbrook	..	....	..	..	..	..	..	..	..	..	..	.....	1	.....	.....	..	1	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	1	3	9	13	22
Totals	9	10	..	..	..	..	10	9	..	3	3	12	20	5	3	24	38	62	2	3	2	1	3	3	1	..	4	14	5	..	1	4	3	1	1	7	9	..	26	19	45	259	296	555

CLASS I.—ZYMOTIC DISEASES.

Towns in Tolland Co.	Order 1.—Miasmatic.																										Order 2.—Enthetic.				Order 3.—Dietic.				Total for Class I.		
	Measles.	Scarlet Fever.	Diphtheria	Croup.	Whooping Cough.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Sclampsia.	Carbuncle.	Pyæmia.	Septicæmia.	Influenza.	Dysentery.	Diarrhœa.	Cholera Infantum.	Intermittent Fever.	Typho-Malarial Fever.	Remittent Fever.	Rheumatism.	Cerebro-Spinal Meningitis.	Total.		Syphilis.	Hydrophobia.	Stricture.	Total.		Privation.	Purpura.	Alcoholism.	Intemperance.	Total.		Males.	Females.	Total.
																						M.	F.				M.	F.					M.	F.			
Tolland																																					
Andover						1																													1	1	2
Bolton						1										1						1													2	1	3
Columbia				1																		1													1	1	2
Coventry			2																			4													4		4
Ellington																1						1													1		1
Hebron						1									1							2													2		2
Mansfield													1	1								2													2		2
Somers																1						1													1		1
Stafford			2			1										1						4													2	2	4
Union						1																1													1		1
Vernon			1	3	3	7							1	1	3	6					1	26													18	10	28
Willington						2								1	1	1						5													3	2	5
Totals			5	5	3	15							2	2	5	12					1	49						1	1		2	3	1	4	32	24	56

Towns in Tolland Co.	CLASS II.—CONSTITUTIONAL DISEASES.															CLASS III.—LOCAL DISEASES.																											
	Order 1.—Diathetic.					Order 2.—Tubercular.								Total for Class II.			Order 1.—Nervous System.											Order 2.—Organs of Circulation.					Order 3.—Respiratory System.										
	Dropsy and Anæmia.	Cancer.	Mortification.	Total.		Scrofula.	Marasmus.	Phthisis.	Hydrocephalus.	Peritonitis.	Meningitis.	Total.		Males.	Females.	Total.	Apoplexy.	Paralysis.	Insanity.	Chorea.	Epilepsy.	Tetanus.	Convulsions.	Meningitis.	Brain Disease.	Spinal Disease.	Total.		Pericarditis.	Aneurism.	Heart Disease.	Angina.	Total.		Laryngitis.	Bronchitis.	Pleurisy.	Pneumonia.	Asthma.	Lung Disease.	Total.			
			M.	F.							M.	F.														M.	F.					M.	F.							M.	F.
Tolland		1			1		1	2				1	2	1	3	4	1						1				2				3		2	1								
Andover																																											
Bolton																	3									2	1			1		1										1
Columbia								3				1	2	1	2	3										1				2		1	1							1	
Coventry								6				1	5	1	5	6	2						1	1	1	4	1				2		2		1		3		1	3	2
Ellington		2			2			1				1			3	3							1			1					2		1	1			1			1	
Hebron		1			1			1				1		1	1	2															1		1								
Mansfield	2			1	1			5				4	1	5	2	7	2	3								3	2													1	1
Somers	1			1										1		1	2							2		2	2			2		2				3				3
Stafford	1	1			2			4				1	3	1	5	6		1			1	4		3	1	6	4			5		3	2			3		2	2	3
Union								2				1	1	1	1	2	1									1				2		1	1							
Vernon	2	2	1	2	3		1	17				6	12	8	15	23	1	2			1		3	3		5	5			3		3	1			8	1	1	8	4
Willington		1			1			5				1	4	1	5	6	2									1	1			1		1				1			1	
Totals	6	8	1	4	11		2	46				17	31	21	42	63	14	6			1	1	10	6	5	1	27	17			23	1	18	7		2	1	20	1	6	16	14

CLASS III.—LOCAL DISEASES—Concluded.

Towns in Tolland Co.	Order 4.—Digestive Organs.																			Order 5.—Urinary Organs.										Order 6.—Generative Organs.			Order 7.—Organs of Locomotion.				Order 8.—Integumentary System.				Total for Class III.		
	Gastritis.	Enteritis.	Peritonitis.	Ulceration of Intestines.	Hernia.	Intussusception.	Fistula.	Strict. Œsoph.	Stomach Disease.	Hepatitis.	Jaundice.	Liver Disease.	Spleen Disease.	Total.		Nephritis.	Bright's Disease.	Diabetes.	Gravel.	Cystitis.	Kidney Disease.	Uremia.	Prostatitis.	Total.		Ovarian Dropsy.	Ovarian Tumor.	Disease of Uterus.	Total.	Joint Diseases.	Caries.	Necrosis.	Total.		Phlegmon.	Ulcer.	Tumor.	Skin Diseases.	Total.		Males.	Females.	Total.
														M.	F.									M.	F.								M.	F.					M.	F.			
Tolland	..	..	..	..	..	..	..	..	1	..	..	1	..	2	..	..	1	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	9
Andover	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bolton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5
Columbia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	4	2	6
Coventry	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	4	14
Ellington	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Hebron	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Mansfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7
Somers	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	5	6	11
Stafford	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	12	12	24
Union	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3
Vernon	1	..	..	..	..	..	..	1	..	..	..	1	1	3	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	11	31
Willington	1	1	..	1	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7
Totals	3	1	1	1	1	1	2	1	3	1	1	3	1	9	5	1	5	1	1	1	1	1	1	6	2	1	2	3	1	1	1	3	1	1	1	3	1	1	1	3	76	48	124

CLASS IV.—DEVELOPMENTAL DISEASES.

Towns in Tolland Co.	Order 1.—Of Children. Stillborn.	Premature Birth and Debility.	Cyanosis.	Spina Bifida.	Malformation.	Teething.	Total. M.	Total. F.	Order 2.—Of Women. Metritis.	Childbirth.	Total.	Order 3.—Of Old People. Old Age. M.	Old Age. F.	Order 4.—Of Nutrition. Atrophy and Debility. M.	Atrophy and Debility. F.	Total for Class IV. Males.	Females.	Total.
Tolland	1						1			1	1	2	1			3	2	5
Andover	1							1		1	1	1	1			1	3	4
Bolton		1					1									1		1
Columbia																		
Coventry												1	1			1	1	2
Ellington													1				1	1
Hebron		1					1								1	1	1	2
Mansfield												1	2	1		2	2	4
Somers																		
Stafford		1					1					2				3		3
Union																		
Vernon	6	6	1	1		1	7	8		1	1		3			7	12	19
Willington												2				2		2
Totals	8	9	1	1		1	11	9		3	3	9	9	1	1	21	22	43

CLASS V.—VIOLENT DEATHS.

Towns in Tolland Co.	Order 1.—Accident or Negligence. Fractures.	Wounds.	Burns and Scalds.	Poison.	Drowning.	Accidents.	Railway Injury.	Suffocation.	Otherwise.	Total. M.	Total. F.	Orders 2, 3, 4. Order 3—Homicide. M.	Homicide. F.	Order 4—Suicide. M.	Suicide. F.	Sudden. M.	Sudden. F.	Sudden Cause, unascertained. M.	Sudden Cause, unascertained. F.	Sex not stated.	Total for Class V. Males.	Females.	Total.	Grand Total for All Classes. Males.	Females.	Total.
Tolland					1					1								1	1		2	1	3	14	9	23
Andover																								3	4	7
Bolton			1			1				1	1										1	1	2	6	4	10
Columbia																		2	2		2	2	4	11	6	17
Coventry																		1	1		1	1	2	13	12	25
Ellington				1		1				1	1				1						1	2	3	4	9	13
Hebron						1			1	2									1		2	1	3	6	6	12
Mansfield																			2	1		2	3	12	10	22
Somers						1				1											1		1	8	6	14
Stafford			1			1	1			3				1						1	4		5	23	19	42
Union																								2	4	6
Vernon		1							1	2				1				1			4		4	57	48	105
Willington																		1			1		1	12	9	21
Totals		1	2	1	1	5	1		2	11	2			2	1			6	7	2	19	10	31	171	146	317

Recapitulation of Table 2.

CAUSES OF DEATH.	Hartford Co.	New Haven Co.	New London Co.	Fairfield Co.	Windham Co.	Litchfield Co.	Middlesex Co.	Tolland Co.	Total. 1878.	Total. 1877.	Per Cent. to Total Mortality. 1878.	Per Cent. to Total Mortality. 1877.
Zymotic Diseases.												
Order 1, Miasmatic	416	638	258	325	152	137	129	52	2107	2321	22.51	25.49
" 2, Enthetic	9	4	1	1	...	1	...	4	20	18	.22	.19
" 3, Dietic	7	8	7	6	5	1	1	...	35	41	.37	.46
Total, Class I.	432	650	266	332	157	139	130	56	2162	2380	23.10	26.14
Constitutional Diseases.												
Order 1, Diathetic	72	110	56	69	33	33	31	15	419	394	4.49	4.34
" 2, Tubercular	311	396	233	194	120	91	87	48	1480	1551	15.90	17.03
Total, Class II.	383	506	289	263	153	124	118	63	1899	1945	20.39	21.37
Local Diseases.												
Order 1, Nervous System	216	390	160	180	63	84	87	44	1224	1177	13.09	12.75
" 2, Organs of Circulation	72	113	64	81	35	28	37	25	455	429	4.87	4.92
" 3, Organs of Respiration	145	185	76	120	46	49	35	30	686	782	7.34	8.78
" 4, Organs of Digestion	51	101	38	62	31	23	23	14	343	390	3.67	4.24
" 5, Urinary Organs	54	59	24	27	14	15	12	8	213	187	2.28	2.05
" 6, Generative Organs	4	6	....	4	...	1	2	3	20	36	.22	.39
" 7, Organs of Locomotion	2	2	1	1	...	3	2	...	11	30	.12	.32
" 8, Integumentary System	9	5	2	2	...	3	2	...	23	52	.24	.54
Total, Class III.	553	861	365	477	189	206	200	124	2975	3093	31.83	33.98
Developmental Diseases.												
Order 1, Of Children	60	221	69	77	54	20	19	20	540	552	5.77	6.07
" 2, Of Women	23	5	7	12	2	4	3	3	59	74	.64	.81
" 3, Of Old People	108	113	82	107	40	42	32	18	542	476	5.78	3.23
" 4, Of Nutrition	36	26	20	23	10	2	8	2	127	220	1.36	2.41
Total, Class IV.	227	365	178	219	106	68	62	43	1268	1322	13.55	14.52
Violent Deaths.												
Order 1, Accident	78	109	43	49	13	29	19	13	353	283	3.76	3.10
" 3, Homicide	1	5	....	3	1	2	1	...	13	10	.13	.11
" 4, Suicide	8	17	7	11	3	2	7	3	58	52	.61	.57
Sudden, Cause unascertained	7	5	5	13	...	4	2	...	36	19	.37	.21
Cause not stated	211	44	117	89	65	31	16	15	588	592	6.27	.....
Total, Class V.	305	180	172	165	82	68	45	31	1048	956	11.13	.....
Grand Total	1900	2562	1270	1456	687	605	555	317	9352	9696	100.00	100.00

TABLE 3.

CAUSES OF DEATH BY MONTHS, AGE, AND SEX.

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	DISEASE.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Males.	Females.	Unknown.	Total.
...	...	...	1	...	1	...	...	...	1	1	1	..	Abscess	...	...	...	...	1	1	1	1	1	...	...	...	...	2	3	..	5
7	3	2	6	4	9	6	5	2	3	12	6	..	Accident	8	5	9	4	7	4	4	9	4	9	2	...	...	49	16	..	65
1	...	1	2	...	5	1	...	...	4	4	2	..	Alcoholism	...	...	...	...	4	3	5	8	...	...	...	...	...	15	5	..	20
3	...	1	...	...	2	3	3	...	...	...	...	..	Aneurism	...	...	...	...	...	...	3	3	1	2	...	...	...	10	2	..	12
2	...	...	1	...	...	...	...	...	...	...	...	..	Angina Pectoris	...	...	...	...	...	...	1	1	1	...	...	...	...	2	1	..	3
24	23	26	24	16	21	22	21	18	20	30	22	..	Apoplexy	...	...	...	...	3	22	20	62	56	64	27	12	1	160	107	..	267
2	...	1	...	...	1	2	...	...	3	1	1	..	Ascites	...	...	...	...	...	1	...	4	...	3	2	...	...	7	3	..	10
...	1	1	2	2	1	...	1	1	1	...	...	..	Asthma	...	...	...	2	...	2	1	2	1	1	1	...	...	4	6	..	10
...	1	...	...	...	2	...	...	...	...	...	...	..	Arthritis	...	...	...	...	...	...	1	...	2	...	...	...	...	2	1	..	3
15	17	22	13	28	20	20	21	27	18	14	15	..	Brain, Disease of	43	54	17	13	11	23	16	14	17	21	2	...	...	125	106	..	231
7	2	17	8	13	2	4	5	3	4	16	2	..	Bronchitis	9	8	7	...	1	3	5	3	14	15	15	3	..	33	50	..	83
20	6	12	12	8	5	6	4	8	10	9	10	..	Bright's Disease	...	1	1	4	12	8	13	32	35	15	1	...	...	75	35	..	110
3	1	8	4	3	2	3	...	12	3	4	3	..	Burns and Scalds	2	16	4	4	4	4	...	6	3	...	...	...	...	23	20	..	43
18	19	20	15	21	22	18	28	21	30	14	19	..	Cancer	...	1	1	...	4	16	56	58	54	36	19	...	...	75	170	..	245
1	2	2	...	...	...	...	...	...	...	1	1	..	Carbuncle	...	...	...	1	...	...	1	2	1	1	...	...	...	2	4	..	6
...	...	...	...	1	...	1	...	1	...	...	...	..	Calculus	...	...	...	...	...	...	1	1	1	...	...	...	...	3	...	..	3
3	5	4	3	6	5	6	2	2	5	...	6	..	Cerebro-Spinal Meningitis	4	7	13	6	14	3	...	...	...	...	...	...	...	25	22	..	47
5	6	5	7	5	6	3	4	7	4	5	6	..	Childbirth	...	...	...	10	20	20	12	...	...	...	...	...	...	...	62	..	62
...	...	3	4	3	12	180	145	60	15	...	...	..	Cholera Infantum	326	96	...	...	...	...	...	...	...	...	...	...	...	234	188	..	422
...	...	1	...	...	...	...	1	...	...	...	...	..	Chorea	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	2
136	98	111	123	142	102	99	102	92	100	116	95	..	Consumption	30	28	17	189	332	227	175	120	108	61	9	...	...	572	732	12	1316
...	2	...	...	2	2	5	3	2	...	...	...	..	Colic	4	1	4	...	...	...	3	...	...	5	...	...	...	...	...	...	16
18	12	17	29	20	24	38	22	16	12	30	15	..	Convulsions	140	78	10	8	7	6	4	...	...	...	...	...	...	140	113	.	253
33	12	13	11	10	7	5	8	5	17	25	32	..	Croup	40	100	34	4	...	...	...	...	...	...	...	...	...	92	86	..	178
1	1	1	2	...	2	...	...	...	1	...	1	..	Cyanosis	9	...	...	...	...	...	...	...	...	...	...	...	...	6	3	..	9
...	1	3	1	4	2	5	...	1	1	...	...	..	Cystitis	...	...	...	...	2	2	1	4	5	4	...	...	...	14	4	..	18
12	14	13	9	10	9	14	15	5	12	12	12	..	Debility and Atrophy	35	6	1	...	3	9	8	16	28	29	9	...	...	69	38	..	127

1	4	2	...	2	4	2	3	3	2	1	...	..	Diabetes	...	...	...	4	6	4	2	2	4	1	1	...	..	15	9	..	24
...	3	1	...	1	1	16	19	16	3	...	...	..	Diarrhœa	10	12	7	4	5	...	2	8	2	4	6	...	..	31	29	..	60
70	46	24	30	28	29	16	19	26	70	59	47	..	Diphtheria	31	183	187	43	12	4	4	...	..	...	...	...	..	232	222	10	464
10	18	14	21	11	7	10	6	16	10	18	18	..	Dropsy and Anæmia	6	7	4	3	3	7	22	26	32	32	16	1	..	76	83	..	159
4	2	1	3	4	4	12	10	6	...	2	2	..	Drowned	1	6	7	13	9	6	4	1	3	...	..	...	..	34	16	..	50
1	2	1	1	1	...	11	39	14	15	1	...	..	Dysentery	4	20	7	6	...	...	9	3	9	10	15	3	..	36	50		86
...	...	1	...	...	1	1	...	1	...	1	...	..	Embolism	...	...	...	...	2	1	...	2	...	...	...	...	..	3	2		5
5	1	3	...	4	5	1	9	2	3	5	7	..	Enteritis	7	14	4	2	5	4	3	3	3	...	...	...	..	25	20		45
1	1	1	4	2	5	1	...	...	2	2	1	..	Epilepsy	...	1	2	5	5	4	2	1	...	...	...	...	..	8	12		20
...	...	...	...	...	1	...	...	...	...	...	...	..	Epistaxis	...	...	...	...	1	...	...	...	...	...	...	...	..	...	1		1
8	3	5	6	5	4	3	2	2	8	5	5	..	Erysipelas	14	4	1	3	3	5	7	5	5	5	4	..	..	33	23		56
1	...	...	...	...	...	...	...	...	...	...	1	..	Exposure	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...		2
5	2	2	3	1	3	2	10	10	9	6	1	..	Fever, Intermittent and Congestive	3	5	2	7	4	10	3	1	4	7	8	...	..	28	26		54
...	...	...	...	1	1	1	2	3	2	2	1	..	Fever, Remittent	...	1	2	2	..	1	2	...	2	3	...	...	..	5	8		13
24	13	18	17	16	11	9	27	47	28	23	20	7	Fever, Typhoid	7	16	15	37	86	27	17	19	15	13	8	...	..	140	114	6	260
4	1	6	3	4	6	7	15	12	7	9	4	..	Fever, Typho-Malarial	2	4	3	10	7	10	7	14	13	6	2	...	..	48	30		78
5	6	1	3	2	4	6	4	15	3	6	5	..	Fracture and Contusions	1	1	5	4	11	8	4	9	6	5	6	...	..	48	12		60
1	1	...	...	...	...	...	...	...	...	...	1	..	Frozen	...	...	1	...	1	...	...	...	...	1	...	...	..	3	...		3
4	3	3	5	10	4	2	6	5	...	2	2	..	Gastritis	6	2	...	1	4	2	4	3	9	10	5	...	..	22	24		46
9	...	...	...	3	1	...	...	...	...	...	...	..	Gangrene	...	...	...	...	...	...	...	...	1	1	1	1	..	4	...		4
41	39	34	35	35	30	32	32	16	42	41	33	14	Heart Disease	27	9	7	10	19	36	60	54	85	92	25	...	..	226	198		424
...	...	...	...	...	...	4	1	...	...	...	...	..	Heat, Sunstroke	...	...	1	2	...	1	...	1	...	...	...	...	..	4	1		5
6	...	1	2	3	2	3	7	...	...	1	5	..	Hemorrhage	6	...	...	5	4	6	4	2	1	2	...	...	..	14	16		30
3	...	1	...	...	...	...	4	3	...	1	3	..	Hepatitis	3	...	1	...	...	2	1	...	5	3	...	...	..	5	10		15
1	5	2	...	1	6	1	7	2	4	...	1	..	Hernia	...	1	...	1	5	2	6	9	6	...	...	...	..	18	12		30
...	...	2	1	1	1	2	1	2	...	1	1	..	Homicide	...	...	...	...	4	2	1	2	2	1	...	...	..	10	2		12
2	2	7	2	4	5	9	6	5	4	5	3	..	Hydrocephalus	26	21	6	1	...	...	...	...	...	...	...	...	..	35	19		54
2	1	1	...	...	...	...	...	...	1	1	1	..	Hydrophobia	...	...	...	1	...	3	2	1	...	...	...	...	..	6	1		7
2	4	4	2	2	1	2	5	5	8	4	1	..	Insanity	...	...	...	...	...	3	2	10	12	6	5	2	..	21	19		40
...	1	1	...	1	2	...	...	...	...	...	...	..	Intussusception	1	...	...	...	...	1	1	1	...	...	...	1	..	3	2		5
...	1	...	1	1	1	2	...	3	...	...	2	..	Jaundice	1	...	...	...	...	...	1	...	4	3	1	1	...	..	3	8		11
2	...	...	...	1	...	...	...	1	...	...	1	..	Joint Disease	..	1	1	1	1	...	...	...	...	...	1	...	..	2	3		5
1	4	2	2	...	4	8	...	1	4	6	3	..	Kidney Disease	...	...	...	2	2	4	9	6	4	6	2	...	..	23	12		35
1	...	1	1	2	4	...	...	4	2	...	...	..	Laryngitis	3	3	6	1	...	1	1	...	...	...	...	...	..	10	5		15
...	...	...	...	...	...	1	2	...	...	...	...	..	Lightning	...	...	1	...	1	...	...	1	...	...	...	...	..	3	...		3

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	DISEASE.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Males.	Females.	Unknown.	Total.
7	7	8	8	1	4	5	7	6	4	5	4	..	Liver Disease	4	4	...	...	4	5	9	14	14	7	4	1	..	31	35	..	66
14	12	11	12	11	8	6	6	5	7	10	9	..	Lung Disease	29	11	4	3	8	5	8	8	12	12	1	...	..	53	58	..	111
...	...	...	1	...	...	...	...	...	...	...	...	..	Lupus	...	...	...	...	...	...	...	...	...	1	...	...	..	1	...	..	1
...	2	...	2	5	5	...	1	1	...	2	1	..	Malformation	16	3	...	...	...	..	...	...	...	...	...	...	..	15	4	..	19
1	1	...	3	3	9	2	1	...	...	...	...	..	Measles	4	9	2	2	2	..	...	...	1	...	...	...	..	12	8	..	20
3	2	1	...	4	1	1	1	1	1	1	...	..	Mortification	...	...	...	...	...	...	...	1	5	4	3	3	.	10	6	..	16
9	9	10	20	13	11	18	15	8	19	9	2	..	Meningitis	37	49	16	15	7	6	5	4	1	3	...	...	..	74	69	..	143
...	...	...	1	...	...	...	...	2	...	...	...	..	Necrosis	...	...	...	1	...	1	1	...	...	...	...	...	..	3	...	..	3
...	1	...	...	1	1	...	...	...	...	2	1	..	Nephritis	...	...	...	...	...	1	1	1	2	1	...	...	..	4	2	..	6
40	39	21	30	30	20	15	20	21	10	18	28	..	Not Stated	53	32	31	31	58	27	24	226	...	...	...	...	..	162	120	..	282
60	49	50	49	53	29	43	46	69	52	40	66	..	Old Age	...	...	...	...	...	...	...	...	18	186	283	110	9	238	368	..	606
...	...	2	2	...	...	...	...	...	1	...	1	..	Ovarian Dropsy	...	...	...	...	...	...	1	1	2	1	1	...	...	...	6	..	6
...	2	1	...	...	1	...	1	2	...	...	...	..	Ovarian Tumor	...	...	...	...	2	1	3	1	...	...	...	...	...	...	7	..	7
18	26	26	24	18	25	20	22	16	12	20	25	..	Paralysis	1	1	1	1	...	10	19	25	50	84	48	12	..	115	137	..	252
1	1	2	1	2	...	4	1	2	...	4	...	..	Pericarditis	...	...	3	1	1	1	4	6	1	1	...	...	...	14	4	..	18
11	9	4	4	...	4	7	4	3	6	5	1	..	Peritonitis	2	2	6	12	8	9	6	1	6	4	1	1	..	22	36	..	58
2	1	1	2	...	...	...	...	...	...	3	2	..	Pleurisy	...	1	...	...	...	4	2	2	2	...	...	...	...	6	5	..	11
60	65	75	58	32	27	10	20	13	18	34	46	..	Pneumonia	44	55	16	20	14	45	40	28	65	58	65	6	2	228	230	..	458
...	...	2	...	...	...	4	5	...	6	1	...	..	Poison	...	2	...	...	8	5	1	1	1	...	...	...	...	11	7	..	18
32	20	19	25	30	25	31	32	16	31	8	21	..	Premature Birth and Debility	290	...	...	...	...	...	...	...	...	...	...	...	...	185	105	..	290
...	1	...	...	...	1	1	...	...	...	...	...	..	Pyaemia and Septicaemia	...	...	...	...	2	1	...	...	...	...	...	...	...	2	1	..	3
...	...	...	1	...	...	...	...	1	...	2	1	..	Privation	...	...	1	1	...	...	...	...	...	1	2	...	...	4	1	..	5
...	...	...	...	1	1	2	...	...	...	1	...	..	Prostate, Disease of	...	...	...	...	...	...	...	...	1	2	2	...	...	5	...	..	5
...	...	1	...	...	1	...	3	...	...	...	...	..	Puerperal Convulsions	...	...	...	...	2	3	...	...	...	...	...	...	...	...	5	..	5
...	...	2	...	...	1	...	3	...	...	...	...	..	Purpura	...	...	1	1	...	1	...	...	1	1	...	1	..	4	2	..	6
12	...	4	2	2	1	1	..	2	2	3	8	..	Railroad Accidents	...	...	1	6	11	8	4	3	4	...	...	...	...	29	8	..	37
1	4	3	4	5	3	2	5	6	6	2	2	..	Rheumatism	...	3	2	3	5	1	4	10	8	5	2	...	...	17	26	..	43

30	29	22	25	20	22	19	16	5	9	5	13	..	Scarlatina	15	99	75	24	2	...	...	...	...	...	...	...	..	110	105	..	215
1	3	1	4	5	...	4	7	1	4	...	1	..	Scrofula	...	8	7	6	...	...	2	1	4	...	1	2	..	9	22	..	31
...	1	1	...	...	...	...	...	...	...	...	...	..	Skin Diseases	...	2	...	...	...	...	...	...	...	...	...	...	..	...	2	..	2
...	...	...	...	...	...	2	...	...	...	2	...	..	Spina Bifida	4	...	...	...	...	...	...	...	...	...	...	...	..	1	3	..	4
...	...	1	1	...	...	...	...	...	...	...	...	.	Spine Diseases	...	...	2	...	...	...	...	...	...	...	...	...	..	1	1	..	2
1	...	...	...	...	...	...	...	...	...	1	...	..	Spleen Diseases	...	...	...	...	...	...	1	1	...	...	...	...	..	2	...	..	2
8	6	1	4	3	4	5	6	3	5	1	2	..	Stomach Disease	3	3	2	4	7	6	5	3	3	4	8	...	..	26	22	..	48
1	2	...	...	...	...	1	...	4	1	...	2	..	Stricture and Obstruction Intestine	2	1	1	1	...	...	...	...	2	1	3	...	..	7	4	..	11
...	...	...	...	...	...	1	...	...	...	...	...	..	Stricture Oesophagus	...	...	...	...	...	...	...	1	...	...	...	...	..	1	...	..	1
29	20	31	28	27	21	27	18	20	28	27	24	..	Stillborn	300	...	...	...	...	...	...	...	...	...	...	...	..	180	120	..	300
7	2	2	1	1	5	5	1	5	4	2	1	..	Suddenly	1	2	...	4	4	1	6	4	7	1	6	...	..	27	9	..	36
...	3	2	1	...	2	1	1	...	1	2	...	..	Suffocation	1	5	4	...	1	1	...	1	...	...	...	...	..	5	8	..	13
6	4	5	1	6	3	4	4	6	12	3	1	..	Suicide	...	...	...	2	3	5	7	14	8	11	4	1	..	36	19	..	55
...	...	2	3	...	...	1	...	1	...	...	1	..	Syphilis	3	4	...	1	...	...	...	...	...	...	...	...	..	6	2	..	8
4	3	4	5	4	3	4	11	10	7	2	5	..	Tabes Mesenterica	38	12	1	1	4	4	...	1	...	1	...	...	..	33	29	..	62
1	2	1	...	...	1	1	5	4	...	...	...	..	Teething	10	5	...	...	...	...	...	...	...	...	...	...	..	10	5	..	15
1	1	...	...	1	1	1	3	...	1	1	2	..	Tetanus	4	1	1	1	1	1	...	3	...	...	...	...	..	8	4	..	12
2	1	2	1	1	1	...	...	1	4	1	...	..	Tumor	...	...	1	1	..	1	2	3	2	2	2	...	..	8	6	..	14
...	...	1	...	...	2	1	...	...	1	...	1	..	Ulcer	...	...	...	...	...	...	...	1	4	...	1	...	..	4	2	..	6
3	2	...	2	1	...	1	...	2	...	...	...	..	Ulcer Intestines	...	...	1	1	1	3	...	1	...	2	1	1	..	7	4	..	11
...	...	1	...	1	...	...	2	3	3	1	1	..	Uraemia	...	...	...	3	2	2	2	3	13	...	...	...	..	8	4	..	12
...	1	...	1	1	2	...	1	2	...	...	...	..	Uterus, Disease of	...	...	...	...	2	2	3	1	...	...	...	...	..	...	8	..	8
13	7	16	2	...	4	1	9	3	4	7	2	..	Whooping Cough	35	28	5	...	...	...	...	...	...	...	...	...	..	25	43	..	68
...	...	...	...	...	...	...	2	...	...	...	...	..	Worms	...	2	...	...	...	...	...	...	...	...	...	...	..	1	1	..	2
8	1	3	1	3	1	2	1	2	2	...	2	..	Wounds	1	3	4	4	6	4	1	2	...	...	1	...	..	21	5	..	26
...	...	...	...	...	...	...	29	1	...	...	...	..	Killed by Tornado	2	1	5	8	3	3	5	3	..	...	...	...	..	15	15	..	30

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	DISEASE.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Males.	Females.	Unknown.	Total.
7	7	8	8	1	4	5	7	6	4	5	4	..	Liver Disease	4	4	...	...	4	5	9	14	14	7	4	1	..	31	35	..	66
14	12	11	12	11	8	6	6	5	7	10	9	..	Lung Disease	29	11	4	3	8	5	8	8	12	12	1	...	..	53	58	..	111
...	...	...	1	...	...	...	...	...	...	...	...	..	Lupus	...	...	...	...	...	...	...	...	...	1	...	...	..	1	...	..	1
...	2	...	2	5	5	...	1	1	...	2	1	..	Malformation	16	3	...	...	...	..	...	...	...	...	...	...	..	15	4	..	19
1	1	...	3	3	9	2	1	...	...	...	...	..	Measles	4	9	2	2	2	..	...	...	1	...	...	...	..	12	8	..	20
3	2	1	...	4	1	1	1	1	1	1	...	..	Mortification	...	...	...	...	...	...	...	1	5	4	3	3	.	10	6	..	16
9	9	10	20	13	11	18	15	8	19	9	2	..	Meningitis	37	49	16	15	7	6	5	4	1	3	...	...	..	74	69	..	143
...	...	...	1	...	...	...	...	2	...	...	...	..	Necrosis	...	...	...	1	...	1	1	...	...	...	...	...	..	3	...	..	3
...	1	...	...	1	1	...	...	...	...	2	1	..	Nephritis	...	...	...	...	...	...	1	1	2	1	...	...	..	4	2	..	6
40	39	21	30	30	20	15	20	21	10	18	28	..	Not Stated	53	32	31	31	58	27	24	226	...	...	...	...	..	162	120	..	282
60	49	50	49	53	29	43	46	69	52	40	66	..	Old Age	...	...	...	...	...	...	...	...	18	186	283	110	9	238	368	..	606
...	...	2	2	...	...	...	...	...	1	...	1	..	Ovarian Dropsy	...	...	...	...	...	...	1	1	2	1	1	...	...	...	6	..	6
...	2	1	...	...	1	...	1	2	...	...	...	..	Ovarian Tumor	...	...	...	...	...	2	1	3	1	...	...	...	...	...	7	..	7
18	26	26	24	18	25	20	22	16	12	20	25	..	Paralysis	1	1	1	1	...	10	19	25	50	84	48	12	..	115	137	..	252
1	1	2	1	2	...	4	1	2	...	4	...	..	Pericarditis	...	...	3	1	1	1	4	6	1	1	...	...	...	14	4	..	18
11	9	4	4	...	4	7	4	3	6	5	1	..	Peritonitis	2	2	6	12	8	9	6	1	6	4	1	1	..	22	36	..	58
2	1	1	2	...	...	...	...	...	...	3	2	..	Pleurisy	...	1	...	...	...	4	2	2	2	...	...	...	...	6	5	..	11
60	65	75	58	32	27	10	20	13	18	34	46	..	Pneumonia	44	55	16	20	14	45	40	28	65	58	65	6	2	228	230	..	458
...	...	2	...	...	...	4	5	...	6	1	...	..	Poison	...	2	...	...	8	5	1	1	1	...	...	...	...	11	7	..	18
32	20	19	25	30	25	31	32	16	31	8	21	..	Premature Birth and Debility	290	...	...	...	...	...	...	...	...	...	...	...	..	185	105	..	290
...	1	...	...	...	1	1	...	...	...	...	...	..	Pyaemia and Septicaemia	...	...	...	...	2	1	...	...	...	...	...	...	..	2	1	..	3
...	...	...	1	...	...	...	...	1	...	2	1	..	Privation	...	...	1	1	...	...	...	...	...	1	2	...	..	4	1	..	5
...	...	...	...	1	1	2	...	...	...	1	...	..	Prostate, Disease of	...	...	...	...	...	...	...	...	1	2	2	...	..	5	...	..	5
...	...	1	...	...	1	...	3	...	...	...	...	..	Puerperal Convulsions	...	...	...	...	2	3	...	...	...	...	...	...	..	...	5	..	5
...	...	2	...	...	1	...	3	...	...	...	...	..	Purpura	...	...	1	1	...	1	...	...	...	1	1	...	1	4	2	..	6
12	...	4	2	2	1	1	..	2	2	3	8	..	Railroad Accidents	...	...	1	6	11	8	4	3	4	...	...	...	..	29	8	..	37
1	4	3	4	5	3	2	5	6	6	2	2	..	Rheumatism	...	3	2	3	5	1	4	10	8	5	2	...	..	17	26	..	43

30	29	22	25	20	22	19	16	5	9	5	13	..	Scarlatina	15	99	75	24	2	...	...	...	...	...	...	...	..	110	105	..	215
1	3	1	4	5	...	4	7	1	4	...	1	..	Scrofula	...	8	7	6	...	...	2	1	4	...	1	2	..	9	22	..	31
...	1	1	...	...	...	...	...	...	...	...	...	..	Skin Diseases	...	2	...	...	...	...	...	...	...	...	...	...	..	...	2	..	2
..	...	...	...	...	...	2	...	...	...	2	...	..	Spina Bifida	4	...	..	...	...	...	...	...	...	...	...	...	..	1	3	..	4
...	...	1	1	...	...	...	...	...	...	...	...	.	Spine Diseases	...	...	2	...	...	...	...	...	...	...	...	...	..	1	1	..	2
1	...	...	...	...	...	...	...	...	...	1	...	..	Spleen Diseases	...	...	...	...	...	...	1	1	...	...	...	...	..	2	...	..	2
8	6	1	4	3	4	5	6	3	5	1	2	..	Stomach Disease	3	3	2	4	7	6	5	3	3	4	8	...	..	26	22	..	48
1	2	...	...	...	...	1	...	4	1	...	2	..	Stricture and Obstruction Intestine	2	1	1	1	...	...	...	...	2	1	3	...	..	7	4	..	11
...	...	...	...	...	...	1	...	...	...	...	...	..	Stricture Oesophagus	...	...	...	...	...	...	...	1	...	...	...	...	..	1	...	..	1
29	20	31	28	27	21	27	18	20	28	27	24	..	Stillborn	300	...	...	...	...	...	...	...	...	...	...	...	..	180	120	..	300
7	2	2	1	1	5	5	1	5	4	2	1	..	Suddenly	1	2	...	4	4	1	6	4	7	1	6	...	..	27	9	..	36
...	3	2	1	...	2	1	1	...	1	2	...	..	Suffocation	1	5	4	...	1	1	...	1	...	...	...	...	..	5	8	..	13
6	4	5	1	6	3	4	4	6	12	3	1	..	Suicide	...	...	...	2	3	5	7	14	8	11	4	1	..	36	19	..	55
...	...	2	3	...	...	1	...	1	...	...	1	..	Syphilis	3	4	...	1	...	...	...	...	...	...	...	...	..	6	2	..	8
4	3	4	5	4	3	4	11	10	7	2	5	..	Tabes Mesenterica	38	12	1	1	4	4	...	1	...	1	...	...	..	33	29	..	62
1	2	1	...	...	1	1	5	4	...	...	...	..	Teething	10	5	...	...	...	...	...	...	...	...	...	...	..	10	5	..	15
1	1	...	...	1	1	1	3	...	1	1	2	.	Tetanus	4	1	1	1	1	1	...	3	...	...	...	...	..	8	4	..	12
2	1	2	1	1	1	...	...	1	4	1	...	..	Tumor	...	...	1	1	..	1	2	3	2	2	2	...	..	8	6	..	14
...	...	1	...	...	2	1	...	...	1	...	1	..	Ulcer	...	...	...	...	...	...	...	1	4	...	1	...	..	4	2	..	6
3	2	...	2	1	...	1	...	2	...	...	...	..	Ulcer Intestines	...	...	1	1	1	3	...	1	...	2	1	1	..	7	4	..	11
...	...	1	...	1	...	...	2	3	3	1	1	..	Uraemia	...	...	...	3	2	2	2	3	13	...	...	...	..	8	4	..	12
...	1	...	1	1	2	...	1	2	...	...	...	..	Uterus, Disease of	...	...	...	...	2	2	3	1	...	...	...	...	..	...	8	..	8
13	7	16	2	...	4	1	9	3	4	7	2	..	Whooping Cough	35	28	5	...	...	...	...	...	...	...	...	...	..	25	43	..	68
...	...	...	...	...	...	...	2	...	...	...	...	..	Worms	...	2	...	...	...	...	...	...	...	...	...	...	..	1	1	..	2
8	1	3	1	3	1	2	1	2	2	...	2	..	Wounds	1	3	4	4	6	4	1	2	...	...	1	...	..	21	5	..	26
...	...	...	...	...	...	...	29	1	...	...	...	..	Killed by Tornado	2	1	5	8	3	3	5	3	..	...	...	...	..	15	15	..	30

TABLE 4.

DEATHS IN TOWNS. ALPHABETICAL ARRANGEMENT, DISTINGUISHED BY NATIONALITY, AGE, AND SEX.

NAME OF TOWN.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Unknown.	Birthplace, Connecticut.	Other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Other Foreign Countries.	Unknown.	Males.	Females.	Unknown.	Total.
Andover	2	1	..	..	..	1	..	..	..	..	3	..	..	..	6	..	1	..	..	..	..	3	4	..	7
Ashford	2	1	..	1	1	..	2	..	3	4	..	1	..	..	11	1	..	..	1	2	..	10	5	..	15
Avon	2	..	..	2	2	..	..	..	..	5	2	1	..	..	12	..	1	1	..	..	..	6	8	..	14
Barkhamsted	1	1	1	2	..	1	..	..	1	2	3	1	..	..	11	1	..	..	1	..	..	7	6	..	13
Beacon Falls	..	2	..	..	1	1	..	..	1	..	1	..	..	..	3	3	..	..	..	..	..	..	6	..	6
Berlin	7	1	..	1	4	1	3	..	1	4	5	..	..	..	25	1	1	..	..	..	..	18	9	..	27
Bethany	1	..	..	..	..	..	..	..	1	2	..	1	..	..	5	..	..	..	..	..	..	4	1	..	5
Bethel	8	2	..	3	6	4	2	1	1	4	8	..	..	..	28	5	4	..	..	2	..	16	23	..	39
Bethlehem	2	..	..	..	..	2	..	1	1	..	..	..	..	..	6	..	..	..	..	..	..	5	1	..	6
Bloomfield	..	..	..	1	1	1	1	1	4	4	2	1	..	..	8	..	1	..	1	6	..	7	9	..	16
Bolton	1	2	..	..	..	1	1	..	2	2	1	..	..	..	7	2	1	..	..	..	..	6	4	..	10
Bozrah	3	12	1	..	..	..	1	..	..	1	..	..	..	..	4	..	1	..	1	..	..	2	4	..	6
Branford	12	5	8	2	6	3	4	4	2	2	1	..	..	..	41	3	2	..	1	2	..	22	27	..	49
Bridgeport	94	114	50	22	19	22	20	14	24	16	9	5	..	..	260	60	35	8	5	31	..	208	185	6	399
Bridgewater	..	..	..	..	..	..	..	2	..	..	..	..	4	..	..	..	6	..	..	..	..	..	..	..	3	3	..	6
Bristol	7	3	1	4	5	5	10	3	10	7	3	6	..	..	51	3	7	..	3	..	..	33	31	..	64
Brookfield	1	..	..	4	..	1	2	..	2	3	1	..	..	..	14	..	..	..	..	..	..	7	7	..	14
Brooklyn	6	5	1	1	3	3	1	1	3	5	2	..	..	..	21	5	1	..	..	4	..	16	15	..	31
Burlington	..	..	..	..	..	..	3	1	2	6	4	4	1	..	17	1	1	..	2	..	..	14	7	..	21
Canaan	1	..	1	..	2	1	..	1	2	..	..	1	..	..	7	1	1	..	..	..	..	4	5	..	9
Canterbury	2	1	..	1	2	..	..	2	1	4	4	1	..	..	17	..	1	..	..	..	..	8	10	..	18
Canton	6	8	..	1	..	2	2	3	3	3	5	..	..	..	24	4	2	..	..	3	..	19	14	..	33
Chaplin	1	..	..	..	1	..	..	..	1	1	2	..	..	..	6	..	..	..	..	..	..	3	3	..	6
Chatham	1	..	2	..	3	..	4	2	4	9	3	..	..	..	27	1	..	..	..	..	..	13	15	..	28
Cheshire	1	1	1	2	6	3	..	5	5	5	6	..	..	..	26	3	3	..	..	3	..	16	19	..	35
Chester	5	1	..	1	3	..	2	1	4	2	1	1	..	..	15	2	3	..	1	..	..	13	8	..	21
Clinton	3	..	3	..	..	1	2	3	5	3	4	..	..	..	19	2	..	..	..	3	..	10	14	..	24
Colchester	..	8	18	4	9	1	4	3	4	8	4	1	..	..	48	..	5	1	..	10	..	34	30	..	64
Colebrook	..	..	..	..	..	2	1	1	1	1	3	..	..	..	5	1	1	..	..	2	..	4	5	..	9
Columbia	..	1	2	1	2	3	..	..	1	5	2	..	..	..	13	1	2	1	..	..	..	11	6	..	17
Cornwall	3	1	..	..	..	1	..	1	3	4	2	..	..	..	15	..	..	..	..	..	..	7	8	..	15
Coventry	3	1	..	1	3	..	3	3	2	6	3	..	..	..	14	2	5	..	..	4	..	13	12	..	25
Cromwell	1	7	2	..	2	2	3	1	5	3	4	..	..	..	19	2	3	2	..	4	..	13	17	..	30
Danbury	31	16	5	5	6	10	15	6	6	16	11	4	..	..	71	25	9	1	..	25	..	70	57	4	131
Darien	4	2	..	1	4	..	3	2	2	1	5	1	..	..	16	9	..	..	..	..	..	14	11	..	25
Derby	20	52	26	10	18	13	8	6	12	6	6	1	..	..	130	16	19	3	5	5	..	86	92	..	178
Durham	..	1	..	3	..	..	..	..	3	6	2	..	..	..	10	..	..	..	..	5	..	8	7	..	15
Eastford	1	2	3	..	3	..	2	..	6	4	1	..	1	..	18	4	1	..	..	..	..	12	11	..	23
East Granby	3	..	1	2	2	1	1	..	2	3	1	..	..	..	10	3	3	..	..	..	..	7	9	..	16
East Haddam	3	4	1	..	4	1	2	3	5	9	8	5	1	..	41	3	1	..	1	..	..	28	18	..	46
East Hartford	11	3	2	1	2	4	7	5	7	5	4	4	..	..	44	1	6	1	..	3	..	28	27	..	55
East Haven	9	..	..	..	2	..	2	2	3	8	3	..	..	..	23	..	..	..	4	2	..	18	11	..	29
East Lyme	7	1	1	..	1	5	..	3	4	5	2	2	..	..	18	1	..	..	..	12	..	13	16	2	31
Easton	2	..	..	..	..	..	1	1	2	2	3	1	..	..	12	..	..	..	..	..	..	4	8	..	12
East Windsor	11	..	2	2	2	2	..	..	2	3	5	..	..	..	23	1	1	1	..	3	..	15	14	..	29

TABLE 4.—CONTINUED.

NAME OF TOWN.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Unknown.	Birthplace, Connecticut.	Other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Other Foreign Countries.	Unknown.	Males.	Females.	Unknown.	Total.
Ellington	1	..	..	1	..	..	4	2	2	2	..	1	..	..	9	1	3	..	..	..	..	4	9	..	13
Enfield	19	15	12	17	14	15	8	5	6	8	4	1	1	..	87	5	21	..	4	8	..	43	81	1	125
Essex	2	2	..	2	1	1	1	2	1	1	1	1	..	..	13	2	..	..	..	..	..	10	5	..	15
Fairfield	1	4	2	1	..	4	2	5	6	9	6	1	..	..	35	2	3	..	1	..	..	13	28	..	41
Farmington	5	5	..	3	4	4	4	6	5	5	2	2	..	..	31	6	4	..	1	3	..	19	26	..	45
Franklin	..	2	1	..	..	..	2	1	2	1	..	..	..	..	8	1	..	..	..	..	..	7	2	..	9
Glastonbury	3	2	..	..	..	4	3	5	6	14	6	1	..	..	32	4	1	1	1	5	..	21	23	..	44
Goshen	2	1	..	1	1	..	..	..	1	3	2	..	..	..	9	2	..	..	..	..	..	6	4	1	11
Granby	2	1	6	1	4	3	4	5	4	1	1	..	..	..	27	4	1	..	..	..	..	15	17	..	32
Greenwich	8	4	5	1	5	4	7	4	8	15	10	5	..	..	49	18	4	3	..	2	..	42	34	..	76
Griswold	7	1	2	3	2	..	2	2	2	3	4	..	..	..	20	5	3	1	..	..	..	18	11	..	29
Groton	8	6	..	3	4	3	5	6	6	14	5	2	..	..	50	8	..	2	1	..	..	37	23	1	61
Guilford	4	5	..	4	3	2	..	3	5	5	7	..	..	..	34	3	..	..	..	1	..	18	20	..	38
Haddam	3	1	2	2	1	4	..	4	2	5	2	..	..	..	26	..	..	..	..	..	..	12	14	..	26
Hamden	7	3	2	1	..	4	4	2	7	12	3	..	..	..	27	3	6	..	2	7	..	22	22	1	45
Hampton	..	..	1	3	..	2	1	1	1	1	4	1	..	..	9	5	1	..	..	..	..	6	9	..	15
Hartford	147	80	25	42	75	93	77	41	44	59	28	11	..	34	450	95	140	15	16	10	30	384	366	6	756
Hartland	..	..	..	..	2	1	..	..	1	2	..	..	..	..	*6	..	..	..	..	..	..	3	3	..	6
Harwinton	1	3	..	..	1	2	..	..	..	7	1	..	..	..	14	..	1	..	..	..	..	6	9	..	15
Hebron	1	..	..	..	..	..	..	3	1	3	3	1	..	..	12	..	..	..	..	..	..	6	6	..	12
Huntington	3	3	..	2	2	4	..	1	8	5	2	1	..	..	24	4	2	..	..	1	..	15	16	..	31
Kent	..	..	1	..	..	2	2	1	3	2	2	..	..	..	11	1	..	..	1	..	..	7	6	..	13
Killingly	42	5	4	5	7	8	2	11	5	6	10	1	..	..	75	14	8	..	3	6	..	69	37	..	106
Killingworth	1	..	..	..	..	1	..	..	2	2	2	1	..	..	8	1	..	..	..	..	..	4	5	..	9
Lebanon	..	..	2	2	4	1	1	2	2	4	..	2	..	1	14	7	..	..	..	..	..	8	13	..	21
Ledyard	4	1	..	1	1	2	1	1	3	6	5	..	..	..	25	..	..	..	..	..	..	9	16	..	25
Lisbon	3	..	1	..	2	..	1	..	4	3	..	..	..	..	11	1	..	2	..	..	..	6	8	..	14
Litchfield	8	4	..	2	4	4	1	2	4	3	5	2	..	..	24	6	2	..	1	..	6	16	23	..	39
Lyme	3	1	2	1	1	..	1	2	..	5	1	..	..	..	16	1	..	..	..	..	..	11	6	..	17
Madison	1	..	2	2	5	5	1	2	1	6	1	..	..	..	21	4	..	1	..	..	..	12	14	..	26
Manchester	12	6	1	2	5	9	4	6	5	11	3	1	..	..	*44	3	12	2	4	..	..	38	27	..	65
Mansfield	1	1	..	1	..	2	..	2	1	7	6	1	..	..	19	1	1	..	1	..	..	12	9	1	22
Marlborough	1	..	..	1	..	..	..	2	1	..	2	..	..	..	6	..	1	..	..	..	..	3	4	..	7
Meriden	93	79	33	18	14	38	18	13	16	11	5	4	1	..	275	5	50	6	15	3	10	189	172	..	361
Middlebury	1	..	..	2	..	1	1	1	3	1	1	1	..	..	11	..	..	..	..	..	1	6	6	..	12
Middlefield	..	2	1	..	..	..	1	..	1	1	2	1	..	..	8	..	1	..	..	..	..	2	7	..	9
Middletown	29	21	6	13	17	15	18	31	17	22	13	4	..	..	141	15	25	7	7	6	5	91	115	..	206
Milford	8	5	11	3	5	4	6	6	7	6	8	..	..	..	57	3	4	1	..	..	4	31	38	..	69
Monroe	..	..	..	..	..	..	2	..	1	1	1	1	..	..	5	1	..	..	..	..	..	3	3	..	6
Montville	2	..	..	1	2	..	..	1	..	2	5	1	1	..	14	..	1	..	..	..	..	5	10	..	15
Morris	1	1	1	..	..	1	..	..	2	4	3	..	..	..	13	..	..	..	..	..	..	7	6	..	13
Naugatuck	22	8	1	3	7	..	2	..	3	5	7	1	..	..	45	..	8	3	3	..	..	30	29	..	59
New Britain	40	35	14	11	16	12	15	13	17	7	6	7	..	..	93	23	12	7	4	3	53	97	96	2	195
New Canaan	3	2	1	4	2	2	4	3	8	8	..	..	..	..	23	9	..	..	..	2	1	17	18	..	35
New Fairfield	..	2	..	..	2	..	..	..	6	2	..	..	..	..	11	1	..	..	..	..	..	6	5	1	12
New Hartford	6	10	2	5	6	3	4	..	6	5	3	..	..	..	29	3	7	2	1	1	7	29	21	..	50
New Haven	288	183	60	52	98	95	85	83	88	77	37	7	..	..	750	137	180	15	45	26	..	585	568	..	1153

*Misprint on page 13.

TABLE 4.—CONTINUED.

NAME OF TOWN.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Unknown.	Birthplace, Connecticut.	Other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Other Foreign Countries.	Unknown.	Males.	Females.	Unknown.	Total.
Newington	5	1	1	..	1	1	1	..	4	1	1	2	..	..	15	1	2	..	..	..	..	8	9	1	18
New London	46	23	11	17	16	19	14	14	19	20	5	7	..	..	161	18	17	4	2	9	..	92	100	19	211
New Milford	6	..	1	2	6	4	3	3	1	3	10	2	..	..	23	2	1	..	..	15	..	19	22	..	41
Newtown	5	6	2	..	1	4	5	4	1	2	6	3	..	..	32	7	..	..	..	..	..	21	18	..	39
Norfolk	3	..	1	2	1	..	3	2	3	2	2	1	..	..	13	3	3	..	..	..	1	6	13	1	20
North Branford	..	..	..	1	..	2	1	1	1	1	3	..	..	..	9	..	..	1	..	..	..	6	4	..	10
North Caanan	2	3	3	1	1	3	.	2	2	4	1	..	..	..	19	3	..	..	..	..	..	13	9	..	22
North Haven	6	..	..	..	1	4	..	1	1	6	2	..	..	..	20	..	..	..	1	..	..	7	14	..	21
North Stonington	3	8	12	1	4	3	1	..	2	8	5	1	..	..	45	2	.	..	..	1	..	26	22	..	48
Norwalk	46	19	7	10	24	23	16	19	24	14	12	3	..	..	136	47	20	6	2	6	..	121	95	1	217
Norwich	88	74	30	42	39	39	33	34	35	50	27	5	1	..	365	24	81	3	7	15	2	265	230	2	497
Old Lyme	3	..	..	..	..	2	..	3	..	4	1	..	..	..	10	3	..	..	..	..	..	8	5	..	13
Old Saybrook	2	2	..	..	1	1	2	1	2	2	5	..	..	..	14	3	..	..	1	..	..	7	11	..	18
Orange	10	4	1	2	2	4	2	3	5	7	4	..	..	..	32	6	1	2	3	..	..	19	25	..	44
Oxford	1	1	2	1	..	1	1	4	1	4	2	..	..	..	16	..	2	..	..	..	..	10	8	..	18
Plainfield	7	4	..	1	7	3	3	2	2	3	6	..	..	..	23	15	..	..	..	..	..	23	15	..	38
Plainville	3	2	2	1	..	1	..	1	2	1	1	..	..	..	9	2	1	1	1	..	..	7	7	..	14
Plymouth	4	1	2	2	1	1	..	..	4	1	..	..	..	..	11	1	2	1	1	..	..	8	8	..	16
Pomfret	7	1	..	..	3	5	1	1	4	6	..	..	..	..	21	7	..	..	..	..	..	19	9	..	28
Portland	15	3	1	6	9	1	4	4	8	9	4	2	..	..	46	..	13	..	4	3	..	27	39	..	66
Preston	4	2	1	4	6	3	2	6	5	5	1	1	..	..	..	..	..	..	..	..	40	19	21	..	40
Prospect	..	..	..	..	1	2	1	1	2	..	..	..	..	..	6	..	1	..	..	..	..	5	2	..	7
Putnam	28	16	15	9	9	11	9	9	6	7	2	..	..	..	62	21	6	23	9	..	..	55	63	3	121
Redding	2	2	..	1	..	1	1	2	2	3	2	1	..	..	15	1	1	..	..	..	..	8	9	..	17
Ridgefield	4	2	..	1	1	5	5	..	3	3	5	2	..	..	25	5	1	1	..	..	..	17	14	1	32
Rocky Hill	1	..	..	1	..	3	2	..	3	1	2	..	..	..	9	1	2	..	..	1	..	3	10	..	13
Roxbury	1	..	..	..	..	..	1	2	4	2	2	1	..	..	10	..	3	..	..	..	..	5	8	..	13
Salem	..	..	..	..	1	..	..	1	..	2	3	..	..	..	7	..	..	..	..	..	..	4	3	..	7
Salisbury	4	1	3	1	4	1	6	1	3	3	7	1	..	..	23	10	1	1	..	..	1	19	15	1	35
Saybrook	5	2	..	..	1	..	..	2	1	2	5	2	..	..	17	3	..	..	..	..	..	12	8	..	20
Scotland	1	2	..	1	..	1	1	..	2	1	..	..	..	..	9	..	..	..	..	..	..	3	6	..	9
Seymour	9	3	..	5	4	4	3	2	3	3	1	2	..	..	30	2	2	1	1	..	..	19	18	..	37
Sharon	4	2	..	3	1	1	1	3	2	6	2	..	..	..	14	5	2	..	..	4	..	15	10	..	25
Sherman	3	1	..	..	..	1	2	2	2	3	..	..	..	..	13	1	..	..	..	..	..	9	5	..	14
Simsbury	3	8	1	4	4	2	2	2	3	6	3	..	..	*	33	7	7	3	..	..	..	28	22	..	50
Somers	..	..	2	1	1	1	..	1	1	6	1	..	..	..	11	3	..	..	..	..	..	8	6	..	14
Southbury	2	3	1	1	..	.	2	1	1	2	3	1	..	..	15	2	..	..	..	..	..	12	5	..	17
Southington	14	17	6	3	9	5	5	6	7	8	2	..	..	..	65	5	10	1	..	..	1	48	34	..	82
South Windsor	4	1	3	..	2	..	1	4	3	4	1	..	..	..	20	1	1	..	..	..	1	9	12	2	23
Sprague	8	14	2	7	3	2	3	2	5	3	2	..	..	..	28	5	6	1	1	9	1	29	22	..	51
Stafford	8	4	..	3	6	5	1	2	4	4	5	..	..	..	24	6	6	..	1	5	..	22	19	1	42
Stamford	35	18	10	10	15	17	21	16	10	16	10	2	..	..	121	25	20	2	2	10	..	99	80	1	180
Sterling	3	1	..	..	1	..	..	1	1	..	..	..	..	..	6	1	..	..	..	..	..	4	3	..	7
Stonington	14	9	4	7	7	3	8	3	12	14	6	2	..	..	46	11	12	1	1	18	..	42	47	..	89
Stratford	2	1	..	3	3	1	1	2	4	1	4	1	..	..	14	8	1	..	..	..	..	10	13	..	23
Suffield	3	2	1	4	4	1	2	2	5	5	3	..	..	..	20	3	4	1	1	3	..	20	12	..	32
Thomaston	4	5	4	3	4	4	2	2	1	1	..	..	..	..	25	2	1	1	1	..	..	16	14	..	30

*Twelve killed at Tariffville disaster, ages not given.

TABLE 4.—CONTINUED.

NAME OF TOWN.	Under 1.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	Over 100.	Unknown.	Birthplace, Connecticut.	Other States.	Birthplace, Ireland.	Birthplace, Germany.	Birthplace, England.	Other Foreign Countries.	Unknown.	Males.	Females.	Unknown.	Total.
Thompson	30	15	7	4	7	3	5	4	6	7	2	..	..	..	63	11	4	..	..	12	..	51	38	1	90
Tolland	2	..	..	3	1	1	2	2	5	6	..	1	..	..	14	3	2	1	..	3	..	14	9	..	23
Torrington	7	2	3	3	5	2	5	4	3	5	10	3	..	..	33	5	9	2	3	..	..	30	22	..	52
Trumbull	3	..	4	..	2	1	2	..	3	3	2	..	..	..	18	2	..	..	..	..	..	8	12	.	20
Union	..	..	..	..	..	..	2	1	1	..	2	..	..	..	6	.	..	..	..	..	..	2	4	..	6
Vernon	34	15	4	8	8	6	10	8	6	5	1	..	..	..	70	9	6	12	4	4	..	57	48	..	105
Voluntown	6	1	1	2	1	..	..	1	3	2	5	..	..	..	17	3	..	..	..	2	..	11	11	..	22
Wallingford	8	5	11	14	3	8	10	6	4	9	7	..	..	..	61	7	13	1	2	1	..	44	40	1	85
Warren	1	2	1	2	..	..	..	..	1	..	..	..	..	..	7	.	..	..	..	..	..	5	2	..	7
Washington	3	..	2	1	1	2	1	1	4	..	2	.	..	..	14	1	2	..	..	..	..	8	9	..	17
Waterbury	59	30	9	7	31	16	13	26	19	15	8	1	..	..	137	15	51	9	9	13	..	121	113	..	234
Waterford	3	3	..	1	3	1	1	..	3	4	3	..	..	..	21	1	..	..	..	..	..	9	13	.	22
Watertown	4	1	2	..	2	1	1	5	2	..	..	..	..	..	17	1	..	..	..	..	..	5	13	..	18
Westbrook	..	6	1	..	1	2	1	2	1	4	2	2	..	..	19	3	..	..	..	..	..	9	13	..	22
West Hartford	..	3	2	2	3	2	4	2	3	3	1	..	..	..	19	2	..	1	..	3	..	8	17	..	25
Weston	3	..	..	..	1	1	1	1	2	..	2	..	..	..	10	..	1	..	..	..	..	4	7	..	11
Westport	8	3	1	..	1	2	4	7	8	8	6	3	..	..	39	6	4	2	..	..	..	30	20	1	51
Wethersfield	4	3	3	3	5	..	2	2	3	4	5	1	..	..	31	2	2	..	..	..	..	16	18	1	35
Willington	4	1	..	2	1	1	2	2	1	2	5	..	..	..	15	4	1	1	..	..	..	12	9	..	21
Wilton	1	1	..	..	2	3	4	2	6	8	3	1	..	..	8	1	..	1	..	21	..	12	19	..	31
Winchester	8	11	11	11	3	2	6	10	5	6	6	..	..	..	63	6	7	..	..	3	..	40	38	1	79
Windham	29	20	2	14	12	10	9	10	4	14	2	..	..	..	83	17	7	2	6	11	..	58	66	2	126
Windsor	7	1	1	3	1	3	2	1	1	4	2	..	..	..	20	2	4	..	..	..	..	10	16	..	26
Windsor Locks	5	2	2	4	..	1	6	2	2	6	..	..	..	..	13	5	11	..	1	..	..	13	17	..	30
Wolcott	..	1	..	..	..	..	..	1	1	1	1	.	..	..	5	..	..	..	..	..	..	2	3	..	5
Woodbridge	1	..	..	2	..	2	1	1	1	4	1	..	..	..	10	1	..	1	..	1	..	2	11	..	13
Woodbury	3	..	..	3	2	2	1	5	4	8	1	..	..	..	20	5	..	..	..	4	..	13	13	3	29
Woodstock	1	..	2	5	3	..	..	2	6	7	3	3	..	..	21	6	1	1	..	3	..	13	19	..	32

BIRTHS.

The total number of births reported during the year 1878 was 13,499, not including still births, which are returned with deaths. The most complete return of still births in the State, perhaps, is from New Haven, where a separate blank is provided, on tinted paper, to avoid confusion. This system is in use quite generally in the larger cities.

The returns of births are, as a rule, more incomplete than either those of deaths or marriages. The advantages of registration, it may be, are not so apparent, and it is most decidedly the exception that a child is named within a month after its birth. The record should, however, be promptly made and completed by the addition of the child's name as soon as conveniently obtainable. The provision in the law allowing the registrar a small fee for completing the record of a birth by obtaining the name, when, as is too often the case, it is omitted altogether, has been already of decided service in completing otherwise very imperfect records. Few outside of a registrar's office realize how frequently the information that a complete record affords is sought, and how important and valuable such facts are in the varied business and social relations of life.

The record of vital statistics is indeed as valuable as any of the other public records of a town, and it is as important that they be reliable and complete as that any public records should be; indeed, their interest and value often outlast any other of the facts that are deemed of sufficient importance to be made matters for public record and preservation.

Of these births 7,073 were males, 6,355 females,—an excess of 4,174 over the total number of deaths. The proportion of males to females is 109.74 males to every 100 females, or in each 100 births 50.174 were males, 49.826 females. The mean ratio for the twenty years ending 1876 was 110.44 males to every 100 females; in 1877, 109.18 males to 100 females. The following table shows the ratio in different countries:

France,	for every 100 females,				-	-	105.35	males.
England,	"	"	"	"	-	-	104.00	"
Austria,	"	"	"	"	-	-	106.5	"
Russia,	"	"	"	"	-	-	105.	"
Prussia,	"	"	"	"	-	-	105.4	"
Italy,	"	"	"	"	-	-	106.8	"

Switzerland,	for every	100	females,	-	-	105.0	males.
Sweden,	"	"	"	"	-	105.0	"
Norway,	"	"	"	"	-	105.3	"
Belgium,	"	"	"	"	-	106.9	"
Holland,	"	"	"	"	-	105.7	"

According to the researches of Lund in Denmark, the first years of marriage are more fruitful of male births, and the latter of female, and the first child is, in the greater proportion of instances, a male. If the parties are each less than 25, the predominance of males is very marked,—105 to 50 females. This diminishes until, after fifteen years of married life, nearly an equal ratio exists,—49 males to 47 females. The ratio is then reversed, and soon reaches 95 males to 100 females. These observations extend over a long period of years, and are apparently very carefully made. The relative age of the parties, it is generally agreed, has a decided influence in deciding the sex, which is determined by that of the younger and more vigorous constitution.

There were 124 instances of plurality births—123 of twins, one of triplets—the latter of German parentage.,

There were 33 twin births in Hartford county, 30 in New Haven, 7 in New London, 28 in Fairfield, 12 in Windham, 14 in Litchfield, 7 in Middlesex, 3 in Tolland.

Of illegitimate births there were 128 reported, with about the same ratio of males to females as in the legitimate. They were distributed as follows: Hartford county, 36; New Haven, 25; New London, 17; Fairfield, 23; Windham, 11; Litchfield, 10; Middlesex, 4; Tolland, 2. The number is about the same as in 1876; in 1877 there were 155 reported.

The following table shows the parentage of foreign births. As it is the first published statement of the kind for this State it is impossible to give any comparative statements. The complexity of our population is here indicated, and it would hardly seem possible that so many heterogeneous elements were represented:

COUNTIES.	Irish.	English.	Scotch.	Canadians.	French.	Italians.	Germans.	Swedes.	Danes.	Norwegians.	Welsh.	Swiss.	Poles.	Chinese.
Hartford	532	58	21	20	20	6	88	7	3	1	2	2	2	1
New Haven	1,359	95	10	36	8	2	173	5	1	1	..	..	1	1
New London	314	65	71	165	4	2	56	..	..	..	1	..	1	..
Fairfield	480	65	4	...	3	4	111	8	1	2	2	2	4	..
Windham	190	20	1	336	10	..	10	1	..	..	..	4	..	..
Litchfield	257	22	...	...	20	..	32	3	..	..	..	1	..	..
Middlesex	141	12	2	...	3	2	20	12	.	2	..	1	..	..
Tolland	469	18	...	18	..	..	60	2	2	1	..	..	..	..
Total	3,742	355	109	575	68	16	542	38	7	7	5	10	8	2

Among other nationalities, Russia is represented by 1, the Azores 1, West Indies 4, Spain 1, Portugal 4, Siam 1, Nova Scotia 5, Sandwich Islands 2, Bohemia 1. Nearly all the nationalities of the world are here represented. A large Canadian immigration into the manufacturing towns is shown. These are for the most part French Canadians. There is a small Portuguese colony in New London, and a few in other portions of the State—sailors for the most part.

MARRIAGES.

The number of marriages reported in 1878 was 4,315, a less number than for fourteen years, although the number has not varied half a score for the last three or four years. The pressure of the times, and the difficulties in the way of acquiring even a modest competence, show pretty uniformly in a decreased marriage rate. This is the lowest number reported since 1864, when but 4,107 were reported. Of these, 2,855 were of American birth, 721 foreign, and 674 of mixed nationality.

No marriages are reported from Hampton, Harwinton, New Fairfield, and Wolcott. Bridgewater, Morris, Marlborough, Brookfield, and Lisbon report one each, and Andover, Beacon Falls, Bethany, Burlington, Hartland, Middlefield, Prospect, and Willington report two each.

The number of colored marriages is also considerably less than in any preceding year for some time, in about the same relative proportion of decrease as those of the white population.

The only offset to this decrease in the number of marriages is in the fact of a considerable decrease in the number of divorces, a less number reported—401—than for many years, those already married apparently showing a disposition to live more peaceably.

To obviate complaints relative to confusion in the fees charged for issuing a marrage license, the following form was issued. As the old plates were found to be nearly worn out, an entire change was made in the general appearance of the blank, which is now upon one sheet, with the legal fee clearly printed on the reverse side, so that mistakes are no longer possible.

STATE OF CONNECTICUT.

MARRIAGE LICENSE, valid only in the town where issued.

This certifies that the within named parties have declared their intention of marriage, and have complied with the provisions of the laws of the State of Connecticut relating to the Registration of Marriages.

Attest: ..... Registrar.

Town of..... .....18....

1. Full name of Groom,.....
2. Place of Residence,.....
3. Age, in years,.....
4. Occupation,.....
5. Place of birth, ...
6. Condition,.....
7. Color,.....
8. Nationality of parents,....Father,.....Mother,.....
9. Full name of Bride,.....
10. Maiden name, if widow,.....
11. Place of residence,.....
12. Age, in years,.....
13. Place of birth,.....
14. Condition,.....
15. Color,.....
16. Nationality of parents,.....Father,.....Mother,.....

I hereby certify that Mr.....
and M.....the above named parties, were legally joined in marriage by me at.....
.....this.....day of..... 18....

Attest: ....
.....

At 6 and 14 state whether first, second, third, etc., marriage; also whether widowed or divorced. At 8 and 16 state whether Irish, American, English, German, etc.

[REVERSE.]

TO REGISTRARS.

Registrars issuing a certificate of license for marriage where one of the parties is a minor, without the written consent of the parents or guardian, subject themselves to a fine of one hundred dollars.

FEE FOR ISSUING MARRIAGE LICENSE.

The legal fee for issuing a certificate of license for marriage is FIFTY CENTS.

TO CLERGYMEN AND MAGISTRATES.

This certificate, duly signed, should be returned to the Registrar by the person who joins the parties in marriage, within the first week of the month next succeeding such marriage, under penalty of ten dollars for neglect.

Any person solemnizing a marriage under this license in any other town than that in which it was issued, or joining any persons in marriage without first having received a certificate of license, is liable to a fine not exceeding five hundred dollars, or imprisonment in a common jail not exceeding one year, or both fine and imprisonment.

Sign this certificate of license with name, official title, and residence.

DEATHS.

The number of deaths recorded each year is an index of the annual loss to the State which necessarily results from the ebb and flow of the tide of life. The compensating swing is shown by the birth-rate; the gain, if gain there be, by the excess of births over deaths, and the influx of immigration; the latter, however, does not appear on the registration records. Prosperity is indicated by a high birth-rate and low death-rate, if the other elements in the problem correspond. Security to life, vigorous manhood, and peaceful old age, or the reverse; premature mortality, death at the threshold of life, wasted energies, and burdened age are unfolded in these records of the vital movements of the year. As the death-rate varies in different localities, and different years and

seasons, showing often double or even fivefold the normal rate, the importance of the study of these variations must be obvious, influenced as they are by local conditions.

The value of the sanitary observances of each locality is tested by the comparative freedom it enjoys from the devastations of diseases that should be controlled, and the reasonable expectation it can give of protection from influences that sap life and vigor, but yet over which the individual, however intelligent, has no control. The Austrian minister of commerce said, "Statistics are no longer viewed as a mere theoretical science for the gratification of the curiosity of the learned, since they subserve the practical ends of political society, and lend service to administration as well in determining the value of existing institutions and laws as in weighing measures not yet carried out." The intimate relation between political science or statesmanship and vital statistics is apparent as the varied relations of life to be influenced by legislative enactments alike are influenced by the laws of development and inheritance.

In studying the vital statistics of 1878, the chief effort has been expended in the selection and formation of tables that should present the different facts clearly and distinctly, and yet avoid any unnecessary detail. Some typographical errors in the construction of so many new forms of tabular statement are perhaps unavoidable; a glance at the factors that are credited with a wrong showing will rectify the errors in nearly every case. The first set of tables showing causes of death gives the cause for each death in the towns which are arranged by counties. By this table the manifestations of disease will be seen to fluctuate greatly from year to year; the same causes do not produce the annual mortality each year. There are, of course, certain endemic forms that appear from year to year, like consumption for instance, which is about as uniformly distributed as any one disease, but for the most part the causes vary very decidedly.

The value of this table will increase from year to year, and it forms indeed a very important item in the sanitary history of each town. These facts are yearly recorded and gathered, and by this means they are utilized to teach many an important lesson. But little attempt is made to draw inferences from these tables this year, as the exact basis of the census will render future calculations more valuable, and, indeed, scant time was left after constructing, with only general models, these comprehensive tables. The second

shows the age, time, and sex, with reference to each disease; for convenience of reference the diseases are arranged alphabetically. In the last table, the nationality, age, time, and sex of those dying in each town are shown, the towns arranged alphabetically.

The year was not characterized by the existence of any general epidemic, but localized epidemics of diphtheria, scarlet fever, and malarial fevers were very common. The greater proportion of deaths from these causes occurred in comparatively a few towns. Scarlet fever was more prevalent in the first quarter of the year, diphtheria in the third and fourth. There were some unusual causes reported. Mumps is credited with one death, but it was by metastasis to the glands about the windpipe, which, becoming enlarged, caused suffocation.

Bleeding at the nose, base ball, acute splenic fever, and lupus of the face are each credited with one death. Yellow fever was reported, but the death occurred at sea and the burial also; the captain of a ship imprudently landed at a fever-stricken port. The unusual number of deaths from accidents has already been alluded to. Two deaths are reported from exposure, and three from freezing, and three from lightning. Stricture of the œsophagus is reported in one case. The following table shows the deaths in each quarter:

From January to March,	2,385
From April to June,	2,176
From July to September,	2,586
From October to December,	2,157
Not stated,	48
	9,352

The approximate ages are shown in the following statement:

Under 1,	1,074	
From 1 to 5,	1,037	
Total infantile,		2,741
From 5 to 10,	565	
From 10 to 20,	674	
Total,		1,239
From 20 to 30,	814	
From 30 to 40,	772	
From 40 to 50,	674	
From 50 to 60,	689	
Total,		2,949

From 60 to 70,	773	
From 70 to 80,	868	
Over 80,	734	
Total old age,		2,375
Age not stated,		48
		9,352

The infantile mortality is about the usual ratio, nearly thirty per cent., which does very well for human beings, but wouldn't do at all for sheep or cattle if the essential conditions of their vitality were so disregarded. The greater proportion of deaths occurs during the first twelve months, and disorders of nutrition are almost invariably the cause, although meningitis, convulsions, and brain disease are credited apparently with a large percentage.

The deaths during the third period represent the greatest loss to the State, as these are the producers, so to speak, who, in addition to self-support, are accumulating or supporting others. As will be seen by reference to the tables, the deaths from consumption and typhoid fever fall heaviest among this class.

The nationality is not quite so complicated as that of births, although decidedly heterogeneous. A much larger proportion are born within this State, and with the mixed population the birthplace is not so generally stated as in the case of births. The following statement shows the proportion:

Birthplace, Connecticut,	6,384
" Other States,	970
" Ireland,	946
" England,	398
" Germany,	175
" Other Countries,	314
" not stated,	165

The Canadians are proportionately as well represented as in the nativity of births, indicating a longer residence.

Errata, page 56.—Consumption, age not stated, 20; disease of brain, month not stated, 1, should be added.——Debility and atrophy, read 22 instead of 29, from '70 to '80, and 58 females instead of 38, making total 137. Page 27, footing of 5th column, read 13 instead of 70.

General Walker draws the following conclusions concerning the mortality among foreigners:

"Among the Irish, a marked liability to general constitutional diseases, including consumption and Bright's disease of the kidneys, with exemption comparatively from diseases of the febrile group." In this State the mortality from consumption in the factory towns among the operatives, is well marked, especially among the younger women. The change to indoor employment, with close restraint, and dust laden atmosphere manifests its effects after a comparatively short time.

"Among the Germans, a reduced mortality from general constitutional diseases, and a decided liability to the febrile group, otherwise a general uniformity,—no undue prevalence of one group.

Among the English and Welsh, a liability to diseases of the nervous, circulatory, digestive, and integumentary systems,—comparative immunity from general constitutional diseases. Special forms scarlet fever, diphtheria, croup, whooping-cough, erysipelas, apoplexy, and paralysis are most fatal.

Among the Swedes, Norwegians, and Danes, a marked liability to diseases of the digestive system especially dysentery, diarrhea, and enteritis, and extraordinary mortality from the febrile group, immunity from deaths from general constitutional diseases, and from those of the circulatory, nervous, urinary, and integumentary systems.

Among the Scotch an evenness to the distribution among the several groups within marked, exception only of diseases of the nervous system, and of the organs of locomotion, cancer, paralysis, measles, and whooping cough, the most marked, immunity, small pox, scrofula, and the fevers.

Among the French the same evenness as in the Scotch, with more irregularity among the specific diseases than in case of the Scotch.

LAWS

CONCERNING THE REGISTRATION OF

BIRTHS, MARRIAGES, AND DEATHS.

REGISTRATION LAWS.*

It shall be the duty of the State Board of Health to have the general supervision of the State system of registration of births, marriages, and deaths. Said board shall prepare the necessary methods and forms for obtaining and preserving such records, and to insure the faithful registration of the same in the several counties, and in the central bureau of vital statistics at the capital of the State. The said Board of Health shall recommend such forms and amendments of law as shall be deemed to be necessary for the thorough organization and efficiency of the registration of vital statistics throughout the State. The secretary of said Board of Health shall be the superintendent of registration of vital statistics. As supervised by the said board, the clerical duties and safe keeping of the bureau of vital statistics thus created shall be provided for by the Comptroller of the State, who shall also provide and furnish such apartments and stationery as said board shall require in the discharge of its duties. That the said board, on or before the first day of December in each year, shall make a report in writing to the Governor, upon the vital statistics and the sanitary condition and prospects of the State. †

SECTION 1. Every registrar of births, marriages, and deaths shall hold office for one year from the first Monday in January next succeeding his appointment, and until his successor is appointed and qualified.

SEC. 2. The registrar shall ascertain, as accurately as he can, all the births, marriages, and deaths occurring in his town, and record the same in a book or books kept by him for that purpose, in such form and with such particulars as shall be prescribed by law. He shall give licenses to marry, according to the provisions of law, and shall make and perfect all records of the birth of any child born in his town. He shall record in the books furnished

* The following provisions are compiled from the unrepealed portions of the different statutes.

† January Session, 1878.

by the Bureau of vital statistics such facts concerning the births, marriages, and deaths in his town as may be therein required; and he shall amend his records as he may discover omissions or mistakes therein; annually, on or before the twenty-fifth day of January, shall send the superintendent of vital statistics an attested abstract of said records for the year next preceding the first day of said January, which shall be made in such form as shall be prescribed by said superintendent, and shall deposit a true copy thereof with the town clerk.

SEC. 3. Every physician or midwife, who shall have professional charge of the mother at the birth of any child, and every attendant who may act as midwife at such a time, where no physician or midwife is employed, shall, during the first week of the month next succeeding such birth, furnish the registrar of the town wherein such birth may have taken place a certificate signed by such physician, midwife, or attendant, stating, from the best information which the signer of said certificate can obtain, the facts required by the Bureau of Vital Statistics.

AN ACT CONCERNING THE REGISTRATION OF BIRTHS, MARRIAGES, AND DEATHS.

SECTION 1. The registrar, for completing each record of birth by inserting the full name of the child, shall receive from the town ten cents, and for ascertaining, recording, and indexing each birth of which no certificate has been furnished, fifty cents.

SEC. 2. Every physician residing without the town wherein a birth or death occurred under his charge shall make return thereof to the registrar of such town, and he shall receive therefor from the registrar an order on the treasurer of such town for the fee prescribed by law.

SEC. 3. No deceased person shall be buried in any town having an incorporated city within its limits until a burial permit, stating the place of burial and that the certificate of death required by law has been returned and recorded, has been given by the registrar, who upon receipt of such certificate shall issue such permit; and upon application, when permits are required, the attending physician of the deceased, and the coroner in case of an inquest, shall give such certificate; or if there be no attending physician, or his certificate cannot be obtained early enough, or where immediate burial is required, any member of the local board of health, or any physician employed to have charge of the poor

of said town or city, shall give such certificate to the best of his knowledge and belief, and the registrar shall record the place of any burial other than in a public cemetery, and for each permit shall receive twenty-five cents from the town.

SEC. 4. In all towns the secretary or committee of each cemetery association shall report to the registrar of the town in which such cemetery is situated the name of the sexton at present in charge of such cemetery, and of any change hereafter.

SEC. 5. Every person having charge of any burial place shall during the first week of every month return a list, for which he shall receive fifty cents, of all the interments, disinterments, and removals made by him during the next preceding month, with the date thereof to the registrar of the town, who shall record the same in a book to be furnished by the bureau of vital statistics.

SEC. 6. Every person violating any of the provisions of this act shall be punished by a fine not exceeding twenty-five dollars.

SEC. 7. All acts and parts of acts inconsistent herewith are hereby repealed.

Approved, March 28, 1879.

AN ACT RELATING TO RETURNS OF DIVORCES.

SECTION 1. The returns of divorces required of clerks of the superior court to the State librarian, by section three, part sixteen, chapter one, title three of the general statutes, shall hereafter be made to the secretary of the State board of health, which returns shall be tabulated and published in the annual report of said board.

SEC. 2. This act shall take effect from its passage.

Approved, March 28, 1879.

TOWN OR CITY BY-LAWS.

Any town or city may enact by-laws, not contrary to law, more effectually to obtain a perfect registration of births, marriages, and deaths; and the registrar of the town in which such by-laws may be enacted shall execute their provisions under the same oath and penalty as if they were the statute laws of the State.

FEES.

Registrars of births, marriages, and deaths shall receive for ascertaining and recording each birth, marriage, or death ten

cents; for issuing a certificate of license for marriage, fifty cents; for making an abstract, two dollars; for each name on such abstract over two hundred, two cents.

No person shall open any grave for the disinterment of the body of any deceased person, in any public or private cemetery or burial-place, or disinter or remove such dead body from the town in which the death took place, without having procured from the registrar a permit therefor.—Feb. 28, 1877.

DISINTERMENTS.

On the receipt by the registrar of a certificate of death, properly made in the form furnished by the superintendent of vital statistics, the registrar shall issue a permit for the disinterment or removal of the body of any deceased person, stating therein the locality of the interment, disinterment, or removal. No permit for the disinterment of the body of any deceased person during the months of June, July, August, or September shall be issued, except when required for the purposes of a legal investigation.

Every registrar of births, marriages, and deaths shall receive for issuing each permit as herein provided the sum of twenty-five cents.—Feb. 28, 1877.

RETURNS OF BIRTHS AND DEATHS.*

Duties of Persons who Shall Make Returns of Births and Deaths to the Registrars.

BIRTHS.

Physicians or midwifes, or any person acting as midwife at the birth of a child, should make return of the same, upon the blanks furnished by the Registrar, within the first week of the month next succeeding such birth, signed by the person making the returns, stating the facts therein required from the best information which the signer can obtain. Each birth should be promptly reported, and the record of the name inserted afterwards. Parents should be instructed to report the name to the physician or registrar as soon as determined. A provision is made for a fee for the registrar on completion of an imperfect record.

DEATHS.

It is the duty of the attending physician to report on the blanks furnished by the registrar each death, with all the facts required

* The following suggestions concerning the provisions of the registration laws are given in reply to questions that have been submitted.

by law. In cities, this certificate of death should be in the hands of the registrar before a burial permit is issued. There is no other way to secure complete returns of deaths in populous places than by the system of burial permits. The testimony is unanimous on this point. By reference to the bulletins of the National Health Board it will be seen that the cities which do not require a burial permit previous to interment are rapidly becoming exceptional. The attention of physicians is respectfully urged to the requirement for promptly filling out certificates of death. A little care on their part will save a great deal of unnecessary friction. If the cause of death be written in by the physician, and the certificate signed by him, the other facts can be readily filled out by the undertaker.

It is the duty of the physician to sign the certificate of death *forthwith*. The friends of the deceased should secure from the attending physician as soon as may be after death the certificate required by law, and furnish it to the registrar, who shall then issue the permit for burial. Proper respect for the dead demands at least that much attention be paid to their memory. The friends of the deceased are the proper persons to arrange this matter, to see that the facts concerning the last event in life about which the State concerns itself with relation to each citizen be correctly stated. The business and social elements involved also justify the utmost precision and care. Protection of life and prevention of crime are also involved in this transaction.

Where burial permits are not required, the physician should return the certificates of death each month to fulfill the requirements of the law. Negligence here is by far too common.

COMPENSATION.

The fee for returning the certificates of birth and death is twenty-five cents. The penalty for violation or non-compliance with the registration laws relating to returns of births and deaths, is not less than ten dollars, nor more than twenty-five dollars.

DUTIES OF PERSONS BEFORE WHOM MARRIAGES MAY BE SOLEMNIZED.

AUTHORITY AND ITS LIMITATIONS.

All judges, justices of the peace, and ordained or licensed clergymen belonging to this State or any other State, so long as they continue in the work of the ministry, may join persons in marriage,

and all marriages attempted to be celebrated by any other person shall be void; but all marriages which shall be solemnized according to the forms and usages of any religious denomination in this State shall be valid.

Marriage within certain degrees of consanguinity is by law declared void.

CERTIFICATE OF LICENSE FOR MARRIAGE REQUIRED PREVIOUSLY TO THE CEREMONY.

No clergyman or magistrate is authorized to solemnize a marriage until a certificate of license is first delivered to him, under penalty of a fine of not more than five hundred dollars, or imprisonment, one or both. The marriage license can be used only in the town where it was issued; if used in any other town, the officiating clergyman or magistrate is liable to a fine of not less than one hundred dollars, or imprisonment, one or both.

RECORD AND RETURN REQUIRED.

Every clergyman or magistrate is required by law to return to the Registrar, within the first week of the month next ensuing, the license certificates, with the fact, time, and place of each marriage certified thereon for all marriages celebrated by him during the month preceding, under a penalty of ten dollars for each omission.

The certificates should be signed with name and official title.

LAWS CONCERNING MARRIAGE.

(General Statutes, Title XIV.)

Chap. I.

Section 1. Marriage between certain relatives prohibited.

Sec. 2. No persons shall be married until one of them shall inform the registrar of the town in which the marriage is to be celebrated, or in case of his inability the town clerk, of the name, age, color, occupation, birth-place, residence, and condition (whether single, widowed, or divorced) of each. Such registrar or town clerk shall thereupon issue his certificate that the parties therein named have complied with the provisions of this section, which

certificate shall be a license to any person authorized to celebrate marriage to join in marriage within said town only the parties therein named; but no such certificate shall be issued if either of the parties is a minor under the control of parent or guardian, until such parent or guardian shall give to the registrar or town clerk his written consent; and any registrar or town clerk who shall knowingly issue such certificate without such consent shall forfeit to the State one hundred dollars. And any person who shall join any persons in marriage without having received such certificate shall forfeit one hundred dollars.

SEC. 3. Every person who shall join any person in marriage shall certify upon the license certificate the fact, time, and place of such marriage, and return it to the registrar of the town where it was issued, upon or during the first week of the month next succeeding such marriage, and upon failure thereof shall forfeit ten dollars. The penalties for joining persons in marriage in violation of this and the preceding section shall be paid to the town where the offense is committed, and the registrar shall sue therefor.

SEC. 4. The certificates required by the preceding sections of this chapter shall be *prima facie* evidence of the facts therein stated.

SEC. 5. All judges, justices of the peace, and ordained or licensed clergymen belonging to this State or any other State, as long as they continue in the work of the ministry, may join persons in marriage; and all marriages attempted to be celebrated by any other person shall be void; but all marriages and rites which shall be solemnized according to the forms and usages of any religious denomination in the State shall be valid.

TITLE 20. CHAP. II.

SEC. 17. Every person who shall knowingly publish a false and fictitious notice of any birth, marriage, or death shall be fined not more than one hundred dollars, or imprisoned not more than six months.

Chap. VII.

SEC. 2. Penalty for bigamy: imprisonment in State Prison not more than five years.

SEC. 3. Every man and woman who shall marry within any of the degrees of kindred specified in the first section Chapter I, Title XIV, shall be imprisoned in the State Prison not less than two nor more than five years.

SEC. 21. Whoever undertakes to join persons in marriage, knowing that he is not authorized so to do, shall be fined not more than five hundred dollars, or imprisoned not more than one year, or both.

DUTIES OF REGISTRARS.

The registrar is the executive officer in each town for the registration laws, and it is his duty to see that they are complied with. It is his duty to make his record as complete as he can. Special provision is made by the act of 1879 for the completion of returns of births by securing the name of the child. The records of births are of little worth without the name.

In cities he is to issue burial permits when required by law, and also permits for removal from one town to another. In case of disinterment or removal from one cemetery to another in the same town a permit is not required.

He shall record the facts required by law concerning births, marriages, and deaths in the record books furnished by the State, and should refuse to receive a certificate, glaringly defective, as a satisfactory performance of the returns required by law. Where the required facts are manifestly unobtainable, of course a virtue must be made of necessity, and the incomplete returns accepted.

It is the duty of the registrar to issue marriage licenses on receiving a declaration of intention of marriage from one of the parties, and to record all marriages returned to him as solemnized in his town. In case of his inability the town clerk shall perform these duties.—*General Statutes, Title 3, Part V, Sec. 2.* The registrar is forbidden by law, under penalty of one hundred dollars, to issue a marriage license when either of the parties is a minor, under the control of a parent or guardian, unless such parent or guardian shall give to the registrar his written consent.

DUTIES OF SEXTONS.

Every person having in charge a burial place shall return to the registrar a monthly list of all interments, disinterments, and removals, in case there be any during the month. For such list he is entitled to a fee of fifty cents from the town.

CONTENTS OF REGISTRATION REPORT.