

REPORT
OF THE
FOURTH SANITARY INSPECTION DISTRICT.

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Sanitary Inspector.

BOUNDARIES.—*The Fourth District, comprising the Fourth Ward, is bounded by Chatham, Catharine, and South Street, Peck Slip, Ferry, and Spruce Streets. Its average length and breadth are respectively about 1,900 and 1,600 feet.*

TOPOGRAPHY.—Deducting the surface occupied by streets, &c., a superficies remains of about 2,240,000 square feet, or about 8,227 square rods, equal to 896 building lots 25×100 feet. The soil is sandy and porous. About one-fifth of the entire area is artificial, having been filled in at a remote period. It includes a depressed space near its western border, formerly known as *Beekman's Swamp*, which contains about 100,000 square feet, and still retains its paludal designation among the leather dealers by whose places of business it is now chiefly occupied.

The northeast and the northwest corners are the most elevated points, each being about thirty-six feet above high-water mark. From the former, the ground slopes rapidly south and west. From the latter, the slope is by a somewhat abrupt declivity, south and east. The average elevation of the district above high-water mark is about sixteen feet. Its natural drainage is good, as the ground, except in the vicinity of the river, is generally sloping, the declivity being steepest in those streets which run from Chatham to South.

The following named streets and parts of streets have no sewers within the boundaries of this ward: East Broadway, Henry, Hague, Chestnut, New Chambers, South, Front, Water, Cherry from Catharine to Roosevelt, Pearl from William to Bowery, Madison from Pearl to Roosevelt, Oliver from Chatham to Madison, Frankfort from Cliff to Bowery.

All the sewers empty into the East River below high-water mark; for about one-half their entire length they are swept out by the reflux tide.*

Of the 714 buildings classed as tenant-houses, less than one-half were found to have a waste-pipe or drain connected directly with the sewer. Where this is wanting, liquid refuse is emptied on the sidewalk or into the street, or in some instances into sinks in the domiciles communicating with a common pipe which discharges its contents into the open gutter to run perhaps hundreds of feet, giving forth the most noisome exhalations, and uniting its fetid streams with numerous others from similar sources, before reaching its subterranean destination.

Slops from rear buildings of such premises are usually emptied into a shallow gutter cut in the flagging and extending from the yard, or space between front and rear buildings, to the street. This is often clogged up by semi-fluid filth, so that the alley and those parts of the yard through which it runs are not unfrequently overflowed and submerged to the depth of several inches.

There are more than four hundred families in this district whose homes can only be reached by wading through a disgusting deposit of filthy refuse. In some instances, a staging of plank, elevated a few inches above the surface, is constructed through the alleys. This affords to the residents the advantage of a dry walk, but in a sanitary point of view its influence is scarcely favorable, since it prevents the removal of the offensive matters beneath.

I cannot report favorably on the condition of the thoroughfares in my district. Belgian pavement has been laid in Chatham, New Bowery, New Chambers, and South Streets, and in part of Pearl Street. All the other streets have the cobble-stone pavement, which in most instances is in bad condition, and in all is very difficult to keep clean. As a sanitary measure alone, an improved pavement is greatly needed in all these densely-populated streets. It is hardly necessary to add that a thorough cleansing is equally required.

I have indicated on the large map which accompanies this report, the localities in which accumulations of street-filth were observed at the time of inspection. From this it appears that less than one-third of the entire street surface was in a tolerably cleanly condition, while of the cobble-stone pavement less than one-sixth part was clean. Much of the latter, in fact, never is clean, for the filth lodging in the interstices of its

* The original water-line is copied by permission from a new topographical map by Gen. E. L. VIELÉ, whose courtesy I take this opportunity to acknowledge.

surface is never wholly removed. Besides, it is often depressed or worn into deep ruts, which furnish receptacles for both solid and fluid matters of the most offensive character.

I think there is no more efficient means of cleansing such streets than by directing a stream of water over successive portions of their surface, thus washing the filthy deposit into the gutters and thence into the sewers.

Courts and alleys are numerous, the latter generally narrow, averaging less than three feet in width, where they form conduits for the drainage from rear houses; they are uniformly in bad condition.

The entire number of buildings in this district is 1,507.

Classified according to the purposes for which they are used :

- 770 are occupied chiefly or wholly as residences.
 * 682 “ “ “ for business purposes.
 8 are Churches and Schools.
 47 are Stables.

Classified according to the material of which they are constructed :

- 1,394 are built of brick, stone, or iron.
 113 “ wood.

Classified according to position :

- 1,342 front on the street.
 165 are rear houses.
 Of the 165 rear buildings,
 108 are Tenant-houses.
 20 are occupied for business purposes.
 37 are Stables.

TENANT AND CROWDED HOUSES.—Under this head I have included : 1st. All tenant-houses built as such; and, 2d. All those used chiefly or wholly as residences in which the occupied space gives a *pro rata* of less than 800 cubic feet to each inhabitant, without reference to the number of families or the population, or to the original design or construction of the buildings. The total of these is 714, of which 656 are brick and 58 are wood.

Of these 242 were built as tenant-houses and divided into domiciles.

Of these 472 were originally designed for occupancy by a single family or for business purposes.

* Many of these have one or more families residing in them.

The first class is sub-divided as follows in accordance with the number of domiciles :

| | | | |
|---|----|--|--|
| Of those having 2 domiciles there are 8 | | | |
| “ “ 3 “ “ | 16 | | |
| “ “ 4 “ “ | 33 | | |
| “ “ 5 “ “ | 14 | | |
| “ “ 6 “ “ | 44 | | |
| “ “ 7 “ “ | 15 | | |
| “ “ 8 “ “ | 28 | | |
| “ “ 9 “ “ | 11 | | |
| “ “ 10 “ “ | 25 | | |
| “ “ 11 “ “ | 3 | | |
| “ “ 12 “ “ | 10 | | |
| “ “ 13 “ “ | 2 | | |
| “ “ 14 “ “ | 4 | | |
| “ “ 15 “ “ | 1 | | |
| “ “ 16 “ “ | 12 | | |
| “ “ 17 “ “ | 1 | | |
| “ “ 18 “ “ | 2 | | |
| “ “ 20 “ “ | 5 | | |
| “ 20 to 50 “ “ | 6 | | |
| “ 50 to 100 “ “ | 1 | | |
| “ over 100 “ “ | 1 | | |

The whole number of domiciles in houses of this class is 2,119.

The average number of domiciles in each house of this class is about $8\frac{3}{4}$.

Both classes together are subdivided in accordance with the number of families occupying each house at the time of inspection :

| | | | |
|---|----|--|--|
| Of those occupied by 1 family there were 24 | | | |
| “ “ 2 “ “ | 66 | | |
| “ “ 3 “ “ | 75 | | |
| “ “ 4 “ “ | 69 | | |
| “ “ 5 “ “ | 49 | | |
| “ “ 6 “ “ | 80 | | |
| “ “ 7 “ “ | 42 | | |
| “ “ 8 “ “ | 40 | | |
| “ “ 9 “ “ | 17 | | |
| “ “ 10 “ “ | 29 | | |
| “ “ 11 “ “ | 4 | | |

| | | | |
|--|---|---|-----|
| Of those occupied by 12 families there were 12 | | | |
| “ “ 13 | “ | “ | 2 |
| “ “ 14 | “ | “ | 4 |
| “ “ 15 | “ | “ | 1 |
| “ “ 16 | “ | “ | 12 |
| “ “ 17 | “ | “ | 1 |
| “ “ 18 | “ | “ | 1 |
| “ “ 19 | “ | “ | 1 |
| 20 and less than 50 | “ | “ | 6 |
| 50 and less than 100 | “ | “ | 1 |
| over 100 | “ | “ | 1 |
| not ascertained | “ | “ | 177 |

The average population of this class of houses is about 28.

DESCRIPTION OF AN ORDINARY TENANT-HOUSE.—As an example of an ordinary tenant-house, I select one from James Street for description. It is a brick building five stories high. A door of entrance and a liquor store occupy the front of the first story. Entering a hall $4\frac{1}{2}$ feet wide, we grope our way up a steep stair-case $2\frac{1}{2}$ feet wide, which is perfectly dark, and reach the second-story landing, from which open four doors communicating with the same number of domiciles.

Calling at the first of these we enter a room 14×12 feet with ceiling 8 feet high, having on one side two moderate-sized windows. The small fire-place is closed, and a stove exhausts rapidly the scanty atmospheric supply which finds its way into the apartment through crevices of the door and windows. We observe that a pungent odor of coal-gas pervades the apartment.

Opening into this room is another, having an area of 9×12 feet, with the same height of ceiling as the former. It has no other opening than the door of communication, and of course possesses no means whatever of efficient ventilation. Looking into this we see two beds beside a quantity of bedding on the floor between them, indicating that this is the dormitory of half a dozen persons. A sickening and stifling odor, most offensive to the unaccustomed senses, pervades this apartment and poisons the atmosphere inhaled by the residents.

The simple fact that this is the abode of six persons might be a sufficient explanation of the latter phenomenon; but when we recollect that they belong to a class who attribute most of their physical ills to a cause, the exact reverse of that to which they are generally due, viz., to exposure to the external atmosphere, and whose sanitary creed teaches them to exclude it from their apartments as far as possible, we can only

wonder that the mephitic gases generated and concentrated in these abodes do not destroy health and life even more speedily than they appear to do.

We find in this domicile a *pro rata* of about 370 cubic feet to each occupant. At the time of visit, the mother and two small children are the only members of the family present. The latter we find to be types of a class. Although they have no form of active disease present, they are strumous, debilitated, and lacking in muscular development. We notice that the conjunctiva is inflamed, and learn without surprise that every member of the family has been affected with ophthalmia. The mucous membrane of the eyes as well as of the air-passages resents the constant irritation of smoke and dust.

The remaining domiciles are counterparts of the first as to arrangement and condition, and almost so as regards their occupants. The halls are practically destitute of ventilation. The occasional opening of the door of entrance below, or of those of the domiciles above, scarcely has any favorable influence on the condition of the atmosphere. From the latter sources, indeed, the halls are constantly filled with noisome and fetid exhalations. Their floors are washed occasionally though rarely, but the walls frequently remain for years without white-washing or cleansing. Wherever the hand comes in contact with them they impart a sticky or pasty sensation; and when scraped, an actual deposit of filth is brought away.

Pursuing our investigations, we next examine the rear of the premises:

Through a narrow alley, we enter a small court-yard which the lofty buildings in front and rear keep in almost perpetual shade. Entering it from the street on a sunny day the atmosphere seems like that of a well. The yard, which is about 25 feet square, is filled with recently-washed clothing suspended to dry. In the centre of this space are the privies used by the population of both front and rear-houses. Their presence is quite as perceptible to the smell as to the sight.

Making our way through this enclosure, and descending four or five steps, we find ourselves in the basement of the rear-building. We enter a room whose low ceiling is blackened with smoke, and its walls discolored with damp. In front, opening on a narrow area covered with green mould, two small windows, their tops scarcely level with the court-yard, afford at noonday a twilight-illumination to the apartment. Through their broken panes they admit the damp air laden with effluvia which constitutes the vital atmosphere inhaled by all who are immured in this dismal abode.

A door at the back of this room communicates with another which is entirely dark, and has but this one opening. Both rooms together have an area about eighteen feet square, and these apartments are the home of six persons. The father of the family, a day laborer, is absent. The mother, a wrinkled crone at thirty, sits rocking in her arms an infant whose pasty and pallid features tell that decay and death are usurping the place of health and life. Two older children are in the street, which is their only playground, and the only place where they can go to breathe an atmosphere that is even comparatively pure. A fourth child, emaciated to a skeleton, and with that ghastly and unearthly look which marasmus impresses on its victims, has reared its feeble frame on a rickety chair against the window sill, and is striving to get a glimpse at the smiling heavens whose light is so seldom permitted to gladden its longing eyes. Its youth has battled nobly against the terribly morbid and devitalizing agents which have oppressed its childish life—the poisonous air, the darkness, and the damp; but the battle is nearly over, it is easy to decide where the victory will be.

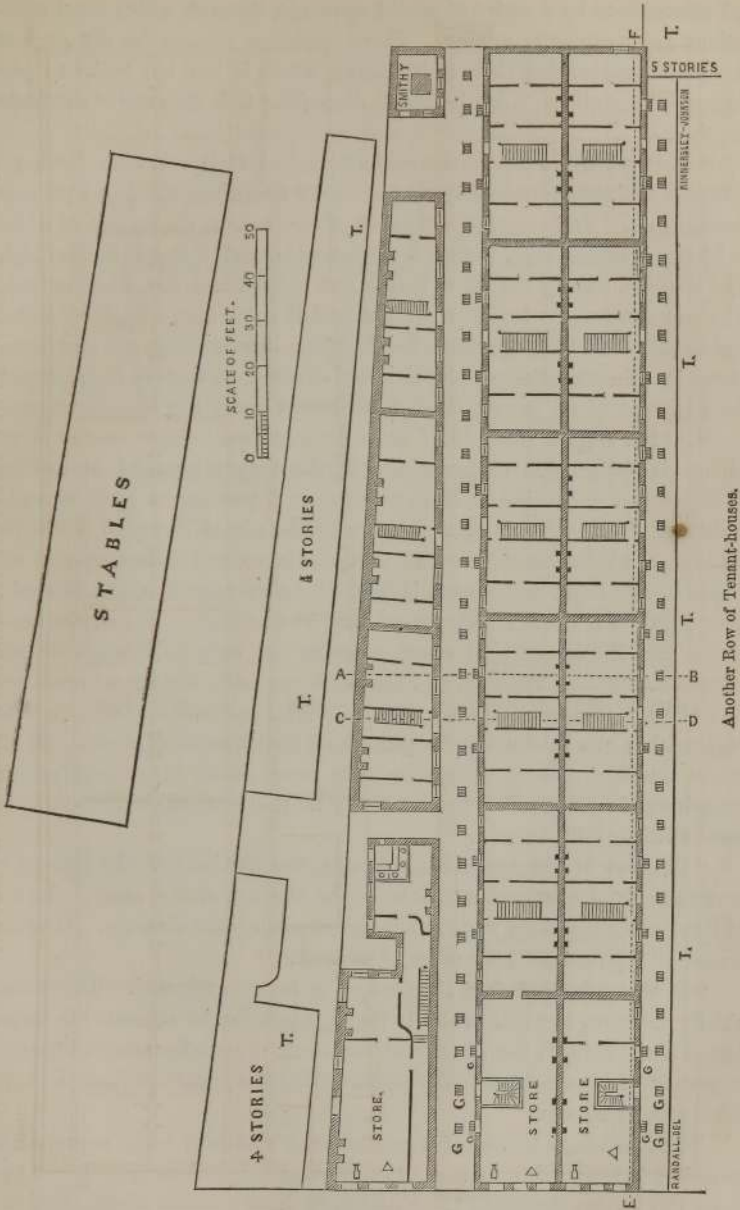
My district contains one tenant-house which has become rather notorious in consequence of having been the subject of several special reports, one of which I made about three years since. As this establishment is very extensive, and possesses some peculiar characteristics, and as the description of these premises and their population which I gave in that report is equally applicable now, I quote from it here: *

“The building known as No. — and No. — Cherry Street forms a part of what has heretofore been known as ‘Gotham Court.’ As measured, it is 34 feet 4 inches wide in front and rear, is 234 feet long and 5 stories high. On the north it is contiguous to a large tenant-house fronting on Roosevelt Street. On the west an alley 9 feet wide separates it from a similar structure forming a part of the ‘Court.’ On the east another alley, 7 feet wide, divides it from the rear of a number of houses on Roosevelt Street.

“In the basement of this building are the privies, through which the Croton-water is permitted to run for a short time occasionally; but this is evidently insufficient to cleanse them, for their emanations render the first story exceedingly offensive, and may be perceived as a distinct odor as high as the third floor.

“The contents of the privies are discharged into subterranean drains or sewers, which run through each alley and communicate with the exter-

*The Inspector of the Fourth District prepared the special report here referred to when he was Visiting Physician to the New York City Dispensary in the same district in the year 1859-'60.—EDITOR.



"GOTHAM COURT."—GROUND PLAN AND SURROUNDINGS.

nal atmosphere by a series of grated openings, through which fetid exhalations are continually arising. These openings receive the drainage of the buildings, besides the refuse matter which is not too bulky to pass through the gratings, a bordering of disgusting filth frequently surrounding them.

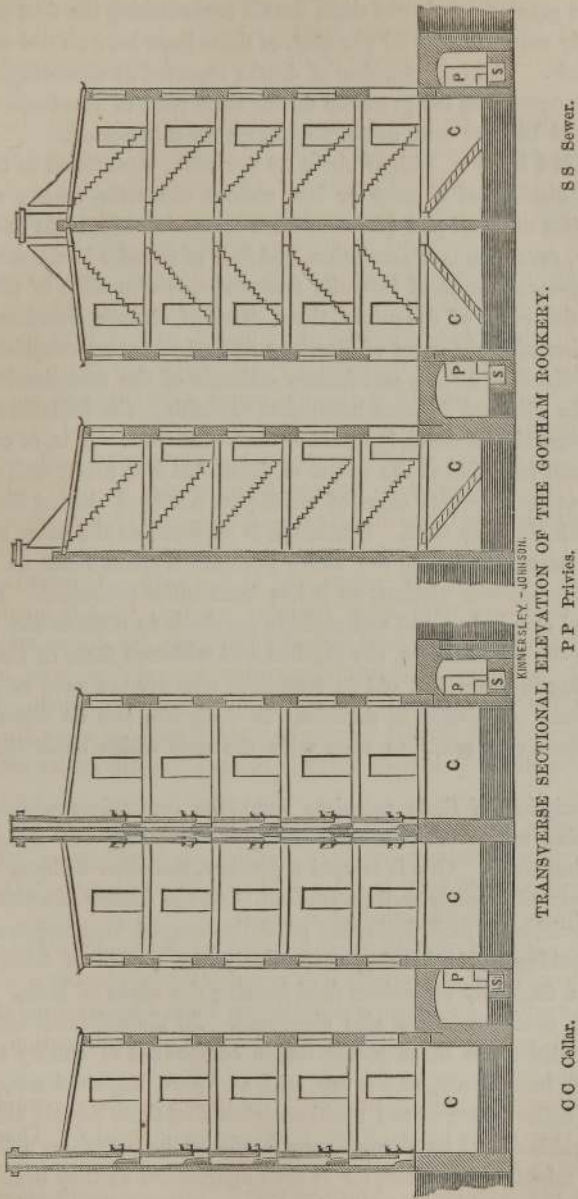
"This structure contains twelve principal divisions, each having a common staircase communicating with 10 domiciles, making 120 tenements in all. Each tenement consists of two rooms, the largest of which is 14 feet 8 inches long, 9 feet 6 inches wide, and 8 feet 4 inches high. The smaller, having the same length and height, is 8 feet 6 inches wide. The two apartments together contain $1,955\frac{1}{2}$ cubic feet. Each room has one small window. The doors leading from the landings are contiguous to the wall in which these windows are situated, so that it is impossible for a current of air to pass *through* the rooms under any circumstances.

"At the time of visit 49 of the tenements were either vacant or the occupants absent. In the remaining 71 there were reported as residing 504 persons, averaging a little more than 7 persons to each occupied domicile. The entire amount of space in the rooms occupied is 138,840 cubic feet, which would be equal to a single room 118 feet square, and about 10 feet high, giving each individual an average of about 275 cubic feet, equal to a closet 5 feet square and 11 feet high. It must be recollected that the above total space contains not only its 504 inhabitants, but their furniture, bedding, and household utensils, besides no small portion of their excretions, as is painfully evident to every one who, in these regions, has the misfortune to possess an acute sense of smell. Of the entire number of tenements, four only were found in a condition approaching cleanliness. It need scarcely be said that the entire establishment swarms with vermin.

"In seven of the tenements tailoring was carried on. In five out of seven the articles manufactured were for the use of the army. In two of these rooms patients were found sick of contagious diseases. One was a case of typhus fever, the other of measles.

"It was admitted that 19 persons were unvaccinated. These were chiefly children, but it is probable that a much larger number are unprotected from variola, for in several instances those who asserted that the operation had been successfully performed, failed, on examination, to exhibit a vaccine scar.

"The average length of time that the residents have occupied the premises is reported to be about two years and eight months. There have been 138 births, including 12 still-born, in these families during their term of residence in the building. Of these only 77 are now living, showing an



[The plan illustrates how the domiciles are superimposed, one above another; and how the loathsome cellar and privies are reached.]

infant mortality of over 44 per cent. in two years and eight months; but as by far the greater number of these deaths occur during the first year, it may be safely assumed that 30 per cent. of those born here do not survive a twelvemonth. The total number of deaths reported as occurring in the families now occupying the premises during their term of residence there, is 98, or about $19\frac{1}{2}$ per cent. of the population for that period.

“Of the 504 inmates, 146, or about 29 per cent., were found to be suffering from diseases of a more or less serious character, among which were four cases of small-pox (three of them unvaccinated), eight cases of typhus fever, seven cases of scarlatina, and four of measles in the eruptive stage, twenty-seven cases of infantile marasmus, twelve cases of phthisis pulmonalis, five cases of dysentery, three cases of chronic diarrhœa, and a large number of slight cases of diarrhœa and of cutaneous eruptions.

“It is difficult to form a satisfactory estimate of the comparative frequency of the different diseases heretofore prevailing, the inmates being, in a great proportion of cases, ignorant of their character. It is, of course, equally difficult to arrive at the causes of death, but it is pretty well ascertained that at least twenty cases of small-pox occurred during the past year, of which six were fatal. Scarlatina is assigned as the cause of sixteen deaths occurring during the above period. Typhus fever undoubtedly claimed numerous victims, as it has been quite prevalent. To the unaccustomed eye it is a sad and striking spectacle to witness the attenuated forms, the sunken eyes, the pinched and withered faces of the little patients, young in years but old in suffering, who are the prey of infantile marasmus. A glance is sufficient to designate *this* as one of the ghostly janitors, ever ready to open wide the gate which leads to early death.

“A description of these premises would be incomplete without, at least, a passing notice of two establishments occupying the front portion of the first story. One is termed a grocery, the other a liquor store. Both are apparently pretty well patronized. At the former are retailed a variety of articles of food, including partially-decayed vegetables, rather suspicious looking solids, bearing respectively the names of butter and cheese, and a decidedly suspicious fluid bearing the name of milk. Beer and alcoholic compounds are also dispensed. At the adjoining shop the staple commodities are those indescribable compounds of sundry known and unknown ingredients, which are sold as ‘pure imported wines and liquors.’ I believe from what I could ascertain that these liquors are used to a considerable extent by almost every family on the premises, a fact, indeed, which might be expected, for in such apartments as they occupy the poisonous air begets a deadly lassitude, and generates an inordinate desire

for stimulants. To the effect of these unwholesome viands and poisonous beverages may probably be traced much of the diarrhœa which prevails here even at this season, and which is vastly increased in amount during the summer months.

“On the whole, perhaps, this section of Gotham Court presents about an average specimen of tenant-houses in the lower part of the city in respect to salubrity. There are some which are more roomy, have better means of ventilation, and are kept cleaner; but there are many which are in far worse condition, and exhibit a much higher rate of mortality than this.”

The number of inhabited basements and cellars is 224, occupied by 268 families, or about 1,400 persons. Their depth below the “curb” or street level varies from 2 to 8 feet, averaging about $4\frac{1}{2}$ feet.

The floors of 16 are below high-water mark.

| | | | | | |
|---|----|---|--|---|---|
| “ | 91 | “ | less than 10 feet above high-water mark. | | |
| “ | 84 | “ | from 10 to 20 | “ | “ |
| “ | 28 | “ | “ 20 to 30 | “ | “ |
| “ | 5 | “ | over 30 | “ | “ |

In the sub-tidal basements 19 families, or 110 persons, live *beneath the level of the sea*.

This submarine region is not only excessively damp but is liable to sudden inroads from the domains of Neptune. At high tide the water often wells up through the floors, submerging them to a considerable depth. The constant repetition of this aquatic episode in domestic life, has led to the abandonment, as residences, of several of these basements, the number now occupied being much smaller than it was formerly.

They are all damp, those in the least elevated localities, of course, being most so. In very many cases the vaults of privies are situated on the same or a higher level, and their contents frequently ooze through walls into the occupied apartments beside them. Fully one-fourth of these subterranean domiciles are pervaded by a most offensive odor from this source, and rendered exceedingly unwholesome as human habitations. These are the places in which we most frequently meet with typhoid fever and dysentery during the summer months. I estimate the amount of sickness of all kinds affecting the residents of basements and cellars compared with that occurring among an equal number of the inhabitants of floors above ground, as being about in the ratio of 3 to 2.

PRIVIES.—Of the privies in this district less than 30 per cent. are connected with drains or sewers. About 15 per cent. are situated in houses

occupied as dwellings, generally in the basement. At least 10 per cent. were found in a very offensive condition. The proximity of the latter to the fever localities is shown by the large map. There is a section of my district embracing at least nine blocks, in every part of which the peculiar odor arising from privies is always distinctly perceptible during the summer months. From this region fever is never absent. I refer to typhus and typhoid, for intermittent and remittent fever do not prevail in this neighborhood even in the low tract adjoining the river. Such a gentle fiend as paludal miasma flies affrighted from the terrific phantoms of disease that reign supreme in this domain of pestilence.

RENTS.—In regular tenant-houses the rent of each domicile at present averages \$9 per month, or \$108 per year; the entire rent of each of these houses thus averaging \$950 per annum.

Excessive Crowding of Houses upon Lots.—In some cases front and rear buildings are situated on lots less than 80 feet deep. They are generally crowded into the smallest possible space, and are constructed in the cheapest manner.

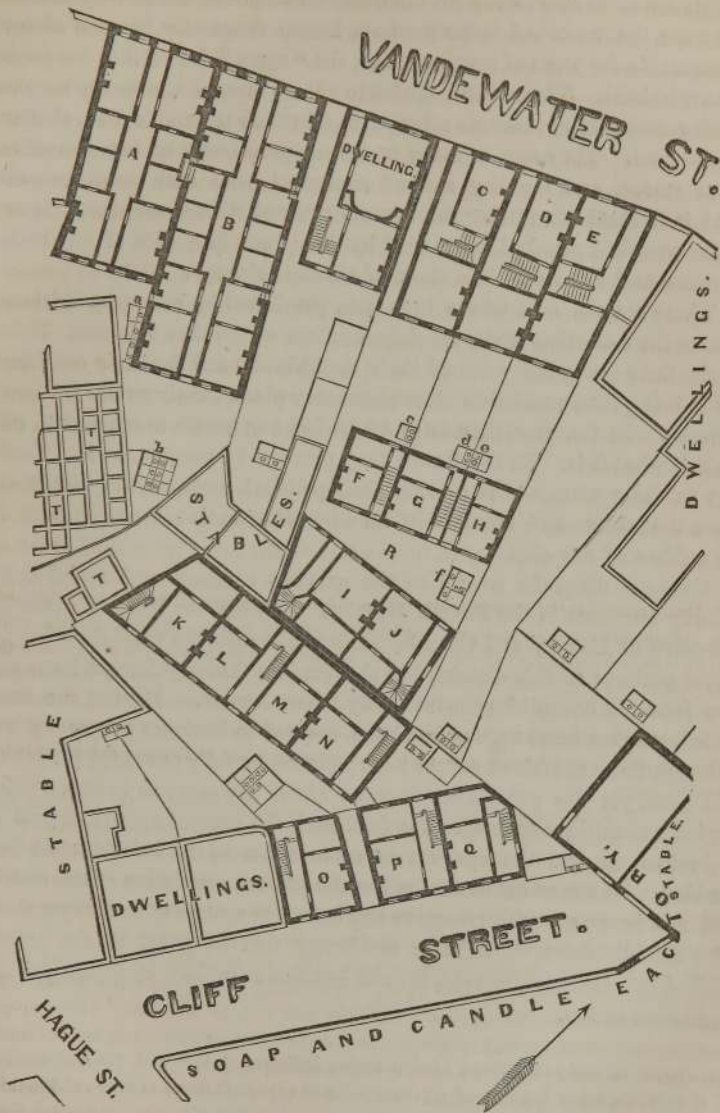
They are, in many instances, owned by large capitalists, by whom they are farmed out to a class of factors who make this their especial business.* These men pay to the owners of the property a sum which is

* The diagram on the opposite page represents an area eighty yards long and fifty yards wide, including the *cul-de-sac* at the termination of Cliff Street. It illustrates the proximity to crowded habitations of offensive and dangerous nuisances, often observed in the lower part of the city. The diagram presents an accurate ground plan of each tenant-house which it embraces. Within this space are 20 dwellings occupied by 111 families, and having a population of 538 persons. A soap-and-candle factory, a tannery, and five stables, in which are kept not less than 30 horses, are also wholly or partially included within its limits.

A, B, C, D, E, are tenant-houses fronting on Vandewater Street. An alley four feet wide running through C forms the sole communication with the five tenant-houses F, G, H, I, J, which open into the small court R, in which stands their common privy, *f*, situated within three feet of the hall door of one of the houses, which is constantly pervaded by its noisome odor; *c*, *d*, *e*, are privies situated immediately under the windows of the houses F, G, H; *a* and *b* are privies belonging to the tenant-houses A and B; K, L, M, N, are tenant-houses standing back to back with two of those in the court above mentioned and with three stables to which access is had from Vandewater Street. The position of two stables fronting on Cliff Street will also be observed. The soap-and-candle factory, whose frontage is shown in the cut, is a very extensive one, and its emanations vitiate the atmosphere for a considerable space around.

T, T, T, represent a series of tan vats, in the rear of a leather factory on Frankfort Street, which generally contain a large number of green hides in a very offensive condition. The peculiar stench from this source is usually quite perceptible through the entire area shown in the engraving.

This locality lies on the borders of a former marsh known as "Beekman's Swamp." The



CROWDED AREAS AND AN INSALUBRIOUS QUARTER.

considered a fair return on the capital invested, and rely for their profits (which are often enormous) on the additional amount which they can extort from the wretched tenants whose homes frequently become almost untenable for want of repairs, which the "agent" deems it to his interest to withhold. These men contrive to absorb most of the scanty surplus which remains to the tenants after paying for their miserable food, shelter, and raiment. They are, in many instances, proprietors of low groceries, liquor stores, and "policy shops" connected with such premises—the same individual often being the actual owner of a large number. Many of the wretched population are held by these men in a state of abject dependence and vassalage little short of absolute slavery.

These are the men whose influence, purchased by corrupt politicians, secures their election to the municipal offices which they disgrace. Holding in their grasp the votes of their dependents, and by their combined action being thus enabled to elect whom they please, their power is almost supreme. In the past they have controlled our health organization, and made it what it is. In the future they propose to perpetuate it. Confident in the system which secures their political strength, they set at defiance the wishes and opinions of all who take an intelligent interest in the welfare of our city.

Overcrowding, the source of the greatest sanitary and social evils, steadily increases in the Fourth District. Within the last ten years the extension of Bowery and Chambers Street through the most densely-populated portions of this district, has thrown into thoroughfares a large section formerly occupied principally by tenant-houses. During the same period, another large section has been devoted to business purposes; but, although these combined causes have reduced by fully one-third the inhabited area, yet the population remains about the same as before. Good hygienic conditions cannot be obtained until the present system of *packing* is broken up and the *pro rata* of cubic space to the individual at least doubled. The removal of one-half of the present population of the district will be a necessary preliminary to any complete system of sanitary reform. The establishment of suitable residences for the poor, if not accomplished by private enterprise, should become a subject of municipal and legislative action.

appearance of every inhabitant of this region indicates a low and vitiated condition of the system, rendering it specially susceptible to adynamic forms of fever, which, during epidemic visitations, have on several occasions spread with terrific rapidity through the entire quarter. Typhus fever has prevailed during the past year to a considerable extent in some of these houses, while small-pox has been rife in the tenant-houses on Vandewater Street. It has been observed that scarlatina is especially malignant and fatal here.

A tract equal in extent to Central Park, occupied by dwellings designed for their homes, which should possess the indispensable hygienic conditions of sufficient air-space, and light, good ventilation and drainage, and placed under such police regulations as should secure the exclusion or prompt suppression of all nuisances, would be an inestimable boon to this class, and a greater benefit to the entire community than even the splendid ornament to our city above named. Simply as an investment of funds there is no doubt that such an enterprise would *pay*, but its benefits could not be measured by any standard of pecuniary profit. It would be the proudest work of which our imperial city could boast, and thousands of her sons thus rescued from degradation and wretchedness would, in future years, "rise up and call her blessed."

VACANT LOTS, &c.—There are but few vacant lots in this district, and on most of them buildings are now in process of construction. There are fifteen coal yards. As far as I am aware, none of them exercise any unfavorable influence on the public health beyond that caused by the great amount of dust which at times arises from them, to be inhaled by the neighboring residents.

The only place of sepulture is the "Jews' Burying Ground," a very ancient cemetery, which of late years has been much reduced in size by the extension of the Bowery. It now has a frontage on the latter street. Its present area is about 5,000 square feet.

LIQUOR STORES.—The number of liquor stores and drinking places is 446; which is one to every 8 families, or one to every 49 persons. 329 are located in houses otherwise occupied as residences; 28 are reputed to be brothels; 5 or 6 are "sailors' dance-houses." The number of places where articles of food are sold is 134, or one to every 27 families, or 164 persons.

FOOD AND MARKETS.—The quality of the food sold at the corner groceries and butchers' shops in this neighborhood deserves a more extended notice than it can receive here. A casual examination shows much of it to be unfit for human sustenance. Unwholesome meat, particularly *slunk* veal, is constantly vended and consumed. Piles of pickled herrings are exposed to the air till the mass approaches a condition of putridity; and this slimy food, with wilted and decayed vegetables, sausages not above suspicion, and horrible pies, composed of stale and unripe fruits, whose digestion no human stomach can accomplish, all find ready purchasers.

These decaying animal and vegetable remains are daily entombed in the protuberant stomachs of thousands of children, whose pallid, expressionless faces and shrunken limbs are the familiar attributes of childhood in these localities. They constitute the food of thousands of prematurely-

aged men and women, who seek relief from the poisonous effects of such viands in the more poisonous stimulants which are vended side by side with them. The latter are almost universally used by the population of this district, and, it need scarcely be said, are adulterated to the greatest possible extent. Narcotic poisons take the place of the more expensive alcohol, while mineral acids are often used to give pungency to the beverage. Nor are the other articles of drink sold to the denizens of this quarter more pure or less injurious than the solid food. Milk preserves little more of its original qualities than the color and the name. The "fresh-ground coffee" used here has never been fanned by the breezes of "Araby the blest." It is innocent of the slightest association with swamps of Java or Brazilian plains. It may be interesting to some portions of the public to know something of its history previous to its assuming its status and title as a beverage. It runs somewhat in this wise: That professional chiffonier, the New York ragpicker, derives the emoluments of his calling from several distinct sources. The products extracted from the dubious mines in which he delves, viz., the gutter, the garbage-box, the ash-barrel, &c., are various, having only this in common, that they are all extremely filthy. Thus the textile contents of his bag and basket go to the paper mill and shoddy factory. Bones find their destiny in saponaceous and fertilizing compounds; metallic articles are transferred to the junk shop; and even bits of coal find their appropriate uses. But there still remains a residuum which his professional genius has contrived to make a source of profit. This consists of fragments of bread and other farinacious food, decaying potatoes, cabbages, &c., interspersed with lifeless cats, rats, and puppies, thus introduced to a *post mortem* fellowship. I shall not stop to trace the occasional metamorphosis of the latter into the familiar sausage, but proceed to state that much of the above miscellaneous collection is supplied to certain sailors' boarding-houses, and enters into the composition of bread puddings, and of a sort of "long-shore lobsouse" which Jack loves "not wisely but too well."

There is, however, a *debris* of material too thoroughly saturated with street-mire to be considered savory, even in the above compound; but this is by no means destined to be wasted. It is sold to the manufacturers of cheap coffee. It is desiccated, partially carbonized, mingled with a small proportion of chickory, &c., ground, and is ready to fulfil its destiny.

Some of my professional brethren who have a down-town practice, when belated in the vicinity of Chatham Street, may possibly have sought refreshment in the popular form of "coffee and cakes," at some of the numerous night saloons in that neighborhood, and thus have had an op-

portunity to test the merits of the above-described beverage. If so, the uproar into which the digestive organs were subsequently thrown, doubtless left a lasting impression on the memory.

JUNK SHOPS AND PESTILENCE.—I have noted about 80 junk shops and second-hand stores in this district. They not unfrequently become sources whence infectious disease is disseminated. The articles of wearing apparel exposed for sale at stores of this class are occasionally brought from the most pestilential localities.

It too often happens that on the recovery, removal, or death of a patient ill of small-pox or typhus fever, all the clothing used about his person is disposed of to the first itinerant dealer that calls, and thus finds its way, saturated with contagion, to these establishments. Through these reprehensible practices variolous disease is doubtless spread far and wide. Nor is the business of first-class clothing houses carried on without occasionally endangering the health of those who patronize them. In localities where small-pox prevailed I found, in some instances within a few feet of the patients, tailors at work for our best clothing establishments.

Such infected vestments—worse than the tunic of the Centaur—bring disease and death not only to the wearer but to many others. The occupant of the crowded tenant-house procures from such a source a coat or a blanket, and soon a loathsome pest attacks the young and unprotected members of his family, and ultimately spreads through the entire quarter, destroying life after life and endangering the health of a large community. Small-pox, suddenly breaking out in some secluded rural district, often owes its unsuspected origin to the above causes. In the remote solitude of the ocean the seaman opens the chest in which he has deposited such obnoxious apparel, and from this Pandora's box scatters the seeds of pestilence among his comrades, which, ripening, shall spread its germs to distant ports.

STABLES.—There are 47 stables in this district. About one-fourth of the number are large, designed for from 10 to 20 horses each. The remainder are small, many of them being mere shanties in the rear of tenement or other buildings, and completely destitute of any means of drainage. The manure is either allowed to remain on the floors, or is deposited in receptacles beneath, whence it is removed at intervals.

The noxious gases arising from these places contribute in no small degree toward vitiating the atmosphere of the crowded tenements by which they are usually surrounded.

A reference to the large map accompanying this report will show that many of the localities where the existence of typhus or typhoid fever is

indicated are in the immediate vicinity of stables, the emanations from which appear to be predisposing if not exciting causes of several forms of zymotic disease.

Influence of Stables upon Diseases.—Of 44 cases of erysipelas occurring during the past year no less than 31 were adjacent to or within twenty-five feet of stables. At No. 10 ——— Street, which is contiguous to one of the largest stables in this district, four cases of this affection occurred. The rear of No. 27 ——— Street adjoins a stable, and is within twenty feet of another. In this house, which is occupied by five families, there were three cases of erysipelas. The rear of No. 22 Cherry Street, which contains sixteen families, is separated from a large stable by a vacant lot, into which runs much of the fluid part of the manure. In this house five cases of the above disease were reported during the year.

Zymotic affections of the throat and lungs appear to be very prevalent in those localities where the litter of stables is undergoing fermentation. One of my colleagues has already stated to the Council his belief that gaseous emanations from these sources are conducive to the spread of diphtheria; and, while my own observations tend to confirm his theory, I believe it to be equally true of an insidious and very fatal form of pneumonia. I am not prepared to assert that these diseases are spontaneously generated under the influence of these causes, but I do not doubt that by their continued action the mucous membrane of the air-passages is brought into a condition which renders it highly receptive of morbid influences. Indeed, it may be said that zymotic diseases of all kinds appear to be exceedingly rife in this region; but I have found it difficult to obtain full and reliable reports of all the pestilential diseases that prevail here. Agents, lessees, and occupants of premises where they occur, are interested in concealing the existence of prevalent maladies, and generally the record of diseases can be ascertained only by searching inquiry. In many instances, too, patients sick of contagious maladies are removed to hospital, thus rendering it impossible without recourse to hospital records to form a correct estimate of the mortality from this cause. In several cases families have been broken up by the successive or simultaneous attack of their members by typhus. This occurred at No. 11 Jacob Street, at Nos. 34 and 38 Cherry Street, at No. 3 Vandewater Street, and at some other places, at each of which places entire families were known to have had fever, but concerning whom no other data could be found.

Accompanying this report is a list of 19 cases of small-pox and 46 cases of typhus and typhoid fever that have recently occurred in tene-

ments I have visited in this district, of which complete or partial histories have been obtained. This list gives the name, age, and residence of each patient, and the date of attack. It embraces less than one-third of the entire number of cases of the above diseases which have occurred in my district during the year.

From this table it appears that of the small-pox patients,

| | | |
|---|------------|--------------|
| 2 | resided in | basement, |
| 3 | “ | “ 1st story, |
| 8 | “ | “ 2d “ |
| 2 | “ | “ 3d “ |
| 2 | “ | “ 4th “ |
| 2 | “ | “ 5th “ |

Of the typhus and typhoid fever patients,*

| | | |
|----|------------|--------------|
| 5 | resided in | basement, |
| 13 | “ | “ 1st story, |
| 20 | “ | “ 2d “ |
| 7 | “ | “ 3d “ |
| 1 | “ | “ 4th “ |

Typhus always appears to diminish during the summer months when the heat forces the inhabitants to throw open their windows, and to use such means of ventilation as are at their command; yet at no time during the past year has this district been entirely free from it. Here those zymoses which depend for their origin on animal effluvia perpetually prevail. Diarrhœa and dysentery are prevalent at all times, though peculiarly so during the summer and autumn. This may be attributed in part to the use of putrescent and indigestible food; but the toxemia resulting from the absorption of concentrated aerial poisons predisposes the system to take on this as well as kindred morbid affections from the slightest exciting causes.

PULMONARY PHTHISIS.—Under the prostrating agencies ever at work in the abodes of the poor, pulmonary consumption is developed with fearful rapidity; nor to such depressing influences alone are due its wide-spread

* Of the typhus and typhoid fever patients whose age was ascertained, it was less than twelve years in about sixty per cent. of the cases. It will thus be seen that an exceedingly large proportion of children are attacked by these maladies. I think it shows conclusively the activity and virulence of the causes that produce these diseases that they seize so many persons at the outset of life, who, were the febrifacient poison more diluted and consequently slower in its action, would not become the subjects of these morbid agencies until a far later period. It must be remarked, however, that the cases here reported constitute but a small proportion of the total number of fever cases that have occurred in this district during the year.

ravages. The dust and smoke which constantly pervade their apartments keep the delicate tissues of the air-passages in a state of perpetual irritation, which disposes them to take on disease from causes which would otherwise be harmless or inert.

INFANTILE DISEASE AND MORTALITY.—But it is on the tender and susceptible frames of infants that the effects of these influences are most speedily and strikingly manifested. Like the fabled vampires, marasmus and its kindred diseases here hover about the pillow of childhood, sipping from the dewy springs of life till life itself is gone. On the walls of these living tombs DEATH hastens to inscribe the names of more than half of those whose hapless fate it is to be born within their dismal precincts.

The evils attendant upon a residence in crowded localities are not always manifested in distinct forms of disease. There is a tenant-house cachexy well known to such medical men as have a practical acquaintance with these abodes; nor does it affect alone the physical condition of their inmates. It has its moral prototype in an ochlesis of vice—a contagious depravity, to whose malign influence the youthful survivors of the terrible physical evils to which their infancy is exposed, are sure to succumb.

As pertinent to this subject I quote a paragraph or two from my report on “Gotham Court,” before mentioned:

“We often find in persons of less than middle age who have long occupied such confined and filthy premises, a morbid condition of the system unknown elsewhere. The eye becomes bleared, the senses blunted, the limbs shrunken and tremulous, the secretions exceedingly offensive.

“There is a state of premature decay. In this condition of life the ties of nature seem to be unloosed. Maternal instinct and filial affection seem to participate in the general decay of soul and body. A kind Providence, whose hand is visible even here, mercifully provides that the almost inevitable decay and death which man’s criminal neglect entails on the offspring of the unfortunates who dwell in these dreary mansions, shall elicit comparatively feeble pangs of parental anguish.

“To the physical and moral degradation, the blight of these miserable abodes, where decay reigns supreme over habitation and inhabitant alike, may be plainly traced much of the immorality and crime which prevail among us. The established truth, that, as the corporeal frame deteriorates, man’s spiritual nature is liable also to degenerate, receives its apt illustration here.”

The Tenant-House Rot.—The state of physical, mental, and moral decline to which I have adverted, is so well recognized and its causes so well understood, that it has received a name, less elegant than expressive; it is called the TENANT-HOUSE ROT.

Under such influences are reared to-day a large proportion of the future citizens of New York, who will control its social and political destinies. Under such influences have been reared a large class, already so numerous as at times to seriously disturb the public peace and to endanger the safety of our social and political fabric.

The terrible elements of society we saw brought to the surface during a great popular outbreak, are equally in existence at the present moment; nay, more, they are increasing year by year. The tocsin which next summons them from their dark and noisome haunts may be the prelude to a scene of universal pillage, slaughter, and destruction. We must reap that which we sow. Pestilence and crime are fungi of hideous growth, which spring up side by side from such pollution as we allow to rankle in our midst.