





SANITARY REFORM.

JACOB'S ISLAND AND THE TIDAL DITCHES OF BERMONDSEY.

A FEW persons who have been led to visit the localities spoken of in the following paper—feeling that the horrors they have witnessed MUST be put a stop to, and that they are bound, every one individually, to strain every nerve towards removing them—are induced to reprint (with the kind permission of the editor of "THE MORNING CHRONICLE") that which they are compelled to say, is but a plain unexaggerated description of the facts. What steps can be taken to eradicate the evil they as yet know not, but invite counsel and help from all who may feel with them, that in this Christian city hundreds of their fellow-creatures ought not to be left any longer to *drink and to breathe absolute poison*. As a temporary palliative, the supplying of pure water from without to the inhabitants, seems the most urgent measure to be taken.

An analysis of the water is in preparation, and a microscopical investigation of it is projected.

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A VISIT TO THE CHOLERA DISTRICT OF BERMONDSEY.

(*Morning Chronicle*, Sept. 24, 1849.)

THERE is an Eastern fable which tells us that a certain city was infested by poisonous serpents that killed all they fastened upon; and the citizens, thinking them sent from Heaven as a scourge for their sins, kept praying that the visitation might be removed from them, until scarcely a house remained unsmitten. At length, however, concludes the parable, the eyes of the people were opened; for, after all their prayers and fastings, they found that the eggs of the poisonous serpents were hatched in the muck-heaps that surrounded their own dwellings.

The history of the late epidemic, which now seems to have almost spent its fatal fury upon us, has taught us that the masses of filth and corruption round the metropolis are, as it were, the nauseous nests of plague and pestilence. Indeed, so well known are the localities of fever and disease, that London would almost admit of being mapped out pathologically, and divided into its morbid districts and deadly cantons. We might lay our fingers on the Ordnance map, and say here is the typhoid parish, and there the ward of cholera; for as truly as the West-end rejoices in the title of Belgravia, might the southern shores of the Thames be christened Pestilentia. As season follows season, so does disease follow disease in the quarters that may be more literally than metaphorically styled the plague-spots of London. If the seasons are favourable, and typhus does not bring death to almost every door, then influenza and scarlatina fill the workhouses with the families of the sick. So certain and regular are the diseases in their returns, that each epidemic, as it comes back summer after summer, breaks out in the self-same streets as it appeared in on its former visit, with but this slight difference, that if at its last visitation it began at the top of the street, and killed its way down, this time it begins at the bottom, and kills its way as surely up the lines of houses.

Out of the 12,800 deaths which, within the last three months, have arisen from cholera, 6,500 have occurred on the southern shores of the Thames; and to this awful number no localities have contributed so largely as Lambeth, Southwark, and Bermondsey, each, at the height of the disease, adding its hundred victims a week to the fearful catalogue of mortality. Any one who has ventured a visit to the last-named of these places in particular, will not wonder at the ravages of the pestilence in this malarious quarter, for it is bounded on the north and east by filth and fever, and on the south and west by want, squalor, rags, and pestilence. Here stands, as it were, the very capital of cholera, the Jessore of London—JACOB'S ISLAND, a patch of ground insulated by the common sewer. Spared by the fire of London, the houses and comforts of the people in this loathsome place have scarcely known any improvement since that time. The place is a century behind even the low and squalid districts that surround it.

In the days of Henry II., the foul stagnant ditch that now makes an island of this pestilential spot, was a running stream, supplied with the waters which poured down from the hills about Sydenham and Nunhead, and was used for the working of the mills that then stood on its banks. These had been granted by charter to the monks of St. Mary and St. John, to grind their flour, and were dependencies upon the Priory of Bermondsey. Tradition tells us that what is now a straw yard skirting the river, was once the City Ranelagh, called "Cupid's Gardens," and that the trees, which are now black with mud, were the bowers under which the citizens loved, on the sultry summer evenings, to sit beside the stream drinking their sack and ale. But now the running brook is changed into a tidal sewer, in whose putrid filth staves are laid to season; and where the ancient summer-houses stood, nothing but hovels, sties, and muck-heaps are now to be seen.

Not far from the Tunnel there is a creek opening into the Thames. The entrance to this is screened by the tiers of colliers which lie before it. This creek bears the name of the Dock Head. Sometimes it is called St. Saviour's, or, in jocular allusion to the odour for which it is celebrated, Savory

Dock. The walls of the warehouses on each side of this muddy stream are green and slimy, and barges lie beside them, above which sacks of corn are continually dangling from the cranes aloft. This creek was once supplied by the streams from the Surrey hills, but now nothing but the drains and refuse of the houses that have grown up round about it thicken and swell its waters.

On entering the precincts of the pest island, the air has literally the smell of a graveyard, and a feeling of nausea and heaviness comes over any one unaccustomed to imbibe the musty atmosphere. It is not only the nose, but the stomach, that tells how heavily the air is loaded with sulphuretted hydrogen; and as soon as you cross one of the crazy and rotting bridges over the reeking ditch, you know, as surely as if you had chemically tested it, by the black colour of what was once the white-lead paint upon the door-posts and window-sills, that the air is thickly charged with this deadly gas. The heavy bubbles which now and then rise up in the water show you whence at least a portion of the mephitic compound comes, while the open doorless privies that hang over the water side on one of the banks, and the dark streaks of filth down the walls where the drains from each house discharge themselves into the ditch on the opposite side, tell you how the pollution of the ditch is supplied.

The water is covered with a scum almost like a cobweb, and prismatic with grease. In it float large masses of green rotting weed, and against the posts of the bridges are swollen carcasses of dead animals, almost bursting with the gases of putrefaction. Along its shores are heaps of indescribable filth, the phosphoretted smell from which tells you of the rotting fish there, while the oyster shells are like pieces of slate from their coating of mud and filth. In some parts the fluid is almost as red as blood from the colouring matter that pours into it from the reeking leather-dressers' close by.

The striking peculiarity of Jacob's Island consists in the wooden galleries and sleeping-rooms at the back of the houses which overhang the dark flood, and are built upon piles, so that the place has positively the air of a Flemish street,

flanking a sewer instead of a canal; while the little rickety bridges that span the ditches and connect court with court, give it the appearance of the Venice of drains, where channels before and behind the houses do duty for the ocean. Across some parts of the stream whole rooms have been built, so that house adjoins house; and here, with the very stench of death rising through the boards, human beings sleep night after night, until the last sleep of all comes upon them years before its time. Scarce a house but yellow linen is hanging to dry over the balustrade of staves, or else run out on a long oar where the sulphur-coloured clothes hang over the waters, and you are almost wonderstruck to see their form and colour unreflected in the putrid ditch beneath.

At the back of nearly every house that boasts a square foot or two of outlet—and the majority have none at all—are pigsties. In front waddle ducks, while cocks and hens scratch at the cinder-heaps. Indeed, the creatures that fatten on offal are the only living things that seem to flourish here.

The inhabitants themselves show in their faces the poisonous influence of the mephitic air they breathe.* Either their skins are white, like parchment, telling of the impaired digestion, the languid circulation, and the coldness of the skin peculiar to persons suffering from chronic poisoning, or else their cheeks are flushed hectically, and their eyes are glassy, showing the wasting fever and general decline of the bodily functions. The brown, earth-like complexion of some, and their sunk eyes, with the dark areolæ around them, tell you that the sulphuretted hydrogen of the atmosphere in which they live has been absorbed into the blood; while others are

* This description, faithful though it was during the cholera heats of the past summer, may seem overcharged to a visitor at the present day. There are three reasons for this: 1st. That the greater coldness of the weather keeps the sickly within doors, whilst it improves the health of all who can stand the contact of the outer air, by checking the decomposition of organic matter in the ditches. 2nd. That disease has carried off during the present year all the weakest subjects, those who survive being literally picked men. 3rd. That the places of the dead have been recently filled up by newcomers from healthier localities. Hence it arises, that the mortality in the worst districts south of the Thames is now below the average.

remarkable for the watery eye, exhibiting the increased secretion of tears so peculiar to those who are exposed to the exhalations of the hydro-sulphate of ammonia.

Scarcely a girl that has not suffusion and soreness of the eyes, so that you would almost fancy she had been swallowing small doses of arsenic; while it is evident, from the irritation and discharge from the mucous membranes of the noses and eyes for which all the children are distinguished, that the poor emaciated things are suffering from the continual inhalation of the vapour of carbonate of ammonia and other deleterious gases.

Nor was this to be wondered at, when the whole air reeked with the stench of rotting animal and vegetable matter; for the experiment of Professor Donovan has shown that a rabbit, with only its body enclosed in a bladder filled with sulphuretted hydrogen, and allowed to breathe freely, will die in ten minutes. Thénard also has proved that one eight hundredth part of this gas in the atmosphere is sufficient to destroy a dog, and one two hundred and fiftieth will kill a horse; while Mr. Taylor, in his book on poisons, assures us that the men who were engaged in excavating the Thames Tunnel suffered severely during the work, from the presence of this gas in the atmosphere in which they were obliged to labour. "The air, as well as the water which trickled through the roof," he tells us, "was found to contain sulphuretted hydrogen. This was probably derived from the action of the iron pyrites in the clay. By respiring this atmosphere the strongest and most robust men were, in the course of a few months, reduced to a state of extreme exhaustion, and died. They became emaciated, and fell into a state of low fever, accompanied with delirium. In one case which I saw," he adds, "the face of the man was pale, the lips of a violet hue, the eyes sunk and dark all round, and the whole muscular system flabby and emaciated." To give the reader some idea as to the extent with which the air in Jacob's Island is charged with this most deadly compound, it will be sufficient to say that a silver spoon of which we caught sight in one of the least wretched

dwellings, was positively chocolate-coloured by the action of the sulphur on the metal.

On approaching the tidal ditch from the Neckinger-road, the shutters of the house at the corner were shut from top to bottom. Our intelligent and obliging guide, Dr. Martin, informed us that a girl was then lying dead there from cholera, and that but very recently another victim had fallen in the house adjoining it. This was the beginning of the tale of death, for the tidal ditch was filled up to this very point. Here, however, its putrefying waters were left to mingle their poison with the two hundred and sixty-seven cubic feet of air that each man daily takes into his lungs, and this was the point whence the pestilence commenced its ravages. As we walked down George-row, our informant told us that at the corner of London-street he could see, a short time back, as many as nine houses in which there were one or two persons lying dead of the cholera at the same time; and yet there could not have been more than a dozen tenements visible from the spot.

We crossed the bridge, and spoke to one of the inmates. In answer to our questions, she told us she was never well. Indeed, the signs of the deadly influence of the place were painted in the earthy complexion of the poor woman. "Neither I nor my children know what health is," said she. "But what is one to do? We must live where our bread is. I've tried to let the house, and put a bill up, but cannot get any one to take it." From this spot we were led to narrow close courts, where the sun never shone, and the air seemed almost as stagnant and putrid as the ditch we had left. The blanched cheeks of the people that now came out to stare at us, were white as vegetables grown in the dark, and as we stopped to look down the alley, our informant told us that the place teemed with children, and that if a horn was blown they would swarm like bees at the sound of a gong. The houses were mostly inhabited by "corn-runners," coal-porters, and "long-shore-men," getting a precarious living—earning sometimes as much as 12s. a day, and then for weeks doing nothing. Fevers prevailed in these courts, we were told, more than at the side of the ditch.

By this way we reached a dismal stack of hovels called, by a strange incongruity, Pleasant-row. Inquiring of one of the inmates, we were informed that they were quite comfortable now! The stench had been all removed, said the woman, and we were invited to pass to the back-yard as evidence of the fact. We did so; the boards bent under our feet, and the air in a cellar-like yard was foetid to positive nausea. As we left the house a child sat nursing a dying half-comatose baby on a door step. The skin of its little arms, instead of being plumped out with health, was loose and shrivelled, like an old crone's, and had a flabby monkey-like appearance more than the character of the human cuticle. The almost jaundiced colour of the child's skin, its half paralyzed limbs, and state of stupor, told it was suffering from some slow poison; indeed the symptoms might readily have been mistaken for those of chronic poisoning from acetate of lead. At the end of this row our friend informed us that the last house on either side was *never* free from fever.

Continuing our course we reached "The Folly," another street so narrow that the names and trades of the shopmen were painted on boards that stretched, across the street, from the roof of their own house to that of their neighbour's. We were here stopped by our companion in front of a house "to let." The building was as narrow and as unlike a human habitation as the wooden houses in a child's box of toys. "In this house," said our friend, "when the scarlet fever was raging in the neighbourhood, the barber who was living here suffered fearfully from it; and no sooner did the man get well of this than he was seized with typhus, and scarcely had he recovered from the first attack than he was struck down a second time with the same terrible disease. Since then he has lost his child with cholera, and at this moment his wife is in the work-house suffering from the same affliction. The only wonder is that they are not all dead, for as the man sat at his meals in his small shop, if he put his hand against the wall behind him, it would be covered with the soil of his neighbour's privy, sopping through the wall. At the back of the house was an open sewer, and the privies were full to the seat."

One fact, says an eminent writer in toxicology, is worthy of the attention of medical jurists, namely, that the respiration of an atmosphere only slightly impregnated with the gases emanating from drains and sewers, may, if long continued, seriously affect an individual and cause death. M. D'Arcet had to examine a lodging in Paris, in which three young and vigorous men had died successively in the course of a few years, under similar symptoms. The lodging consisted of a bed-room with a chimney, and an ill-ventilated ante-room. The pipe of a privy passed down one side of the room, by the head of the bed, and the wall in this part was damp from infiltration. At the time of the examination there was no perceptible smell in the room, though it was small and low. M. D'Arcet attributed the mortality in the lodging to the slow and long-continued action of the emanations from the pipe. (Ann. d'Hyg., Juillet, 1836.)

We then journeyed on to London-street, down which the tidal ditch continues its course. In No. 1 of this street the cholera first appeared seventeen years ago, and spread up it with fearful virulence; but this year it appeared at the opposite end, and ran down it with like severity. *As we passed along the reeking banks of the sewer, the sun shone upon a narrow slip of the water. In the bright light it appeared the colour of strong green tea, and positively looked as solid as black marble in the shadow,—indeed it was more like watery mud than muddy water; and YET WE WERE ASSURED THIS WAS THE ONLY WATER THE WRETCHED INHABITANTS HAD TO DRINK. As we gazed in horror at it, we saw drains and sewers emptying their filthy contents into it; WE SAW A WHOLE TIER OF DOORLESS PRIVIES IN THE OPEN ROAD, COMMON TO MEN AND WOMEN, BUILT OVER IT; we heard bucket after bucket of filth splash into it, and the limbs of the vagrant boys bathing in it seemed, by pure force of contrast, white as Parian marble. And yet, as we stood doubting the fearful statement, we saw a little child, from one of the galleries opposite, lower a tin can with a rope, to fill a large bucket that stood beside her. In each of the balconies that hung over the stream the self-same tub was to be seen, in which the inhabitants put the*

mucky liquid to stand, so that they may, after it has rested for a day or two, skim the fluid from the solid particles of filth, pollution, and disease. As the little thing dangled her tin cup as gently as possible into the stream, a bucket of night-soil was poured down from the next gallery.

In this wretched place we were taken to a house where an infant lay dead of the cholera. We asked if they *really did* drink the water? The answer was, "They were obliged to drink the ditch, without they could beg a pailfull or thieve a pailfull of water." "But have you spoken to your landlord about having it laid on for you?" "Yes, sir; and he says he'll do it, and do it, but we know him better than to believe him." "Why, sir," cried another woman, who had shot out from an adjoining room, "he won't even give us a little white-wash, though we tell him we'll willingly do the work ourselves: and look here, sir," she added, "all the tiles have fallen off, and the rain pours in wholesale."

We had scarcely left the house when a bill caught our eye, announcing that "this valuable estate" was to be sold.

From this spot we crossed the little shaky bridge into Providence-buildings—a narrow neck of land set in sewers. Here, in front of the houses, were small gardens that a table-cloth would have covered. Still the one dahlia that here raised its round red head made it a happier and brighter place. Never was colour so grateful to the eye. All we had looked at had been so black and dingy, and had smelt so much of churchyard clay, that this little patch of beauty was brighter and greener than ever was oasis in the desert. Here a herd of children came out, and stared at us like sheep. One child our guide singled out from the rest. She had the complexion of tawed leather, and her bright, glassy eyes were sunk so far back in her head, that they looked more like lights shining through the hollow sockets of a skull than a living head, and her bones seemed ready to start through the thin layer of skin. We were told she had had the cholera twice. Her father was dead of it. "But she, sir," said a woman, addressing us, "won't die. Ah! if she'd had plenty of victuals, and been brought up less hardy, she would have been dead and buried

long ago, like many more. And here's another," she added, pushing forward a long thin woman in rusty black. "Why, I've know'd her eat as much as a quartern loaf at a meal, and you can't fatten her nohow." Upon this there was a laugh; but in the woman's bloodless cheeks and blue lips, we saw that she, like the rest, was wasting away from the influence of the charnel-like atmosphere around her.

The last place we went to was in Joiner's-court, with four wooden houses in it, in which there had lately been as many as five cases of cholera. In front, the poor souls, as if knowing by an instinct that plants were given to purify the atmosphere, had pulled up the paving stones before their dwellings, and planted a few stocks here and there in the rich black mould beneath. The first house we went to, a wild ragged-headed boy shot out in answer to our knock, and putting his hands across the doorway, stood there to prevent our entrance. Our friend asked whether he could enter, and see the state of the drainage? "No; t'ain't convenient," was the answer, given so quickly and sharply, that the lad forced some ugly and uncharitable suspicion upon us. In the next house, the poor inmate was too glad to meet with any one ready to sympathize with her sufferings. We were taken up into a room, where we were told she had positively lived for nine years. The window was within four feet of a high wall, at the foot of which, until very recently, ran the open common sewer. The room was so dark that it was several minutes before we could see anything within it, and there was a smell of must and dry rot that told of damp and imperfect ventilation, and the unnatural size of the pupils of the wretched woman's eyes convinced us how much too long she had dwelt in this gloomy place.

Here, as usual, we heard stories that made one's blood curdle, of the cruelty of those from whom they rented the sties called dwellings. They had begged for pure water to be laid on, and the rain to be shut out: and the answer for eighteen years had been, that the lease was just out, "They knows its handy for a man's work," said one and all, "and that's the reason why they imposes on a body." This, indeed, seems to

us to be the great evil. Out of these wretches' health, comfort, and even lives, small capitalists reap a petty independence; and until the poor are rescued from the fangs of these mercenary men, there is but little hope either for their physical or moral welfare.

The extreme lassitude and deficient energy of both body and mind induced by the mephitic vapours they continually inhale leads them—we may say, *forces* them to seek an unnatural stimulus in the gin-shop; indeed, the publicans of Jacob's Island drive even a more profitable trade than the landlords themselves. What wonder, then, since debility is one of the predisposing conditions of cholera, that—even if these stenches of the foul tidal ditch be not the *direct* cause of the disease—that the impaired digestive functions, the languid circulation, the depression of mind produced by the continued inhalation of the noxious gases of the tidal ditch, together with the intemperance that it induces—the cold, damp houses—and, above all, the quenching of the thirst and cooking of the food with water saturated with the very excrements of their fellow-creatures, should make Jacob's Island notorious as the Jessore of England.

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