

CHAPTER IV.

PROGRESS OF CHOLERA IN THE EAST.

It was in such a climate, and among people of such habits, that the cholera first showed itself; and it soon became an object of common conversation and general fear. The terrified inhabitants of Jessore, where it first appeared, fled in crowds to the country; and the people on the western side of India heard of cholera as destroying its thousands on the eastern coasts, and putting a stop to all kinds of business. Every week brought them news of its advance towards themselves.

We, who talk about such things calmly, can hardly imagine what would be the real effect of such circumstances upon us. If, for instance, the cholera now prevailing at Sunderland, Newcastle, and Shields, should be said to have travelled to Darlington, or to York;—if it should be said to be coming downwards to Stamford, to Peterborough, to Cambridge; or along the coast to Whitby, to Cromer, to Yarmouth, and rapidly onwards towards London, and if the number of persons attacked was as great as when the disease first broke out at Jessore, the dismay and confusion would be indescribable. Even now, it is said that most of the medicines

recommended against cholera are eagerly bought up. The true use of fear, however, is to make wiser preparations against danger; and these will be mentioned in another chapter.

Looking at the map of Hindostan or India, the reader will find, at the head of the Bay of Bengal, the city of Calcutta, the capital of one of the three presidencies into which the government of India is divided. A little to the north-east of Calcutta, or to the right of it, and a little higher, will be found Jessore; and it was at this place that the cholera made its appearance in the month of August, 1817. Jessore is a crowded and dirty town, in the midst of marsh and jungle. It is distant about a hundred miles from Calcutta; and the disease spread from village to village, until it reached the latter place early in September. In the district of Jessore, it had carried off ten thousand persons in a few weeks. In the dirty and miserable quarters of Calcutta, among a poor and half-starved population, its ravages were most severe. In the narrow, dirty, unpaved lanes inhabited by the natives of this wealthy city, the people were attacked by hundreds, and many died in the course of very few hours. The disease spread to the vessels in the river. The crew of one came ashore to bury one of their comrades, dead of cholera; when they returned from the grave, a man, left to take care of the boat, was in convulsions, and soon died also; and the boatswain was attacked, and died soon afterwards. From Calcutta it spread itself, in

a north-west direction, through the province of Bahar or Behar, and along some of the great branches of the Ganges, the mouths of which great river discharge themselves into the Bay of Bengal, below, and to the east of Calcutta. Many large cities suffered most severely from it in its progress; and the inhabitants of some of them fled in dismay to other places. Benares, Allahabad, Cawnpoor, Lucknow, Bareilly, Agra, Delhi, all of which may be seen in the map, a little higher, and to the left of Calcutta, were among the places which suffered. The disease did not prevail in them all at once, but as it left one it appeared in another.

The disease also travelled westward of Calcutta, and reached the great army then collected in the province called the Deccan, which lies between Calcutta and Bombay, at the head of that great peninsula seen in the map of India, which ends at Cape Comorin. This army, commanded by the Marquis of Hastings, amounted to eleven thousand men, but had eighty thousand followers of the camp. The destruction effected in it was frightful. The medical men could not attend to all who required their help; and the living could not bury the numerous dead. Old and young, Europeans and natives, sunk beneath the sudden force of the malady; and the stoutest hearts were filled with fear. All business was stopt. All was silence, except where people were sick and dying. Men died whilst carrying the sick to hospitals; and those they carried died before they could be got thither. The English sol-

diers often died within six hours after the attack; and the Sepoys, or native soldiers, in three*. Sentries were seized at their posts, and those sent to relieve them were seized also. The natives fled in despair, but found all the country round strewed with dead bodies. The army was moved away, and every day left many dead behind, slain not by the sword, but by the cholera.

The cholera visited Nagpoor, and the cities of Aurungabad and Ahmednugger, and passed on to Poonah, which is seen to the south-east of Bombay†. It then got to the coast,—touched at the island of Salsette, near Bombay; and, by the second week of September, 1818, about a year from its first appearance, it was established in Bombay itself. A traveller from the province of the Deccan was supposed to bring it: he had come through Panwell, where cholera prevailed, and which is between Poonah and Bombay, and fifteen miles from the latter. In this deliberate passage, it has been already said that it paid a visit to the great army: every division, and almost every regiment, was attacked; and although it did not prolong its stay with the army longer than a fortnight, it destroyed three thousand men out of ten thousand;—some say even that it destroyed five thousand.

Thus we trace the cholera from Calcutta in

* Kennedy.

† It is usual, in maps, to make the upper part represent the north, the lower the south, the right-hand part the east, and the left the west.

a north-west and in a westerly direction; but it was also travelling at the same time eastward and southward. In a southerly direction, it passed down the whole of the coast of Coromandel, which forms the west side of the bay of Bengal. Some of the medical writers on this disease have given maps, showing the date of its arrival at each place. By a map of this sort, published by Mr. Scott, and in a smaller form by Mr. Hamilton Bell, we find the cholera at Ganjam about the middle of March, 1818. Ganjam is nineteen degrees north of the equator, or equinoctial line. In about two months more it was at Vizagapatam, two degrees nearer the equator; in one month more, at Masulipatam, two degrees nearer the equator still; in *one* month afterwards it was at Ongole, *one* degree nearer the equator; and thus it travelled at the rate of one degree of latitude of the earth's surface in a month; that is to say, about seventy miles; and in this way it reached Madras in October, 1818, and, still passing along the coast southward, went on even to Cape Comorin, the end of the peninsula. The first part of this journey of the cholera was performed in dry weather, but the last part during the rainy season, in which the rate of its progress became greater than at first, for it passed over five degrees in three months. It seems also frequently to have travelled *against* the current of violent winds.

There was occasionally something capricious in the march of cholera. Some towns

were apparently passed over for a time, and when the inhabitants were congratulating themselves on their escape, it would seem to come back, and visit them as severely as their neighbours on each side of them had been visited before. Parts of towns, or of villages or camps, sometimes escaped; and some places, though seeming to be in the very track of the disease, remained quite free from it. Now and then a single tent would be affected with cholera, and all the rest free.

The number of Europeans who suffered from the disease does not appear to have been by any means so great as that of the poor natives of India, those especially who were ill-clothed and ill-fed. It was observed, also, that of them, those who had travelled about the most, and known the most changes, did the best. Many had a great dislike to being taken to hospitals, and died for want of help: some refused all help and all medicine, although their neighbours were dying around them.

Soon after the cholera reached Madras, it passed over a hundred and fifty miles of sea to the island of Ceylon. It was supposed to be carried thither from Palamcottah, near Cape Comorin, where it spread with great severity for six months or a longer period. Of 427 men belonging to the army there stationed, who were attacked, 203 died. In a report from one surgeon, it is stated, that of fifty cases at Candy, forty ended in death.

From Ceylon, the malady was supposed to be carried to the island of Mauritius, across

twenty-five degrees of sea, or nearly two thousand miles, that island being twenty degrees *south*, and Ceylon between five and ten degrees *north* of the equator. A frigate, the *Topaze*, left Ceylon when the disease was raging there, in the autumn of 1819, and it would seem that the cholera appeared at Mauritius after the arrival of that frigate. There are very different reports of the number of persons who died of cholera at Mauritius—so different, that it is difficult to know which to believe. Governor Farquhar states that seven thousand died, but Mr. Crombleholm says the number was as great as twenty thousand. So violent was the disease at Port Louis in that island, that healthy and robust persons were suddenly seized with it whilst walking in the streets, and died almost immediately.

As this account of cholera is addressed to unprofessional readers, it would be of little use to enter at any length into the disputes which have existed between those who believe the cholera to be capable of communication from one individual to another, and those who deny it. The measured progress of the cholera, which has been remarked when speaking of its progress to, and beyond, Madras, in which it seemed to travel about seventy miles in a month, has been one of the circumstances on which those have laid much stress, who believe the disease to depend *entirely on the air*. Another circumstance has been, its occasionally missing some towns, and as it were going round them, and then coming back and at-

tacking those towns alone. On the other side of the question, numerous instances have been brought forward in which there has been every reason to think the disease was actually communicated from one person to another, or carried by sick persons from one country to another. The case of Mauritius is exactly a case of this kind, but has been hotly disputed; one party asserting that the cholera prevailed on board the *Topaze* frigate, and was thus conveyed to the Mauritius; and another party denying this in the newspapers, in medical journals, and in conversation, until nobody ventured to believe it. Disputes of this kind have always existed in similar circumstances. It is very difficult to get at the truth, and the more so when people try to conceal it. The interests of ship-owners suffer from quarantine; and if quarantine can be proved unnecessary, they are considerable gainers; so that *their* side of the question is generally very strongly supported. It is also very difficult to prove, in cases where a supposed communication of the disease has taken place from one individual to another, that *all* the individuals were not exposed to a state of the atmosphere which *might* have produced the disease in every one of them. The same kind of dispute might be carried on for ever about our common fevers, or even about the scarlet-fever. The truth is, there is something yet undiscovered concerning the laws of contagion, which will probably explain everything; and until such an explanation can be given, the wisest thing is, not

to quarrel about the facts, but to hear both sides, and provide against the *possible* danger of the disease being one that can be communicated from sick persons to persons in health. As far as regards the appearance of the cholera in the island of Mauritius, the simple facts are these:—They are taken from the journal of Mr. Foy, the surgeon of the *Topaze**. The *Topaze* frigate arrived at Trincomalee in the island of Ceylon, on the 5th of September, 1819, and all the sick men were sent ashore, including some cases of dysentery, of which four ended fatally in the hospital. Whilst the ship was in the harbour, two other men, one a sail-maker, the other a marine, became sick, and died on board the ship, of Indian cholera; one on the 16th, the other on the 20th of September. Others were attacked with the same disease, but recovered; a seaman had a return of the dysentery, and also died. The ship being ordered to the Mauritius, all the sick who had been sent ashore to the hospital were brought on board again, as it was thought the change of climate would do them good, very few of them having quite recovered. On the 9th of October the ship sailed from Trincomalee, with fifty-seven men on the sick-list. The cholera broke out immediately afterwards, attacking seventeen of the crew, of whom four died, including one who had been in the hospital for dysentery. When the ship reached the Mauritius, all the sick who were confined to bed, fifteen in number, were sent ashore to

* Medical Gazette, No. 207.

the hospital at Port Louis. The other sick, and those recovering from sickness, were sent on shore also, and lodged in quarters; six of the men sent to the hospital died—two of dysentery, and four of the consequences of cholera: all these six had been ill of dysentery in the hospital at Trincomalee. Of the other sick, in quarters, four died; they were recovering from the dysentery and cholera, but had a relapse of the dysentery, which carried them off.

Three weeks after the arrival of the ship at Port Louis, the Indian cholera appeared among the inhabitants, and destroyed fifty or sixty persons in a day, chiefly slaves. It immediately appeared with equal violence in other parts of the island. The ship was ordered away—others of the crew, not yet recovered, died of dysentery, but no other case of cholera occurred on board the ship, although all the other ships in the harbour were losing men by it.

Examples without number might be mentioned in which the disease has seemed to come with individuals from infected places; and almost as many examples might be given of persons secured from the disease by being carefully shut out from all communication with persons or places infected: and although it is quite true that many persons escape who are exposed to contagion, this is no more than we see in our common disorder of measles, yet no one doubts that children may catch the measles of each other. Nothing is more common than for two or three children in a

family to have the measles, and for one or two not to take them; and then, the next year, for those one or two to have them. This shows that the constitution is not always in a state to be affected by the poison of a disease.

Now there is one useful observation which a plain reader may keep in his mind throughout all the disputes about contagion—namely, that cholera, and all contagious diseases, must have a *beginning*. The *first* person affected, and somebody must be first, cannot receive it from any other person. Therefore he *must* receive it *from some other source*—most likely from a certain state of the air. *After* he has received it, suppose it to be granted that others may receive it *from him*, still no reason can be given why *some* others may not receive it *as he did*, from that *other* source. Such may be the case all the time the epidemics are spreading:—some people may be taking the disease from one another; other people from the original source in the air.

That there is something more than a mere state of air producing disease is seen in small-pox, where, though taken from the *air* by the *first* individuals, the disease may be taken by *others* from *them*. And that there is something in the cause more than mere communication from one to another is proved, first, as has been said, because the first person affected could not take it from another; and secondly, because after a time persons who have *not* had it do not even take it when exposed:—the disease, we know, does not go creeping

on in a neighbourhood for ever, which it must do if communication were everything: but disappears altogether, and for a long time, and then appears again without our being able to trace it to communication. The same is the case with the measles, with the scarlet fever, with the hooping-cough, and the same may be, and most likely is, the case with the cholera. If so, the long disputes which have taken place may be in part cleared up, and endless contention prevented.

Forty leagues, or about 100 miles, from Mauritius, is the isle of Bourbon, in possession of the French. The governor of it, hearing of the prevalence of cholera in the Mauritius, took every possible measure to prevent its introduction into his own island. But, contrary to his orders, some negro slaves were landed near the town of St. Denis, from a slave-vessel which had quitted Mauritius on the 7th of January, 1820: and in the same town of St. Denis, on the 14th of the same month of January, appeared the cholera. In consequence of the care observed by the governor to prevent the spreading of the disease, only 256 persons were attacked by it, but of these 178 died, or considerably more than half. Still, however, the loss in the isle of Bourbon was only about one in every 1500 persons; but in Mauritius it was at least one in twelve.

In like manner, if the map of Asia is referred to, the cholera may be traced from Malacca, south of the kingdom of Siam, to the

islands of Sumatra and Penang. The capital of the kingdom of Siam is called Bangkok: to that city it is said to have been brought by the East India ships passing up the river, and it there destroyed 40,000 inhabitants.

In the year 1820, the cholera, still proceeding, reached China. The Chinese have a very extensive inland navigation, and taking no precautions against the disease, it spread for two or three years over almost all parts of the empire. So many people died at Peking, the principal city, that it was necessary for the government to furnish coffins.

In the island of Java, which will be found in the map between China and the immense island called Australia, or New Holland, the cholera appeared in 1821. It passed along the coasts of the island, and ascended even the high mountains; and did not leave it until it had destroyed 102,000 people. The large island of Borneo, north of Java, was affected in the following year. In the Dutch garrison at Pontianah in this island, every individual became ill; the only person well enough to administer medicine to the rest was the Resident.

Turning again to the part of the map where Bombay is found, it is seen, on looking westward, or to the left, that the opposite country is Arabia, and that on the Arabian shore, nearly opposite Bombay, there is a town on the coast called Muscat. Between this port and Bombay there is a considerable trade: and in 1821 the cholera seemed to be carried

over the sea from Bombay, and it destroyed ten thousand persons: the bodies of the dead were towed out from the shore and sunk in the sea. The disease was most rapid in its course: some died in *ten* minutes after being attacked. It then seemed to pass up or along the Persian gulf, and at Bassora it killed eighteen thousand, of whom fourteen thousand died in a fortnight. At another town, called Busheer, where much trade is carried on with Bombay, one-sixth part of the inhabitants died. The bazaars were closed, the inhabitants fled from their houses, and the bodies of the dead were left unburied. Shiraz is situated on the south side of the Persian gulf, and its communication with Busheer soon led to its being visited with the cholera. The rich suffered here as much as the poor: the governor of the city at that time was the Prince Royal of Persia; his family was attacked and destroyed. The British Resident was Mr. Rich; he went to bed complaining of being rather ill, and the next morning he was found dead. Altogether, the deaths at Shiraz were in the first few days about ten thousand, out of a population of forty thousand.

From Bassora the cholera was supposed to be carried to Bagdad, upon the river Tigris, where it destroyed one-third of the population: it then traversed the kingdom of Persia, and it was from the seaports of that country, from Baku, or Bakoo, on the Caspian Sea, and not far from the famous mountains of Caucasus—that the disease of which so much has been

said is supposed to have been transported to Astracan, and to the Russian dominions north and west of it; where we shall see it excited equal dread, and prevailed with nearly as much fury, as in the warm regions of India, Arabia, and Persia.

CHAPTER V.

PROGRESS OF CHOLERA TOWARDS RUSSIA.

BEFORE tracing the Cholera farther, we have seen that it seems more independent of climate, soil, and even of those habits of life to which writers on diseases of India have sometimes been inclined to ascribe its occurrence, than it was formerly believed to be. The example of the island of Ceylon may be taken in connection with this subject, even as regards countries within the tropics. Ceylon is situated very near the equator, not more than six or eight degrees from the equinoctial line, or a little more than four hundred miles, the distance from London to Edinburgh.

In consequence of the position of the earth, with relation to the sun, or, in other words, of the manner in which the earth is turned towards the sun in all its journey round it, the parts of the earth called the Poles sometimes receive no rays from the sun, no light and no warmth, for several weeks; and never, during the whole year, feel the full influence of the sun: but, during the whole year, the parts of the earth on which the equator is marked, and all the parts between the two lines on the globe marked "Tropic of Cancer" and