

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

"Tropic of Capricorn," receive a very great share of both heat and light; our long cold nights, and our short cold days are equally unknown to them. Those countries which are nearest the equator, as for instance Ceylon itself, do not feel the varieties of our seasons: they have varieties of winds and rain at particular periods, but the trees are never bare of leaves, and the ground is never frozen; and snow is never seen. The consequence is, that in many of those countries, European people can with difficulty preserve their health or their lives; whilst on the other hand, the natives of such countries when brought to Europe experience as much inconvenience and danger. If the Englishman who goes to live within the tropics becomes liable to diseases of the stomach, liver, and bowels, the tropical inhabitants, or those born in India, who come to England become exposed to consumption, which is a disease affecting the lungs, and to all diseases caused by cold and moisture.

Several things contribute, however, to make some spots in all climates more healthy as well as more agreeable than others; and the climate and soil of Ceylon are less of a nature to dispose to disease than are those of the great continent of India; and much less than the great continent of Africa. The parts of the island exposed to the hottest winds are drier, and those parts exposed to cooler winds are kept in a state of greater freshness than is at all common on the continent of

India; the climate being thus rendered more equal during the year. The low wooded parts of the island towards the sea are the only parts that are considered unhealthy; and this particularly in the dry season. Yet at Ceylon the cholera prevailed no less than in Bengal. And when it spread itself up the great branches of the Ganges, and other Indian rivers, it raged in every city, whatever its position or its soil: no less at Allababad, a city standing on a three-cornered spot of ground, where two great rivers, the Gunga and the Jumna, join, and built on a particularly dry and healthy soil, than at Calcutta, which is, as has been said, founded on nothing better than a marsh.

It has also been remarked by writers on the cholera that the heat of countries between the tropics, and the other circumstances of their climate and soil are pretty nearly the same at all times, yet that the disease does not prevail, or at least has not prevailed at all times. The experience of cholera, indeed, since the year 1817, has proved that it may spread in very various climates, cold as well as hot, and on high grounds as well as in low swampy places. We shall presently see that although introduced into Russia in the hot season, it spread greatly in November, when the thermometer was far lower than we know it to be in our English winter,—lower than the freezing point, lower by sixteen degrees than any point marked on our thermometers,—and continued to prevail during the whole winter:—so that it is quite in vain

to expect cold weather to put a stop to the cholera.

Notwithstanding these remarks, however, it must never be forgotten that *it began* in India, and that in hot countries it has been most fatal in hot seasons. Some observers have thought that the great heat of the houses in Russia, kept warm by stoves, made the malady more prevalent than it would otherwise have been in that cold climate. In its passage, also, to Russia, the places which it visited were many of them certainly, and probably all of them, the most favourable for its invitation and for spreading it. As it proceeded through Georgia, for instance, it appeared at Tifflis, from whence the fear of it did but precede its course into Russia. The heat of Tifflis in the summer is described as intolerable, the thermometer being occasionally as high as 118 degrees of Fahrenheit in the shade. The streets are very narrow; the houses have no glazed windows; the public markets, the baths, the river, and indeed the whole town, are in the utmost degree dirty and offensive. It is situated between a muddy river and a high mountain, amidst parched fields and barren hills.

Jessore, where the cholera *first* appeared in 1817, is crowded, dirty, badly ventilated, and in the midst of marsh and jungle. The poor people of Calcutta are badly fed and miserably lodged, exposed to heat by day, and to bad air by night in close and wretched hovels, round which there is often much stagnant and offensive water.

Again, it strikes the observation, that in its progress from the warm climate of India to the cold climate of Russia, it has not only *clung* as it were to the people in the great commercial thoroughfares, but has come, step by step, through countries in all of which some forms of disease are known to prevail which medical men with one consent ascribe to dirty habits, or to poor living, or to wretched habitations, or other causes which care and good policy might change for the better. Among the diseases of this class may be mentioned the Guinea-worm, as it is called from its principal prevalence in Africa, but which is common in some parts of Persia,—a disease supposed to arise from drinking the water of particular wells, and consisting of the appearance of a small and troublesome worm under the skin, which, however, often gets there *through* the skin itself. Then, in the north of Europe, we meet with a very curious disease of the hair, most common in Poland, but also seen in Russia and other countries, in which the hair becomes matted together into a mass of the most offensive and horrible description. The Poles of a certain class, who are so often affected by it that it is called the *Plica Polonica*, allow their hair to grow as it pleases, never cutting, combing, or washing it, and generally wearing a leather or warm woollen cap. People of this sort must be well prepared, by dirt and negligence of every conceivable kind, to receive and to communicate any violent and contagious disorder.

It was remarked in a former page, that as

civilization advanced, the wild beasts and reptiles of the forest and jungle would gradually disappear. It may be added, with perfect truth, that many diseases arising from the jungle and forest would disappear also. But there are numerous other disorders which cleanliness alone will utterly banish from cities and the habitations of men. Dirt and ignorance, dirt and superstition, dirt and slavery, generally go together, and what tends to remove the wretched slavery, or miserable superstition, or deplorable ignorance of the Eastern and other parts of the world, will tend also to cleanse and purify their cities; and then some of the diseases which now terrify mankind will be heard of no more.

Reflecting on these things, it requires only the plainest understanding to see that it is intended that man should go on improving; and that he cannot improve in any one way without a tendency to improve in every other way. It may as readily be seen how widely the benefits of useful knowledge really extend; for just in proportion to the diffusion of such knowledge there is a spread and increase of all the decent comforts of life, and a freedom gained over sickness and destructive disease.

Let us just consider the condition of one of the great cities of India to which the cholera very soon spread itself from Jessore—the city of Benares, for example, in the province of Behar, to the north and west of Calcutta. The population is about half a million: it

is a city of great trade; from the south of India diamonds are brought thither, muslins from the east, and shawls from the north, for sale: there are manufactories of silk, cotton, and fine woollen; and it is a great mart for English hardware, and other goods from Europe. It is well drained, and stands on a high and rocky bank sloping down to the river; but most closely built, and crowded with beggars and vagabonds. So narrow and so winding are the streets, that no wheel-carriage can pass through them; and the houses rise to a considerable height, and have many projecting verandas, windows, and galleries, and broad and overhanging eaves like the oldest streets of London, of which very few are now to be seen. Narrow as the streets are, and hardly wide enough to allow the proper circulation of air, they are also crowded in every part. *Sacred* bulls, as tame and familiar as dogs, walk lazily up and down, or lie about in the streets; and *sacred* monkeys are clinging to every roof, projection, and ornament, putting their heads and paws, without scruple, into every shop containing good things, and even taking food out of the hands of the little children. At the same time, both sides of the street are lined with beggars, most of them deformed, and covered with chalk and cow-dung; and many of them preserving particular attitudes by way of penance—some walking on one leg; never using the other, which has become contracted for want of use; some holding out an arm in a painful position;

and some clenching their fists until the nails have grown through to the backs of their hands. Hundreds and thousands of these idle and dirty and useless people resort to Benares. And all this crowding of cattle and of men little better than cattle, and all this filth and want of ventilation, it is to be remembered, is beneath an Indian sun, the power of which far exceeds that of the very hottest days of July in England.

When the cholera came to such a place as Benares, we may imagine how well prepared it found the people to be attacked by it. Generally speaking, the townspeople are temperate, and much in the habit of washing themselves in the river; without which it is probable that the whole city would have been made desolate.

Some pages back, when speaking of the contagion of different diseases, it was observed that they must have a *beginning*, and that if people had not forgotten this some disputes about their *always* being communicated from one person to another might have been spared. Another remark, which if it had been always kept in mind would also have spared some disputes, may be made here:—namely, that most or all of the contagious diseases are *only contagious in certain circumstances*. A fever, which would not spread in a clean and comfortable house, will attack the whole family in a close and dirty cottage. A fever which would not spread in a village, will destroy hundreds of people in the narrow streets of an

old neglected town: the very air seems to become poisoned, and everybody falls sick. In one case the disease seems to spread from one to another for months: in the other, two or three are attacked, and the rest escape.

Now if such cities as Benares, and indeed all dirty, crowded, ill-ventilated cities, whether in Asia or in Europe, were made cleaner, and purer, and cleared of idle, useless, and filthy persons—and if, at the same time, all the unwholesome spots of ground, jungle and jeel, and wild forest and marsh, were brought under proper cultivation,—many of the diseases which vex and destroy mankind would be put an end to; or if still heard of, would but attack a few persons, and seldom spread from city to city, destroying hundreds and thousands of people. The small-pox first came to Europe from the crowded and dirty cities of China; just as the cholera came from Bengal. And perhaps it may be said that if the people of Sunderland had not been, in some parts of the town at least, notoriously negligent of cleanliness, and of improvident and intemperate habits, the cholera itself would possibly never have found a footing on English ground. What is of importance to one town is of importance to all towns. Whilst *any* are ignorant and neglected, *all* must be exposed to danger. Knowledge and industry and cleanliness even change, not only the constitution of man, but the very nature of the air which he breathes.