

Warning and admonition to the British public on the introduction (now well ascertained) of the cholera of India / by Sir Gilbert Blane.

Contributors

Blane, Gilbert, Sir, 1749-1834.
Royal College of Physicians of London

Publication/Creation

London : Publisher not identified, 1831.

Persistent URL

<https://wellcomecollection.org/works/jfdueuwg>

Provider

Royal College of Physicians

License and attribution

This material has been provided by This material has been provided by Royal College of Physicians, London. The original may be consulted at Royal College of Physicians, London. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

THE CHOLERA OF INDIA

BY SIR GILBERT BLANE, BART. F. R. S.

The first Edition of this small Tract was circulated early last month,* with a view chiefly to recommend the putting of the Country in a state of defence against this malady, which had not till then been thought of. But whether from want of due attention to this, or the false and mischievous impression made by the pains taken in certain quarters to spread the disbelief of its not being of a communicable nature, it has, in spite of two other editions of the Warning, actually been communicated to one of the great sea-port towns on the east coast of England, as had been predicted. This has made the Tract in question to be called for with redoubled avidity. But the writer of it feeling he has discharged his duty, has yielded to the solicitation of the Printer and Booksellers, to distribute still another and more extended edition, on condition that they shall charge no more than what will indemnify them for paper and print, that is 2d. so as to be accessible to all ranks; and some important additions, particularly in the *practical part*, have been added. 19th Nov. 1831.

THE Writer of this has been irresistibly impelled to this task by a sense of duty to his Country, and his unfeigned anxiety for its safety, embracing that of his friends and family, and he will confess, even the small residue of his own life, the remnant of old age and growing infirmities.

In case it should be asked who is he who thus puts himself so forward on this occasion; it is due to the Public to answer by shewing what claims he has to their confidence.

He has for more than fifty years applied his mind to studies and duties nearly connected with subjects of this nature. His first public situation was that of Physician to the great fleets which were employed in the West Indies and on the coast of North America during the three or four last years of the American war: he served for seven years as a Commissioner of sick and wounded seamen in the late war: he was despatched in 1809 by the British Government on a special mission to the island of Walcheren to inspect and report

on the state of an army of nearly forty thousand men then serving in Zealand, and labouring under a most disastrous state of sickness: he has been twelve years of his life Physician to St. Thomas's Hospital: the Marquess of Hastings, Governor-General of India, when this epidemick made its appearance in 1817, directed copies or abstracts of the surgeons' reports of the army to be transmitted to him: the Court of Directors caused to be put into his hands copies of the Transactions of the Boards of India: he may add that he was engaged for upwards of thirty years in extensive private practice, and was Senior Physician to His late Majesty George IV. during the whole of his reign.

It is not likely that a paternal government, like our own, should be unheedful of the extreme danger of the country, and they accordingly established a Board of Health some months ago, for the purpose of checking the progress of a disease so novel,* so rapid in

* This was effected through the patriotism and philanthropy of the Duke of Richmond, the Post Master General, by his own proposal, and under his own hand, to all the sea-ports of Great Britain and Ireland.

* There are some obscure notices of it in an ancient writer, and what is believed to be an incorrect description of it in some parts of India about seventy years ago. See Dr. B. Hawkins's Description of the Cholera in Russia. A disease answering to its description is also recorded in the 6th and 7th Books of Josephus's History of the Jews.

its progress, so alarmingly near in its approaches: so rapid and so near indeed, that the writer of this ventures to predict, that unless some early, energetic and well-judged measures for its exclusion and prevention be adopted, it will be contrary to the analogy of its past progress if it does not make its appearance in the eastern coasts of England or Scotland in a time too frightful to name. And the writer of this cannot in conscience abstain from mentioning, with due deference to the source from which the instructions of the above-mentioned Board emanate, that he is humbly of opinion, that it is a material omission in them, that the labours of the Board are not required to commence till the disease has actually made a landing, and taken post in the country, without reference to such salutary means as might be had recourse to for repelling and barring it out as it were. This has restricted and rendered in a great measure nugatory the steps that have been hitherto recommended, which consist merely in the publication of some papers descriptive of the steps advisable to be taken for arresting the progress and eradicating the infection when it shall appear; and the contingent good effects of these are also rendered abortive by their being of a nature so coercive and compulsory, that they run the risk of being felt, and perhaps resisted, as incompatible with the liberties and properties of English subjects, an objection expressed by the Board itself. Besides, the pamphlet containing the description of the preventive measures is too bulky for the general circulation which would be necessary for giving it effect by repelling and eradicating the disease; and the writer of this understands from his correspondence with the Board

that there is no intention of adopting immediately any further means. But it seems a further objection to these papers, that they are directed too exclusively to the medical profession; whereas the measures required for the exclusion and prevention of all infection are more matters of *police* than of *medicine*. And so strongly was the writer of this impressed with it, that as a matter of conscience, though labouring under ill health and other embarrassments, he felt himself called upon to interpose by here throwing into the compass of a few pages the fruits of his studies adapted for an early, speedy, and universal circulation among the British community, particularly in these sea-port towns on the east coast of England and Scotland, which may be readily done by the quick methods of conveyance by sea and land now in use. In making these communications, particular attention should be paid to what may be described as the squalid part of the population. For he again asserts, that should this most terrible of all scourges ever appear on British ground, it would first do so in the eastern coasts fronting the Baltic sea, the mouths of the Elbe and Weser.

This mention of the squalid population leads the writer to an exposition of the practical means which it is his chief object to propose for repelling, arresting, and barring out as it were this enemy, before having to grapple with him on his actual invasion.

The means alluded to are founded on the following law, which this as well as all other species of infection observe more or less in diffusing themselves. It is found that the squalid population do, by their filth, stench, bad clothing, bad and scanty diet, and other

constituents of misery, not only contract and harbour infection, but attract it as it were; insomuch that it always happens that in such spots it first takes effect, and if there are no such spots the whole community is safe. This will be best illustrated by an example. When the Court left London on occasion of the last plague in 1665, the Lord Chancellor Clarendon, who accompanied them, relates in the History of his own Life, that the calamity had fallen almost exclusively on the miserable and indigent, so that on their return they missed very few of their friends and acquaintances. It cannot be doubted that since this great and last plague there has been frequent and abundant importation of the *virus* of infection from the manifold increase of commerce, but that it has proved innocuous from its not finding its proper *nidus** or recipient.

Upon such facts are founded certain means not liable to the objection of harshness and illegality, and are applicable before the arrival of the disease, and more likely to be peaceably adopted at the quiet recommendation of an individual, than if they proceed from the hand of power. Instead, therefore, of the business being taken in hand by soldiers, sheriffs' officers, and other emissaries of coercion, certain lenient measures may be adopted within the ministration of unarmed civilians, such as those in the Commission of the Peace or heads of Corporations, and above all of the Clergy.

It is said somewhere that cleanliness is next to godliness, a text

* This can be imputed only to the improvement of cleanliness, to which the increased copious supply of water has greatly contributed, particularly in the parishes of St. George's and St. James's. See Parliamentary Reports.

which might most appropriately be discussed from the pulpit; at any rate by domiciliary admonitory visits, lying so admirably within the sphere of clerical duty. But if brooms, mops and soap are objectionable, on the score of dignity, the same cannot be said of Intemperance, for the censures of which no words can be found adequate; for referable to this vice are not only the loss of health, premature death, and individual suffering, but idleness, sedition, and extinction of, and indifference to, all religious obligations and relative duties, as proved by the vicious application of wages imperfectly earned in consequence of the debility, ill health and sloth induced by such habits, to allay the cravings of a depraved appetite, instead of providing bread for themselves and their families. And were not the disgraceful outrages, the delirious madness and wickedness which broke out this time last year, chiefly imputable to the same cause? I allude to the destruction of human subsistence by fire, and of the renewal of which there is now some appearance.

Now, what I mean, with the utmost humility and deference but earnestness, such as are due to those whom I address, the truly reverend and respectable body of the British Clergy, is to suggest what has been deeply imprinted on my own mind by my professional pursuits, that the excruciating sufferings attendant on the disease in question are such, that if inculcated with due gravity as a sanction of those persuasive admonitions which might be addressed to the labouring poor, it is impossible but that practical and efficient impression would be made on the fears of even the most ignorant and obdurate subjects. I am sensible that some apology is due

on my part for this presumption, but a little explanation will I apprehend remove all cause of offence ; for without such information as medical men alone are qualified to furnish, Clergymen could not be aware of the power of the instrument which is put into their hands ; they could not be aware that this disease may, with truth, be painted as one which is, of all others, attended with such horrible torments, as adequately appreciated and described, may be deemed in effect of equal potency with the gallows as a dissuasive to vice, certainly far more terrible than transportation for life. Very few indeed escape with their life ; and temporal punishments have the advantage of proximity over those denounced in the life to come. The only palliating circumstance is the shortness of the interval between the attack and the grave. But how is this past ? In the midst of health the enemy strikes like lightning, clings to the victim, inflicting the most horrible agonies, throwing the whole frame, limbs body and vitals into* convulsive and spasmodic sufferings, comparable only to the unutterable anguish said to be inflicted by the Inquisition. Of natural diseases the nearest approaching to it is probably one of rare occurrence named *Ileus*† and *Misere* in Latin, the *Iliac* passion in common parlance.

Before proceeding further, it is my wish to settle the exact import of certain terms.

The epithets *contagious* and *infectious* I employ as synonymous ;

* In some rare cases the limbs are thrown into the most hideous convulsions a few hours after death, a circumstance not recorded in any case either ancient or modern.

† It was the great good fortune of the writer of this, to attend successfully a personage of the most exalted rank in this realm, in an attack of this disorder.

but I avoid the use of both as much as possible, and comprehend them both under the term *communicable*. It is also desirable with a view to perspicuity to state, that of the two terms *epidemick* and *endemick*, both denoting diseases of a general and simultaneous prevalence in a great community, I understand by the former (*epidemick*) those which proceed from the exhalations or secretions of a body labouring under the same disease ; of this the plague may serve as an example :—by the other (*endemick*) is meant a disease which proceeds from the exhalations of the earth ; of which intermittent fever, commonly called *ague*, may serve as an example. The want of attention to this simple distinction has given occasion to an incredible amount of unintelligible *jargon* and multiplied sophistries in the wearisome controversy regarding contagion. I need not add that the *epidemick* alone are contagious, that is, communicable ; the other, the *endemick*, never so.

And in order to disentangle the subject from further risk of ambiguity, it is only necessary, in addition to the discriminating character already mentioned, to enumerate a few of the most remarkable peculiarities, particularly those marking its difference from the English cholera, recurring *endemically* in the end of summer and beginning of autumn. The discharges in the Indian disease consist of a liquid resembling thin gruel : in the English disease they are feculent and bilious. The origin and main seat of both is the bowels ; and I repeat that after striking a person apparently in good health like lightning, it never quits him till throwing his whole frame, vitals, body and limbs, into a state of suffering incomparably more vio-

lent than the English malady, it destroys life in a few hours, frequently in a single hour, or less. If there is any disease known in England, which is in point of suffering comparable to the former it is the *Ileus* already mentioned. But the most important difference, politically considered, is that the Indian cholera has now, after long discussion and controversy, been admitted to be *communicable*, whereas the English has never been suspected of this.

And as there is no way more simple and convincing to establish the communicable nature of the disease now in question, than a short narrative of its origin and progress from the mouth of the Ganges to the shores of the Baltic and the banks of the Elbe, its interesting though melancholy history may here be related.

Its origin can be distinctly traced to a place called Jessore,* near one hundred miles N. E. of Calcutta, to which it was brought in August 1817, in consequence of some obscure concurrence of unwholesome circumstances affecting the natives, such as have been known in other instances to have created new diseases in Great Britain and other parts of the world. Preparations were then making for the Pindarree war, by the assemblage of a military force, its stores and baggage, which moved up the Ganges to Upper India, accompanied by this epidemic, and spreading it on all sides against the periodical monsoon to the skirts of the Himalaya mountains, in an irregular manner peculiar to itself, and continued to cling to the army in its movements, which

* About 70 years ago a disease very much resembling it, but too imperfectly described to identify it, occurred in India, but differing greatly in point of extent and duration.

were next directed to the southward, in the direction of the Presidency of Bombay; which place it reached in August 1818, still attended by the epidemic in its peculiarly desultory and anomalous manner of progress. From hence it took a direction eastward, crossing the Decan, still pursuing the line of human intercourse and the seat of war till it reached the coast of Coromandel, along which it took a southerly direction, till it reached that part of it which lies abreast of Ceylon, from the northern extremity of which it is distant about half a degree of latitude. The transition therefore was easy, and was made at this very point, called Jaffnapatam, from whence it spread rapidly, making dreadful ravages. At one of its ports, called Trincomalee, it got on board of the shipping, and broke out in the *Topaze* frigate, in which several men were seized and died; and that vessel having sailed from thence with the disease on board for Mauritius, a voyage of three thousand miles, she arrived there in the end of October, and the disease began to spread in less than three weeks, and by the Report made by the Governor it prevailed to the loss of seven thousand lives, the disease having there not been believed to be communicable. From the coast of Coromandel and Ceylon it took a direction eastward. Crossing the bay of Bengal it made its appearance on the opposite coast, from whence it made its way through the Straits of Malacca and Sunda, and through the great Indian Archipelago to China, where it first appeared in October 1820. It ought to have been remarked in relating what happened at Mauritius, that though the devastation was most deplorable, an instructive fact arose out

of it; for in the neighbouring Island of Bourbon, which, though belonging to France, maintains a frequent intercourse with Mauritius, the disease was barred out by a rigorous quarantine, the Governor being impressed with the conviction of its being communicable. There was indeed an exception, which corroborated the proof; for in consequence of a contraband vessel of one island having intercourse with one belonging to the other, about two hundred lives were lost between the harbour and the gate of the town, where it was so effectually arrested by rigorous separation, and sending the subjects affected to the lazaretto, that no more cases occurred. Through another communication by sea it was carried from Bombay to Persia in 1821, by the trade carried on through the Gulf of Ormuz, so as to diffuse itself through the whole of that empire, with the exception of the two great cities of Teheran, the seat of government, and Ispahan, which were believed to have been saved by the Government ordering the caravans, the route of which this disease had followed, to pass by another route; and this inference is corroborated by its having appeared at Teheran in the year 1829, a year in which the precaution above-mentioned had been neglected.

In accordance with the sketch which has thus far been drawn of its progress, the reader will be prepared to learn that this pestilence was conveyed to the mouth of the Tigris, a river falling into the Gulf of Ormuz; from whence through Bussora and Bagdad, it spread by the caravans to Syria and its towns on the Levant, so well known in European commerce;* and that by the mouths

* It is remarkable enough that while

of the Volga falling into the Caspian sea it spread to Astracan, opening a wide door into Russia, through which it spread in 1823. Since this time it has been threatening the whole civilized world, having reached Moscow the same year. Its having next appeared at Orenburg on the confines of Siberia, then at Petersburg, and through it at Riga, Dantzick, and other mercantile towns of the Baltic, is too recently known to require a detailed narrative. But its arrival at Berlin and Vienna* in the course of the present year has rendered the alarm too serious to be any longer neglected, and we are assured by the continental Journals that it has broken out in the country lying between the Baltic and the Elbe, the aboriginal residence of the same Anglo-Saxons who visited and treacherously overran a certain kingdom, on which they stamped their name about thirteen or fourteen hundred years ago; and the same winds may, in not many hours, waft the infectious matter to our coast.†

Having made this exposition of the progress of the malady, I wish to put the question to any man of sound intellect, that is, any one whose mind is not disqualified by imbecility or prejudice to judge, whether he can deny, nay, whether it is in his power to resist the conviction, that this is a communicable disease. How indeed is this possible in contemplating the

the great Oriental epidemic appeared thus on the eastern extremity of the Mediterranean, the great Western pestilence, the Yellow Fever, was raging at its Western extremity, Gibraltar, Malaga, Barcelona, Leghorn, &c.

* To which may now be added Ham-
burgh, where it has shewn itself since the first edition of this tract.

† Aleppo was also attacked, where 200 persons confined at the residence of the French Consul escaped the malady.

continued communication of it by human intercourse over continents and islands, seas and oceans, and without its appearance in any other place, to which it cannot be traced to that line? The main, and I believe the only plausible cause of this error,* has been the great numbers that have escaped the disease, though equally exposed to the cause as those who have been attacked by it. But let them reflect for a moment, what is known to every peasant, that the same holds true with regard to the ordinary diseases admitted by all to be communicable, such as small-pox and measles. And though all communicable diseases have this in common, they all differ, not only as to the propor-

tion of those left unaffected, but as to the rate of mortality of those actually affected; also as to the susceptibility in various temperatures and climates. In the small-pox and measles for instance, many are left unaffected, and with a smaller degree of mortality than in the plague and yellow fever: the two former have also a wider range, for they spread into every corner of the habitable world; whereas the two others are only known in certain climates and degrees of temperature: and in this respect, it is remarkable that the two latter differ much from each other, for the plague has never been known in the torrid, or frigid zone; and the yellow fever has hardly been known but in an atmospheric temperature at or above 80 degrees. And the Indian cholera is not prevented from spreading in any temperature or climate.

On the retrospect of this, it is impossible not to have some feeling for those who have, either ignorantly or too hastily, neglected preventive precautions; for on the supposition that the disease in question, and some others, are really communicable, the inference is unavoidable, that not only thousands, but myriads have perished by the want of such precautions.

* The only point which seems at first sight utterly inexplicable with regard to the transit of the infection is, how the infectious matter comes, in so many well attested instances, to miss, or make a vault as it were, over certain intervening spaces, and fall upon the population beyond it. But not to mention what may happen through smugglers, deserters, animals, (for infection has been known to have been carried by cats and dogs) and other clandestine or obscure intercourses, it is conceivable that human *effluvia* greatly attenuated may pass over a small district to one the population of which may be more predisposed by a certain different character of terrestrial exhalations, just as they are predisposed by certain habits of life. For it is to be remarked that the intervening spaces are described as very small, so that noxious vapours may be wafted to spaces not exactly conterminous, just as is the case with small-pox and measles. Were it purely atmospheric, neither contact nor proximity would be necessary.—Its more attenuated and distant influence than that of the Plague may be owing to its greater volatility, for one gas may be more volatile than another, as in liquids. We find æther, e. g. more volatile than spirit of wine, and this more volatile than vinegar or water. The Plague has by some been thought communicable by touch only, which though not strictly true, it is certainly not communicable at so great a distance as the Small Pox and some other specific contagions.

Besides the arguments arising out of the history of its origin and progress, there is one founded on a physical principle, which by a strange misconception has been enlisted on the side of non-contagion: the principle is, that the vast numbers who escape the Indian cholera is a proof of its proceeding from the atmosphere, and not from the living morbid human body. Now, what can be more obvious than, that if it proceeded from the atmosphere, not a

single subject could escape inhaling it, for every human being, in common with all living creatures, must communicate, either by respiration or otherwise, with the vivifying principle of the atmosphere, whether pure or contaminated; whereas if it proceeded from the breath or perspiration of the living morbid being, it is not only conceivable, but certain that vast numbers must escape by never coming within the sphere of the morbid exhalations of the sick. And as it is of the utmost moment that there should not remain "a hinge on which to hang a doubt" on this question, lest it should relax the zeal of those whose duty it is to exclude and extinguish this horrible epidemick, the following argument must be added, founded equally as the other on the incontrovertible nature of things. For is it not conformable to the purest maxim of reason, that if the cause of this disease consists in some general affection of the atmosphere which all must breathe, it will not be limited to any particular boundary of space or time, that is, it will be contemporaneous among the community resident in a district; whereas if it proceeds from the human exhalations, it must follow exclusively the movements of those affected by it; and as this is the case as a matter of fact and observation in the cholera, it follows that it must be communicable, epidemick and progressive, not like agues, confined to one and the same condition of the atmosphere.

As it is another peculiarity of this dreadful impending disease, to require above all others an early and energetic practice; it is of the last importance, that as many as possible of the community at large, should have some knowledge of what should with-

out a moment's loss of time be put in practice, and the first seizure is so striking that there can be no excuse for delay.* It is important to observe that there is a certain characteristic which pervades all the stages of this disease, namely, that there is a notable prostration of the whole powers of life, and as this holds true also of those who are most susceptible, this practice applies to diet as well as medicine; so that those who can afford it will do well, in order to fortify their constitutions against an attack, to adopt a generous, but perfectly temperate and moderate style of life. In case of an actual attack, the main objects are to restore warmth and muscular strength. Extreme coldness is indicated by the sensation of chilliness, insomuch that even the tongue is felt cold to the touch, and the main remedies must be such as to restore warmth, and along with it muscular strength. Let the patient therefore on the first seizure be wrapped in hot blankets, or blankets wrung out of hot water, applying also hot bricks, hot salt in a bag to the stomach, legs and thighs. Dry heat is found preferable to the bath. It is of importance that sweat be excited. The internal remedies have universally been found, a free use of laudanum, a small tea-spoonful; ardent spirits, one table-spoonful (brandy has been chiefly recommended) in a large wine glass or more of some hot cordial beverage well spiced. No kitchen salt, thirst being one of the distressful symptoms. Purging salts to be avoided also

* The danger of delay is equally conspicuous in epidemic complaints in the case of individuals as in communities, for it is a remarkable fact that in the last well recorded cases of plague in Europe, those of London in 1665, and of Marseilles in 1720, the calamity was greatly multiplied by the long discussion regarding the reality of it.

as a remedy. Warm purges are preferable. Lord Hastings told me the tincture of rhubarb had a great share, in his own case, in keeping it off at the first moment of seizure, acting at once as a preventive, a cordial, and a remedy. If in two or three hours after the first administration of these remedies no professional assistance should arrive, let the same dose of laudanum and spirits be repeated, and even a third time in case the like circumstances should render it necessary, together with 20 grains of calomel. With regard to the difference of dose as proportioned to age, let one-third be given to those about seven, one-half to those about fourteen : ordinary good sense will regulate this. The secondary remedies are the essential oils of fresh aromatic vegetables, such as Peppermint and Cajeputa, in doses of 20 drops in three table-spoons-full of plain water. The essential oils of the dry spices, such as cinnamon and nutmegs, are not admissible except in doses of five or six drops, on account of their much greater acrimony. The remedies on which most dependance has been placed next to those above mentioned are calomel, in the dose of 20 grains, and blood-letting. It is highly probable

from analogy, that oil of Turpentine, in doses of two drachms or more diluted, could not fail to be beneficial.

In conclusion, it is not out of place here to insert the answer made by Dr. Franklin, when agent of the States of America at Paris, to a question put to him regarding the prevention of infection : "*De s'éloigner assez tot, d'aller assez loin, et d'y rester assez long tems.*" But considering the great variety of ways in which infection is engendered and propagated, this injunction seems much too laconic though so characteristic of the genius of that great man.

In case the reader should discover some want of proper style and arrangement in the preceding pages, the writer begs to offer as, an apology, his age and infirmities, as well as the urgent necessity of a speedy circulation of the knowledge contained in them, and that it was necessary to depart somewhat from technical words and phrases, this tract being chiefly intended for the perusal of those who may be designated *laymen*, as distinguished from those who are members of the profession, and who (as has been already said) have to do with the practical measures more than professional men.

Since the circulation of the first impressions of this WARNING, the most studious pains have been taken to counteract their salutary effect by letters in all the Daily Papers, pretending to shew that this disease is not contagious, and the consequence predicted* has followed ; for these letters, though full of the most glaring sophisms and mis-statement of facts, have already operated so far on the Magistrates of Sunderland, that it is certain no sufficient means have been taken to counteract the infection, and it has actually broken out there in its genuine, and publicly admitted, character, and must do so in other places unless a different conduct is observed.

* See Page 2, Column 1, of this Tract.

Note.—This being the Fourth Edition of this little work in about four weeks, it is necessary to remark that the most persevering pains have been continued to be taken, to throw the public off their guard, by attempts to shew, in the face of evidence as strong as can be presented to the human understanding, that the disease is communicable, it becomes every candid and compassionate person to counteract these baneful endeavours.—Let us for a moment contemplate the consequence of the respective alternatives of this question. In case it should not prove to be infectious, there will be some degree of evil certainly from the interruption of commerce, but there will be much good effected by the promotion of cleanliness and comfort among the poor. But if the other alternative be true, as all the well-judging people in or out of the profession that one can see or hear, believe to be the true state of the case, how deep must the regrets of him be who may have sacrificed the health of the community, not to mention his own peace of mind, to a medical sophism.

The writer had got thus far on this day, the 21st of November 1831, when he was invited to attend next day a Board of Health of the Parish of St. James's, the central Board being believed to be abolished or superseded. With this invitation ill health and the infirmities of old age prevented him from complying.

He has only further to observe, that two and thirty years ago he was called upon by the Privy Council to attend a like * board on occasion of two alarms which arose in the year 1799, the one regarding a threatening danger of the Plague from the commercial intercourse with Mogador, in West Barbary; the other regarding a supposed danger from the Yellow Fever of the West Indies, and which was very generally believed to have been imported from thence the following year to Cadiz. After the numerous meetings and laborious discussions of this committee at the apartments of the Board of Trade, the Report was presented to the Privy Council, and printed in January, 1800; soon after which a Board of Health was appointed by public authority, and the nomination of its members being left to the President of the College of Physicians, he nominated a Board, consisting exclusively of Fellows of the College. This Board, after making several Reports, grounded on that of the above mentioned Committee, was dissolved.

In the present stage of the business, the Writer of this has only to observe, as his humble opinion, that it would perhaps have been well if a more prominent attention had been paid (particularly with regard to Sunderland) to the regular and reasonable supply of so great a necessary of life as Coal, at this season, of which there is a considerable enhancement of price. The Committee of 1799 being aware of this, left out Coal from among the susceptible articles, and no distress ensued. To no other cause can we ascribe the correspondence which arose between the Bishop of Durham and the Authorities round Sunderland a few days ago, bearing upon these subjects, in doing which the Writer takes leave of them, with the suggestion implied in this statement, which he does through the press, his great age and infirmities preventing him from doing so by more active methods.

The Author of the following able and ingenious Illustration of this subject, does not give leave to publish his name. In further illustrating the extreme tenuity of animal effluvia he might have mentioned that of the foot of a hare, or a bird, to the sense of smell of a hound, a fact so palpable to every sportsman, and as demonstrative of the infinite divisibility of matter and its impression on the senses as perhaps any thing in nature that could be named.

* This Board was constituted by the Privy Council, as authorized by a previous Act of Parliament, and consisted, besides the Medical Members (of whom the writer of this, now the sole survivor, and another Member of the Medical Board of the Navy formed part) of the following gentlemen, the Comptroller or a Commissioner of the Navy, two Members of the Levant Company, a Commissioner of the Customs, with the occasional assistance of such as were qualified to afford useful information, among whom the most eminent and useful was Dr. Patrick Russell, who had long been Physician to the English Factory at Aleppo, the whole under the superintendence of the first Earl of Liverpool.

The following Thoughts on the subject of Contagion were communicated to me by a Gentleman well versant in such subjects; they are hasty, but sound. The Writer of them wished to have been more full, but was unwilling as in like cases to make a sacrifice of time, by which such epidemics have been gaining ground while the matter was in debate.

AVERSE to all controversy, it is with extreme reluctance that I notice the attempts which are now daily making to throw the Public and the Government off their guard, by the propagation and advocacy of the opinion that this Disease is not communicable. I am the more unwilling to enter on this subject, as I perceive clearly the strong disposition to abusive language, the last resource of the advocates of a weak cause. I am not surprised at this, for those who espouse a paradox merely for the sake of fame and notoriety must be prepared to support their assumed position by all and every means. Nevertheless, as the specious appearance of some of their arguments, their mistatement of facts, and their studied suppression of every circumstance which militates against their opinion, together with their boldness, and the recourse they have to all the vehicles of public information in a manner which other men disdain, may make an impression on uninformed, though candid minds, I feel it my duty, at whatever cost of my own ease and feelings, to reply to such persons.

It is not my intention to answer all that they allege, as I am sure the greater part of their writings require no answer from a reader the least attentive, but merely to pick out those facts, circumstances, and arguments, on which most stress is laid by these Gentlemen as favourable to their cause, the misleading of the Public conviction on this subject.

First of all, we are told by these men, that this disease confines itself in a great measure to the poorer classes, and but rarely invades the dwellings of their more wealthy neighbours. Now this is a fit specimen of the candour of those Gentlemen. It is no doubt true that this is frequently the case, but by no means uniformly so; and the same may be affirmed of the Plague, also of the Small-Pox and Measles, with whose contagious nature every person is acquainted. But if this be sometimes true of Cholera, the reverse is no doubt often most strikingly exhibited; but these Gentlemen studiously avoid mentioning that it has found its way into the camp and family of the Governor General of India; has cut off at one time all the Judges of the Supreme Court of Bombay; and been most fatal among all the upper classes in Calcutta; that many Governors of Provinces, the most eminent of which was the beloved and admired Sir T. Munro, rich native Indians, Persian Satraps, Russian and Polish Generals commanding armies, Ambassadors, the families of Sovereigns have fallen victims to this dreadful scourge. These Gentlemen do not even mention that in those instances where the disease has been nearly confined to the lower and ill-fed classes, the few persons in the better walks of life who have been attacked, have been those who were, as matter of duty, in immediate communication with the sick, such as the Physicians, Surgeons, and Hospital attendants. The reason, however, of the lower classes being its principal victims is so obvious, that I am convinced any judicious and unlearned person will easily point it out; and I certainly was not prepared for such a display of ignorant wonder on the part of a physician. The stomach and bowels are the throne of this disease. How then shall we be surprised that low livers should be the chief victims of its contagion!

We are also told by these Gentlemen, that this disease is strongly manifested in particular spots, whilst others are spared; that particular towns and villages lying in its

route and surrounded by infected districts have been exempted from its influence; that it has devastated one side of a street, while the other side has not presented a single case. Such no doubt is sometimes the case; and it is one of the anomalous circumstances which is not always easily explained. But in God's name, what explanation does this favourite doctrine of atmospheric influence give of such facts? The atmosphere pervades every where; is as necessary to one town as another; to one side of the street as the other; and is the same identical atmosphere to the infected as to those who escape. Wherever therefore the materials of the disease exist, the common air, if tainted, ought to communicate this distemper. Surely no further observations can be wanted to wipe away for ever such nonsense. But let me ask these Gentlemen, what quality in common they have found in that air which is breathed on the banks of the Ganges and the Hooghly in the dog-days, and at Moscow with the snow on the ground; what is there in the humid regions of Alexandria, Grand Cairo, in the Delta of the Nile and Bagdad, in common with Teheran and the parched plains of Persia? Surely the human mind cannot conceive any thing so diametrically opposite. These Gentlemen should be prepared to assert that this disease has no cause at all, for such an assertion is really not so absurd as the other. But the fact of this disease sometimes pursuing an apparently anomalous course is no doubt true. It is equally true, however, of small-pox, plague, and other known contagious disorders. Such facts may be explained with difficulty in particular instances; but it will surely be easily conceived that they admit of a readier explanation from the irregularities and accidents of human intercourse than from the all-pervading and constant influence of the atmosphere, which wafts the same health and disease to the whole community.

But these Gentlemen when asked to explain to us, under their idea of atmospheric influence, why this disease confines itself in its progress to large cities, to the navigable

rivers, the high roads of commerce, and the haunts of men, exclaim with an affected indignation, "why where should an epidemic shew itself but among men? Shall it not appear in those places where it finds food for its ravages?" I will tell these Gentlemen how and where an epidemic wafted on the wings of the wind should shew itself:—not on a navigable river in the train of a lazy boat; not on a high road, following the sluggish rate of man's travelling, but borne with the rapidity of thought like our late epidemic Catarrh, striking down at one and the same moment, the inhabitants of Paris, of Dover, and London, making itself felt at the same instant in Wapping and in Chelsea, in Rotherhithe and Kensington. It should not be found in the Polish and Russian camps alone, not in Riga, Dantzic, Petersburg, and Warsaw alone, but on the solitary plains of Livonia, in the mountains of Galicia and Hungary, and in places where we have not yet heard of it. Such is my idea of an atmospheric epidemic; such is certainly not the history of Cholera.

As an example of the many unscrupulous artifices to which the advocates of non-contagion have had recourse, let one out of many suffice. It has been asserted by the most sovereign asseverations, orally, in print, and in harangues at Societies, that the cholera did not exist on board of the *Topaze* frigate on leaving Ceylon, and on her passage to the Isle of France; the writer of this has consulted the Surgeon's Journal of that ship at that time, and there is most positive assurance of its existence, such as it is utterly impossible to deny, as any person of decent character and manners, who will request a sight of that Journal deposited at the Victualling Office may convince himself. Few more flagrant instances I believe could be adduced of the inscrutability of human motives, than this attempt to prove the whole story of the *Topaze* a forgery. No motive that I can conjecture, or have seen or heard alleged, except a sort of morbid pruriency for notoriety, can account for it.

CHIEF OF THE BUREAU

DEPARTMENT OF THE INTERIOR

THE CHEMICAL PATHOLOGY

REPORT

THE CHEMICAL PATHOLOGY

ANALYSED BY

RIDGWAY AND SONS, PICCADILLY.

HATCHARD AND SON, PICCADILLY.

LONDON

PRINTED BY A. HITCHCOCK, 15, N. B. STREET