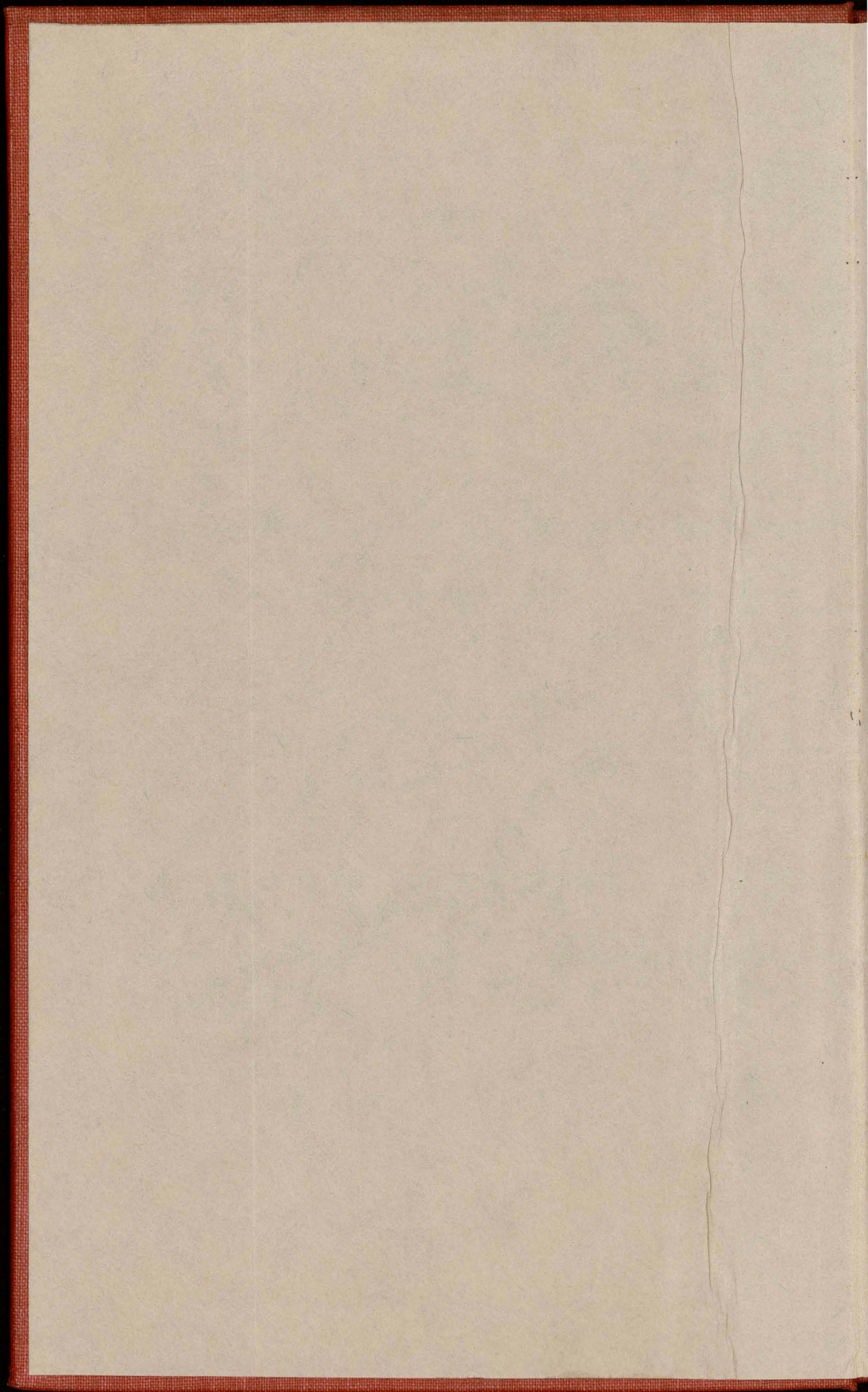
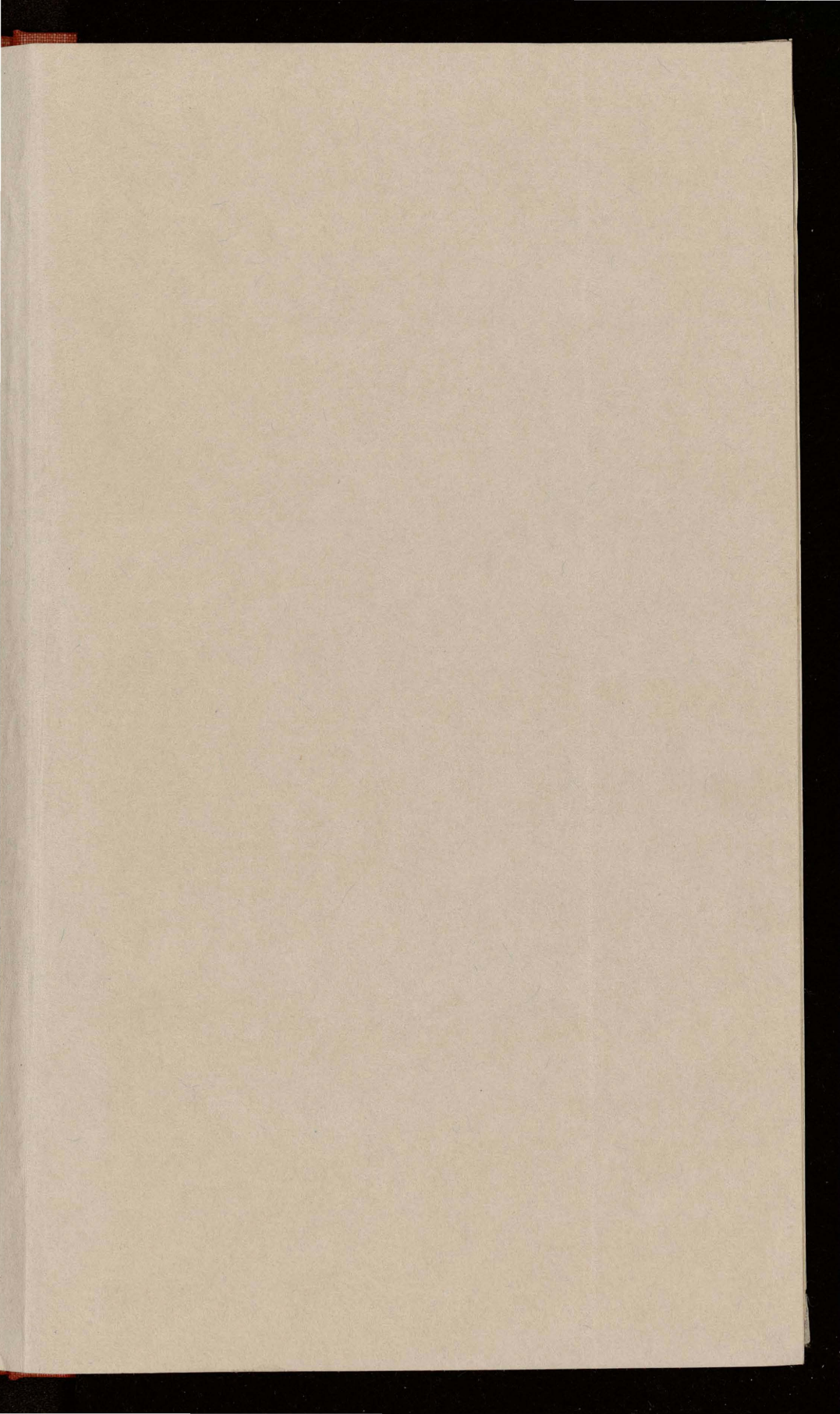
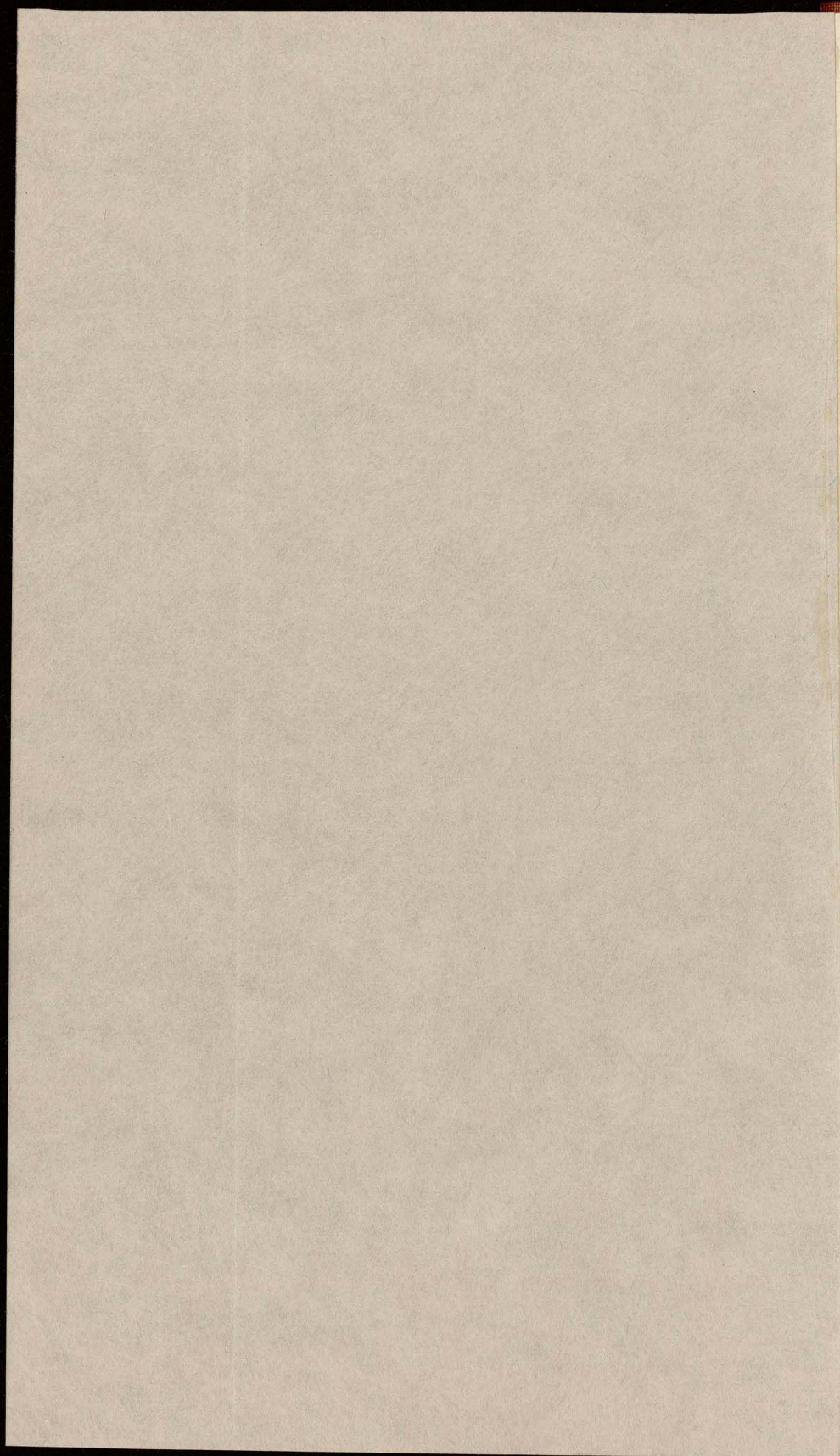


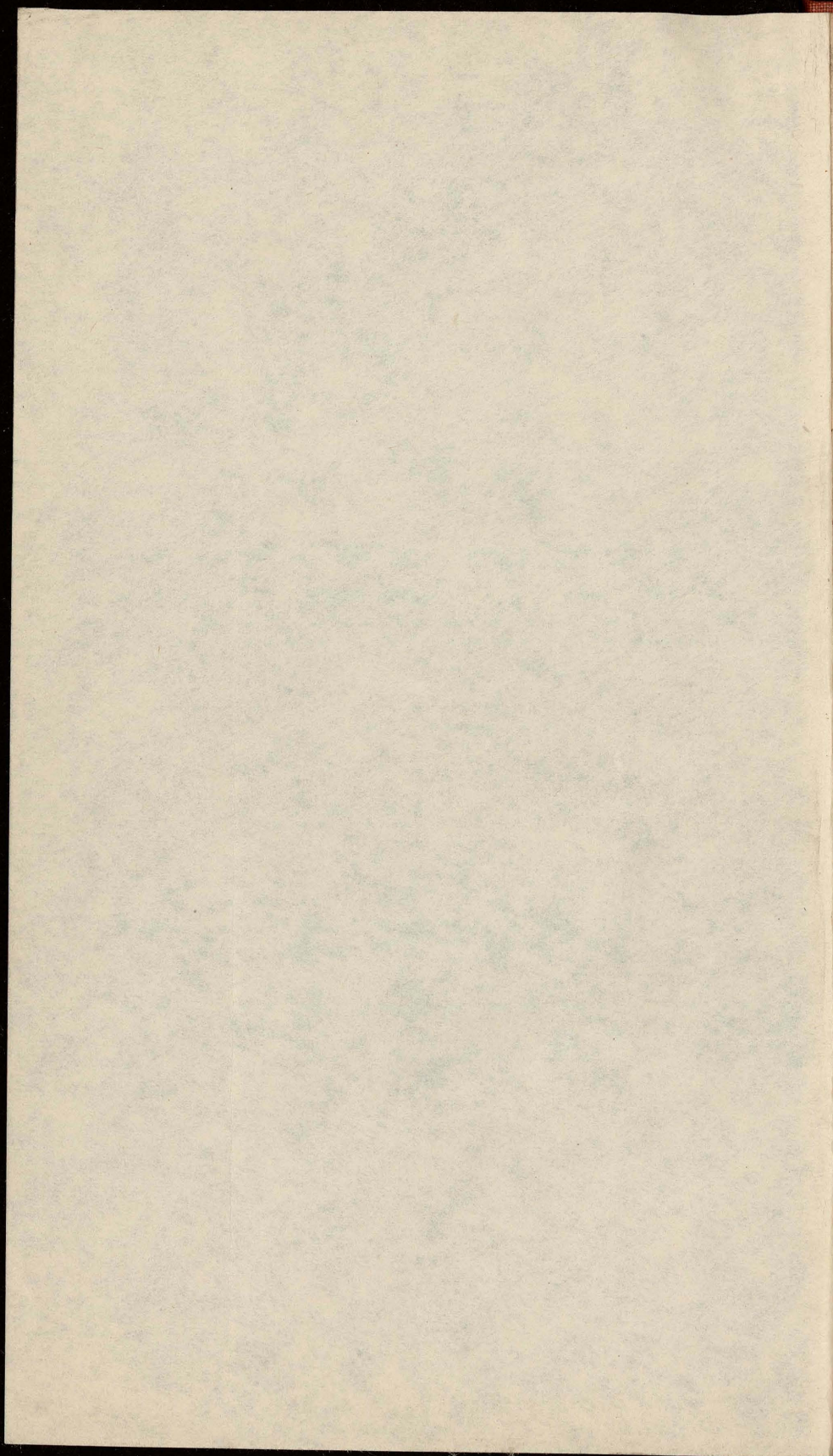
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WHITE - CHOLERA MORBUS 1834









White (W.)

TREATISE

ON

CHOLERA MORBUS;

THE

METHOD OF TREATMENT,

AND

MEANS OF PREVENTION.

DEDICATED TO

HIS IMPERIAL MAJESTY, THE EMPEROR OF RUSSIA.

JUNE 30, 1831.

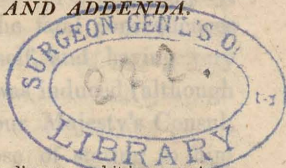
BY

CAPTAIN W. WHITE,

LATE OF THE HONOURABLE EAST INDIA COMPANY'S SERVICE.

SECOND EDITION, WITH PREFACE AND ADDENDA.

"Experientia Docet."



"Sixty thousand souls have perished in these kingdoms by the disease; and it is now universally admitted by the medical profession, that it is not only the only means of prevention, but that, if taken in the premonitory stage, it never fails to prevent collapse, and to be always certain of cure."

LONDON:

PUBLISHED BY W. STRANGE, PATERNOSTER-ROW;
AND TO BE HAD OF ALL BOOKSELLERS.

1834.

Price One Shilling.

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WCB
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SECOND EDITION, WITH ERRATA AND ADDITIONS



LONDON:

PUBLISHED BY W. LAMON, PATERNOSTER ROW.

AND AT THE HEAD OF AD. BOURNEMAN.

1834

Price One Shilling

DEDICATION.

TO HIS MOST EXCELLENT MAJESTY, NICHOLAS,
EMPEROR OF ALL THE RUSSIAS.

SIRE,

MAY it please your Majesty to pardon the boldness of this address; and further condescendingly to admit of an explanation of the causes which have led to it.

My attention was first attracted by the highly humane and praiseworthy considerations which induced your Majesty to hold out so large a reward, £.1100, as a premium for the best treatise that might be transmitted to Petersburg, on the Cholera Morbus, as “no medical work hitherto published on this fatal malady had been found satisfactory, *nor had the suggestions contained in such works succeeded in arresting its devastating course*, which, on the contrary, becomes every day more extensive, and seems to threaten the whole of Europe.”

Having passed many years of my life in India, and, unhappily, during that period having seen much of the fatal consequences attending the disease; having had it myself, and having very successfully treated it in many instances, I was induced (although no medical man) to pay my respects to your Majesty's Consul, George Benkhausen, Esq., for the purpose of stating to him what I had seen, and giving my views, however unimportant they might be, on the subject; in order that if he considered that any observations I could make could possibly be of any utility, they might be submitted for the consideration of your Majesty's physicians at St Petersburg.

The result of this interview was exceedingly gratifying and flattering to my feelings. Mr Benkhausen evinced the most intense anxiety on the subject, and received my communications with great condescension and kindness. He was pleased to in-

timate his wish that I would commit my sentiments to paper, that they might be transmitted to St Petersburg, to take their chance for the prize.

Although I cannot but feel greatly obliged to your Majesty's Consul for the kind motives with which he was actuated, still I must confess I am satisfied that, from liberal and generous motives, he was pleased to attach more value to the communication than it deserved.

The following pages were written in February last, but owing to ill health I was unable to copy them for transmission until early in May. Agreeable to permission, previous to transmission, they were presented for the perusal of your Majesty's Consul. A few days since they were returned, with a suggestion for the omission of certain parts which were considered extraneous.* As this alteration would occasion a considerable delay in the despatch, and much time would consequently be lost before it could reach St Petersburg, that, too, at a period when the most intense anxiety prevails throughout Europe for information that can throw any light upon the subject, it appeared to me that the delay would procrastinate the chief object I have in view, until too late, viz. the contributing my humble and feeble efforts to promote the general welfare of mankind. I therefore considered that by publishing it in England, if there were any statements, facts, or remarks, contained in it worthy of consideration, they would the more speedily and effectually be promulgated to the world, and by those means the humane considerations of your Majesty be best promoted.

By adopting this course it will appear obvious that although encouraged to write for the prize, I could not have entertained the vanity or hope of obtaining it: and that my humble efforts, however ineffectual, have been directed, solely and simply, to assist the humane intentions of your Majesty for the welfare of mankind at large. It is upon these grounds I venture to dedicate these few pages to your Majesty.

* Remarks upon Mr Ainslie's work, and a statement of serious disputes in India by some medical men on the question.

I trust I shall be pardoned for taking such a liberty. I might, it is true, have dedicated it to some high-sounding titled name or names in my own country, whose vanity might have been flattered at the, may I not say unmerited, compliment, and who might, or might not, as the whim took them, have become the patron or patrons, protected the work, and held me harmless from loss. But where am I to select any person or persons who have a claim on the present occasion to any such fawning tribute of respect? Has not the Cholera Morbus been raging for these fifteen years past with most awful and terrific violence in the British territories in Asia, and millions of lives fallen victims to it, (estimated at sixty millions in Asia,) and the details heard of in England with little better than indifference! and what encouragement has there yet ever been held forth to induce men to devote their attention, to sacrifice their time, and probably their health, to the discovery of the cause of the disease, &c.? Your Majesty was the first, and hitherto the only one, notwithstanding every part of Europe is threatened with a visitation with the awful scourge, who has held out any stimulus to exertions, or offer to reward those who might devote their time and labour to render so singular a benefit to mankind at large.

Here is a sufficient cause why this pamphlet should be dedicated to your Majesty. It is but an honest and proper tribute of respect, from,

Your most obedient,

And very humble servant,

WILLIAM WHITE.

London, June 30, 1831.

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 called to your Majesty. It is but an honest and proper tribute
 of respect from me to throw it in testimony of esteem to
 all of distinction by illustration and to those from all sides
 may to encourage our most obedient servants to do their
 duty to be best promoted.

By accepting humble servant and
 William White
 to your Majesty's service
 London June 30 1831

Mr. White's name is mentioned in the list of names of persons who have been
 in the service of the Government of India.

men in the world, contagionists and non-contagionists; and who have more scientifically and pathologically than I could do explained why and wherefore.

The deductions and illustrations of these medical authors, and those whom I had consulted, and matured my own experience and judgment upon, are a mass of evidence, I submit, highly interesting and useful to the medical profession at large. A due consideration of them will remove much of the

PREFACE.

IN obtruding a Second Edition of this pamphlet upon the notice of the world, I am actuated from a twofold sense of duty—the one towards myself, the other to the public.

It is now three years and a half since I recommended to the Central Board of Health, before the disease had reached England, the use of calomel and aloes as *a means of prevention* of Cholera Morbus. The readers of *The Morning Advertiser*, and the *Standard*, (who quoted it,) will recollect how my recommendation was treated with disdain by Sir Henry Hallford and the Board; as also how Lord Grey acted, upon my remonstrance with his lordship upon the conduct of that Board.

Since that period about 60,000 souls have perished in these kingdoms by the disease; and it is now universally admitted by the Profession that it is not only the means of prevention, but that, if it is taken in the premonitory stage, it never fails to prevent collapse, and always certain of cure.

The date of my suggestions (Feb. 1831,) will prove the priority, though several medical men are now taking great credit to themselves for having lately discovered it. However, this for their consolation, Professor Lizars, and innumerable medical men of the north, two years and a half ago, followed the plan, and declared that “calomel and aloes were the only means of prevention; and that they saw no other measures by which the dreadful malady could be expelled from our shores.”

I was induced to recommend it, as “no medical man had said a word as to any measure which might be resorted to as *a probable means of prevention*.” The grounds upon which I did so, although *incomprehensible* to the Central Board of Health, have ever since been recognised by most of the first medical

men in the world, contagionists and *non*-contagionists; and who have more scientifically and pathologically, than I could do, explained why and wherefore.

The deductions and illustrations of these medical authors, and those whom I had consulted, and matured my own experience and judgment upon, are a mass of evidence, I submit, highly interesting and useful to the public, as well as the medical profession at large. A due consideration of them will remove much of the fear and anxiety that at present prevails; and give the public confidence in the medical profession, so soon as unanimity of opinion prevails as to the means of prevention, and conformity of practice of cure in the premonitory stages.

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CHOLERA MORBUS.

NOTWITHSTANDING the numerous essays which have been written upon the remote and proximate cause of Cholera Morbus, and the remedies for the cure of it, so much are writers at variance, so contradictory and irreconcilable are their different opinions, both as to the cause of its origin and method of treatment, that it must be difficult, even for a medical man who has not had practical experience in the disease, to determine whose opinions to adopt, and what practice to follow. Hence arises an evil of great magnitude, and of a most dangerous tendency. For while such doubts and differences of opinion exist amongst professional men themselves, the public mind must be greatly agitated, all confidence is destroyed, and alarm and mistrust prevail.*

* "The writers on this subject seem to have been more eager to advocate and support particular opinions, than to enter into a dispassionate and impartial inquiry concerning a matter in which the community has so awful an interest."—G. H. BELL.

"Had we been made aware of the nature of the disease, its general rise and progression, such as dreadful experience has conferred upon us, * * how much modified might have been those dreadful statements, official and non-official, which diffused throughout the land, have scared the stranger from our walls, and carried horror and alarm into every family in the kingdom."—Dr D. B. WHITE.

"Little was to be learned of the right treatment of the disease in Mus-selburgh and Tranent. The practitioners were in dismay, and knew not what hand to turn to. Their remedies were as various as they were uncertain; and I retired from the scene, when the opprobrium Medicinæ stared me in the face, and taught me an imperative lesson of how poor a thing our boasted art is when God is against us."—KIRK.

"Hitherto setting at defiance all human means of retarding its progress, or of lessening to any considerable extent its average mortality."—G. H. BELL.

"I consider the pernicious doctrine of contagion has let loose upon the public mind one of the strongest auxiliaries to the propagation of the disease, fear. This is well known, on ordinary occasions, to produce the premonitory symptoms of cholera, or diarrhœa. The doctrine of contagion hardens the heart—destroys the finer and more amiable feelings of our nature, and kindly affection of the father for his family is blunted or destroyed; the still stronger link of nature between the mother and her offspring is broken, and she looks upon her innocent children as sources of danger. The hitherto affectionate children, in the deceptive agonies of self-preservation, abandon their parents to perish in the hand of the stranger, and desert them in the last necessities of mortality. No tear of sympathy or compassion falls to soothe the agony of

Although no medical man myself, circumstances in which I was placed required that I should for self-defence, as well as the cause of humanity, study the best cure for this most dreadful of all maladies. For the attainment of this end, neither application nor expense was spared.

Having served three years at the practice of surgery, under my father, the late Mr White of Bath, with the advantage of daily visiting an hospital of several hundred patients, attended by most skilful physicians, Doctors Crawford, Gibbs, Moodie, and Barlow; by these means I acquired a tolerable knowledge of medicine, surgery, compounding, and the utility of most drugs. This superficial medical education I found exceedingly useful during my military residence in India, particularly so during the years 1817 and 1818. At those periods I was commanding the provincial battalion of Moorshedabad, a regiment of one thousand privates, stationed near to the city of Moorshedabad. During those years the Cholera Morbus was raging with most terrific violence in that city, and producing at one period, according to the returns of the magistrate, the appalling number of from one thousand to eleven hundred deaths a-day.

Mr Ainslie, formerly a medical gentleman of the Honourable East India Company's Service on the Madras establishment, who, in 1827, published a letter on Cholera Morbus, addressed to the Court of Directors, states, "it was at Jessore, in 1817, the Cholera Morbus first broke out with such virulence."*

The guards at Jessore at that period were under my command, furnished from the provincial battalion of Moorshedabad. The havoc the disease made upon the guard, induced me to relieve those whom it had spared; but no sooner had the new men arrived than they in their turn fell victims to it. The disease about the same time made its

departure from all we hold dear; no kindly hand is raised to close the eye of death. In this selfish and cowardly contest for life, the ennobling attributes of benevolence and education are disregarded, and civilized man becomes a savage."—PROFESSOR LIZARS.

"Hundreds of miserable creatures, the hapless victims to antiquated prejudices, might have been preserved."—*Ibid.*

"By early attention to the progress of the disease has been arrested, when there was much reason to believe it might soon have assumed a more severe form."—FIFE.

"Diarrhoea, in this country, *always* precedes cholera asphyxia. This diarrhoea is always a curable complaint; and consequently this formidable disease, the ways of which were wrapt in mystery, and inspired us with no feelings but gloom and despair, may now be calmly viewed by the eye of philosophy and common sense as a malady, the secrets of which are open to us, and the control of which we have in our hands."—KIRK.

"The earliest symptom of cholera is very generally diarrhoea, which, if attended to before the appearance of collapse, with much celerity admits of a cure."—GREENHOW.

"In its first stages it is easily curable by proper means, and it is certainly highly important that every publicity be given, with the knowledge of these facts, throughout the whole empire."—MACALLUM.

* "Why should Jessore be considered as the sole spring of so much misery? and what was there that could not have been generated in fifty other such cauldrons of impurity."—AINSLIE in 1832.

appearance at Moorshedabad. My duty led me constantly to the hospital, where I daily, nay hourly, witnessed the fatal and melancholy ravages it was committing.

I have considered this explanation necessary to justify the observations I am about to make, whether well or ill-founded is for the consideration of more enlightened and better informed men. The object, however, I trust is good, a sincere desire to render whatever little assistance I can to the suffering cause of humanity, by detailing the little practical experience I have had.*

The most prominent of all the publications that have appeared is Mr Ainslie's "Observations on the Cholera Morbus of India, dedicated to the Honourable the Court of Directors." Written, as he observes, (p. 5), "after having read most of the publications on the subject of Cholera which have been given to the world. Much good, or great evil, must naturally therefore be expected to emanate from a work proceeding from the pen of a gentleman of such high respectability, enjoying the highest opinion of the Court of Directors, and who, it appears, "resided in India for a period of upwards of thirty years."

The subject for which the pamphlet was written was truly praiseworthy, viz. "to elucidate what seems to have perplexed many;" viz. the remote cause of Cholera Morbus, and the best method of treating it.

As regards the first—the remote cause—almost every medical man has differed in opinion, and come to no satisfactory conclusion upon the point at last. I shall not attempt to hazard an opinion upon the all-mysterious ways of Providence, some of which must and ever will baffle the intelligence of the most learned and scientific men, and their conclusions at last terminate in conjecture.†

Mr Ainslie at times has varied his opinion. At one period, he "supposed that it might owe its origin to a peculiar distemperment in the atmosphere, a certain subtle something, not in chemical solution with the component parts of the air, for then there might be a chance of detecting it, but rather suspended in it, and conveyed by it, like a mote in the sun's beam, in a way that we are altogether unacquainted with." Latterly, he has resolved upon its proceeding from "a diminished or perverted distribution of the galvanic principle of the atmosphere."‡

* "Every additional fact connected with this disease, serves the more strongly to enforce the conviction upon me, that, by proper means, its fatality might be almost totally averted. I consider the extent of its ravages only formidable from neglect."—DR D. B. WHITE.

† "So unsuccessful have been the attempts of medical inquirers to ascertain the nature of what may be termed the reigning scourge of the human race, that the most sanguine of discovery are now ready to exclaim they despair of even being enabled to throw the least degree of light on such mysterious phenomena."—HAY.

‡ "After a good two thousand one hundred and eighty years of research (Note.—From the time Hippocrates was born to the present day) by many ingenious and laborious men, there are still such diversities of opinion existing, that scarcely two physicians agree concerning the disease which now rages; and * * upwards of a third of those seized die."—AINSLIE in 1832.

Whichever of those opinions may happen to be most correct, seems to be of very little importance, as, at p. 15, Mr Ainslie declares, "it has defied alike the practical and ingenious, either exactly to comprehend its peculiar nature, or to establish a mode of treatment, which, by its reasonable success, should afford some well-grounded belief that the cause of the malady had been clearly ascertained."*

Some medical men ascribed the disease to proceed from the grain of which the food was prepared; others, to the water drank; some, to "a peculiar inactivity of the proper absorbents of the stomach;" to "undue action of the atmosphere," &c.†

* "It has poured in its work of destruction without any evident cause, and as capriciously, if the phrase may be used in this sense, chose the inhabitants of one side of a street for its victims, while it left those on the other undisturbed."—AINSLIE.

"After a remission of the disease for nearly eight days, (which took place upon the return of soft weather), we had a renewal of it (with great violence during two or three days.) In this attack the better classes were its principal victims. * * One of the first of these cases was that of Mr S., who had been subject to disorders of the stomach and bowels for some years. He died in the midst of a numerous family. Mr A. also fell a victim to the disease, surrounded by his family. Mr M. was attended by his mother, sister, and servant. Mrs A. and Miss C. also died of cholera; and in none of their families have there been any farther spreading of the malady. So much for 'contagion.'—DRS LORIMORE and BURTON, *on the Cholera at Haddington*.

† "The atmosphere is unseasonable,—it is warm, damp, and surcharged with the electric fluid; it hence impairs the whole nervous system, especially the ganglionic system of nerves. The pulmonary plexus is, therefore, unable to endow the lungs with power to oxygenate thoroughly the blood—the cardiac plexus to enable the heart to circulate perfectly the blood—the gastric plexus to empower the stomach to digest the food—the hepatic plexus to influence the liver to secrete the bile—and lastly, the renal plexuses to give energy to the kidneys to secrete the urine; the atmosphere stimulates imperfectly the cutaneous nervous filaments, and capillary blood vessels. * * The consequence of this deficiency of nervous energy to these important organs is, that the chylopoietic, and assistant chylopoietic viscera become deranged. * * When an individual, thus conditioned, with his digestive organs deranged—but much more so with these digestive organs overloaded with indigested food and fæces, which have irritated them, or produced diarrhoea—is exposed to cold, so as to check the cutaneous functions, a two-fold disease is produced—a violent colic and fever, or Cholera."—PROFESSOR LIZARS.

"From every thing that we have seen of this epidemic, so far as it has gone in this country, and from all that we have learned of its progress in others, it is clear that it is preceded by a slight and often imperceptible, but general, disorder of the digestive functions, which a very inconsiderable cause suddenly connects into positive disease, with all the phenomena of the epidemic. Sedulous attention, on the contrary, to every gastric or gastro-enteric uneasiness, disarms the epidemic of its power, and appears to render it of little moment whether the disease is communicated from one to another or not."—*Edinburgh Medical and Surgical Journal*, Feb. 1832.

"The first stage is a state of gastric and intestinal derangement, with vascular excitement, or perhaps more properly speaking, vascular irritation, which may arise from other causes, and may pass away without being followed by the diagnostic symptoms of cholera. But during the prevalence of that disease, it is a condition of the system which ought immediately to receive the closest attention, for we know not how soon it may pass into the severest form of the second stage. * * The marks of gastric and intestinal irritation sometimes show themselves for many days, in diarrhoea, loss of ap-

According to Mr Ainslie, the remote cause of Cholera Morbus in India, "*a warm region*," proceeds from a "perverted distribution, or less abundant state of the galvanic influence in the air;" and he observes, that "in warm regions of the earth, where life abounds, this element is certainly not more plentiful than in more temperate regions, and far from deficient in those frigid territories where no living thing exists." How are we then to account for the remote cause of Cholera Morbus in Russia, a cold climate, where the electric fluid is "equally, if not more plentiful?" May we not, therefore, with Mr Ainslie, exclaim, (p. 24,) "We may safely say that when Sydenham ascribed endemic to a secret constitution of the air, *he gave us as satisfactory an account of it* as any modern author has done."*

For philosophical and scientific objects, the ascertaining the remote cause of Cholera Morbus is certainly very important; but for immediate purposes, the means of prevention, and method of cure, are far more so.

At different times, seasons, and places, the disease has appeared under a variety of forms.

On the coast of Coromandel, Mr Ainslie observes, "*in every case*," as he found it, "he discovered that the ailment could be traced to acid or acescent substance, such as lime juice of a bad quality, unripe fruit of every kind, crude vegetables," &c. He, therefore, had recourse to antacids, "from two to three drachms of the sub-car-

petite, nausea, pain at the stomach, with quick irritable pulse, and the other slight symptoms of indisposition which have already been noticed. The secretions are not yet suspended, and the diarrhoea is perhaps rather of a bilious than of a serious nature; the whole train of symptoms are distinctly referable to the digestive derangement."—*Greenhow*.

"Its first symptoms are gastric irritation; and if in this stage remedies are used to rouse the energy of the bowels, and to stimulate them into such action as to throw off offending causes, the future germ of cholera may frequently disappear, nay, even the efforts of the constitution may work it off, and those dreadful symptoms which characterise cholera asphyxia may never appear. The skilful practitioner will now give pills composed of scammony and aloes."—*Kirk*.

"It is remarkable that, in its progress, very few instances of the disease have occurred in persons perfectly healthy; they, to a certain extent, appearing to enjoy something like immunity from the severer symptoms at least; the aged, poor, and laborious, the dissipated, with those subject to disease in the digestive organs, and whose minds were weakly constituted, being amongst its earliest victims, and almost invariably experienced the attacks."—*Drs LORIMORE and BURTON on Cholera at Haddington*.

"After all, the result at which we arrive is, that we know absolutely nothing about the remote cause of cholera. This is the conclusion to which all practical writers have come."—*G. H. Bell*.

"It is an invisible, inodorous, intangible poison, capable of producing the most malignant effects upon the human constitution; but how produced, or whence proceeding, is more than we are likely to determine in a satisfactory way."—*Greenhow*.

"The manner in which cholera spread in India is exactly that in which all pestilential diseases are propagated. They break out simultaneously in many places distant from each other; and cases appear in a town or village without the least possibility of contagion."—*Glasgow Medical Journal*, No. XVIII.

bonate of magnesia in a little tepid water, and so effectual was the remedy, that in few instances had he occasion to repeat it; and by these means he saved the lives of many hundreds." Yea, "*ninety-nine out of a hundred!*" *

This statement, however, forms a most extraordinary contrast with the assertion at p. 15, that "it had *defied* alike the practical and ingenious, either exactly to *comprehend its peculiar nature*, or to establish a mode of *treatment* which, by its *reasonable success*, should afford some *well grounded belief* that the *cause* of the malady had been *clearly ascertained*." †

The disease which Mr Ainslie saw, and which he thus describes, is any thing but the Cholera Morbus as I have seen it or heard it described:—"The patient *out of sorts*, a disrelish for food, slight degree of headache and chilliness, bound in his bowels, tongue foul, pulse quick and small, succeeded by vomiting, diluents rejected for three or four hours, until, at length, from painful and frequent exertions in retching, bile, by regurgitation, finds its way into the stomach, and appears to give the first check to the disease." ‡

In such cases as Mr Ainslie thus describes, the antacids may probably be successfully applied, but how far it will be proper, "*in every case of Cholera*," that they should be tried "*over and over again*," before any of the various medicines recommended by other equally enlightened practitioners is resorted to, is a very serious question when life hangs upon a thread.

It is admitted by all practitioners, that the disease presents itself in a *variety of forms*. How is it possible then, that any general rule can be laid down for its treatment? Must it not depend upon the skill of the medical practitioner to administer according to existing circumstances? The formidable manner in which I have seen the disease, have had it myself, and seen hundreds expire under it, induces me to a conviction that the practice Mr Ainslie recommends is totally inadequate to the exigency of the moment. Most of the cases which I saw in 1817-18-19, the attack was so sudden and furious, and so rapid were the awful changes, that unless the most powerful means were instantly applied there were no hopes of the life of the patient, as in the short space of two hours, sometimes half the time, he was a corpse. This too, without any accountable cause, the patient in apparent good health, free from pain, or even "*out of sorts*," being

* "But on a subject so mysterious, who has hitherto done much, who can exclaim with confidence, 'Follow me—this is the right way!' while we are all but too well aware of the sad reality, that nearly one-third the number die that are attacked by the disease."—AINSLIE in 1832.

† "This is no place to enter into the causes of epidemics. These have puzzled the wise ones of all nations, from the period when men first began to reason and differ on such points; and differ they will continue to do."—AINSLIE in 1832.

‡ "I not unfrequently observed it put on a much more alarming aspect, characterised by (in addition to violent vomiting, and purging of whitish-coloured fluid) a great sinking of the nervous energy, excruciating spasms, fixed hollow eye, feeble voice, altered expression of countenance, and occasional *asphyxia*."—AINSLIE in 1832.

suddenly seized with vomiting and purging, so extensive and incessant, and so violent, as to deprive the unhappy sufferer of the power of speech, attended with most violent contortions of the body from pain and spasm, speedily followed by a total prostration of strength, coldness at the extremities, rigid joints, hiccough, and death.

Of what avail could antacids be in such cases as these? Yet they have been strongly enforced for trial "*in every case of Cholera Morbus,*" and should they "*come up,*" *to be repeated, "again and again."*

"Sometimes," observes Mr Ainslie, "it appears without vomiting or purging, nor bile nor spasms appear, with so rapid a sinking of the vital energy, the patients expire in the course of a few hours in spite of every effort to save them." At other times, he observes, "without any apparent cause, as it were at once the vital energies failing, death closed the scene in three hours from the period the unhappy person first began to complain."

Now, in such cases as these, surely Mr Ainslie never meant that antacids should be resorted to? Yet, no other remedies are suggested in these most dangerous of all the modes of attack. But it appears that they should be tried; for this most curious of all reasons, —that "if they do not prove successful, at all events, *they can be attended with no bad consequences!*"

Good heavens protect us! What! thrust down the throat of a dying man, whose moments are numbered, dose after dose of "magnesia," then "ginger," afterwards "calf's bile," *while the stomach rejects them all;* and, subsequently, "galvanize," "blister" him, and make him "inhale oxygen gas;" and be "*attended with no bad consequences!*"

Mr Ainslie, in a letter to the editor of *The Times* of the 2d instant (June, 1831,) says, "Every account of it—and several have been given to the world—ought to convince us of two things. First, that the positive nature and cause of the Spasmodic Cholera, at least, such as it appears in India, are as yet unknown. In the second place, that the use of what are called drugs (the various articles in the *Materia Medica*) has had, up to this period, no very certain or undeviating good effect." *

* "It is but justice to Dr Ainslie to state, that he gives at page 2, in his Letters on Cholera in 1832, a very interesting case of most determined cholera *asphyxia* of a Captain Stone of the Company's service, in 1815, who 'had taken every thing Dr Gordon (of the India army) could think of, *laudanum, ammonia, and camphor;* besides having used warm frictions, and stimulating embrocations,' where the anti-acid was wonderfully successful. Mr Ainslie found Captain Gordon 'speechless, his pulse not to be felt, *his face so changed that he should not have known him,* the vomiting and purging of a whitish fluid very frequent, and his feet, legs, hands, and arms as cold as if he had been dead.' * * Nothing could stay the vomiting; and we expected that nature could not much longer hold out.' In this dreadful state, Dr Ainslie "gave him, though it was with the utmost difficulty that he could swallow it, a full dose of calcined magnesia, in a little tepid water; he kept it down, soon *fell asleep,* and in the morning had no complaint but weakness.

"Here was a dreadful case indeed: *miraculously cured with one of the most*

As though it were for the purpose of illustrating the correctness of the opinion, Mr Ainslie quotes from Mr Scott's "Report on Cholera Morbus," that it "is a very dangerous disease, and so many circumstances occur in aggravation of its fatality, that we can scarcely hope that any mode of treatment can be devised that will strip it of its most formidable character," the melancholy tidings have just been received of the frightful ravages the disease has been committing on board the Honourable East India Company's ship, the Berwickshire, at Bombay. No doubt but that Mr Ainslie's pamphlet, as well as every other authority that could hold out any hopes of affording information, had been consulted.

The Berwickshire left England in February, 1830, having a complement of 140 men. Upon her arrival at Bombay, the Cholera Morbus made its appearance. So violent and rapid was its progress, that in the short space of fifty-one hours twenty-seven of the crew had died of it. The official returns transmitted of this melancholy transaction are as follows:—

June the 11th died.....	17
12th died.....	10
13th died.....	1
14th died.....	4
15th died.....	1
16th died.....	2
17th died.....	1
18th died.....	2

Making a total of thirty-eight deaths in eight days, out of 140 persons!

Such is the frightful progress the disease is making in spite of all the experiments that have been tried or recommended.

Since the above was written, I have seen Mr Baird, the surgeon of the Berwickshire East Indiaman, returned from India, who has, with great kindness, had the goodness to detail the transactions which happened on board.

There were some hundred vessels lying in the harbour at the time, and none were attacked but the Berwickshire; and that was immediate on her arrival. The Cholera Morbus was at the time raging violently on shore. The chlorid of lime was used, but did not prevent it.

When the disease broke out, the men were in excellent health up to the moment of attack,—and none of them had been complaining as Mr Ainslie describes. The attack was instantaneous vomiting and purging, followed with spasms and cramp. A few hours carried the victims off. Antacids were tried, but they proved totally abortive. The opium and brandy, and calomel in large doses, were the only things which had any avail. Bleeding was had recourse to with simple and commonest medicines in the world. No wonder, then, that Dr Ainslie 'from that day hesitated not in every case of cholera he had occasion to treat, whether in India, or afterwards, in England, to administer, in the first instance, an anti-acid;' and it is gratifying to find that, in the perseverance of this practice, Mr Ainslie 'can safely say that he did so with continued advantage.'

great success. The warm bath, it appeared to Mr Baird, had no good effect; on the contrary, although it gave relief at the moment, the spasms subsequently returned with more violence, and carried the patient off. Mr Baird experienced most success from the application of bottles of hot water. The oil of turpentine had been applied externally, but had failed. The oil of peppermint was not tried; it was too expensive, and there was not sufficient quantities on board.

There were upwards of ninety cases. As an Anti-Cholera, the men drank freely of brandy, and those who did so and subsequently had it, had it but mildly.

I shall now detail a few cases of my own, with the practice.

In July, 1818, I had been passing a few weeks at Calcutta with my friend Doctor Adam Napier, of the Honourable East India Company's Service, who had charge of the medical department of the Military Orphan Schools. Mr, Mrs Napier, and myself, had dined at five o'clock, all of us in good health, we had enjoyed our repast, and afterwards taken a few glasses of wine. As the sun was setting, Mrs Napier proposed that we should take a walk on the top of the house. We had scarcely walked there a quarter of an hour when Mr Napier complained of feeling sick. He desired one of the servants to bring a little brandy; but before it could be brought he was seized with the Cholera Morbus extremely violent, both vomiting and purging. It was with difficulty he was got down stairs. The brandy was rejected. He had lost all power of speech. I gave him a wine glass of brandy with thirty drops of laudanum, twelve drops of *Eau de luce*, and twelve of the oil of peppermint. This was also rejected. It was repeated, and rejected again. In the mean time he was seized with violent spasms, and contortions of the body, from cramp and pain. A warm bath had been ordered, and while it was preparing, I had him rubbed over the body with the oil of peppermint, and also his limbs. This gave him instant ease; but the vomiting and purging continued. The brandy having been so often rejected, I resorted to calomel, of which I gave him twenty grains. This stopped the vomiting, and the warm bath rendered him perfectly quiescent and easy.*

While these proceedings were going on, Mrs Napier was attacked equally severe. Mr Napier was removed into bed, while Mrs Napier was placed in the bath.† The first dose of brandy was thrown up; part of the second remained down; the third dose had the desired effect. She was removed in half an hour into bed quite free from pain, or any symptoms remaining.

* "The necessity of administering such large doses of this remedy could have been discovered, as the English themselves, who have introduced the practice, have acknowledged, by accident only. Its utility and success are unequivocal. It is the most effectual remedy against the stagnation of the blood, and particularly of its fibrinous part, which, having become thicker and less mobile, easily stops up the blood vessels. * * * All other remedies which have been extolled as specifics against it, such as sulphates, muriates, cajepout oil, and the like, completely disappointed our expectations, and were therefore abandoned."—*Russian Report*.

† "To the employment of the warm or hot-bath it has been objected,

The moment Mr Napier was taken ill medical men were sent for; but it so happened that not one was to be found, they were all absent from home. About ten o'clock Mr Shoolbred, one of the first medical men of Calcutta, called, and found both patients in bed doing well. He expressed his surprise and joy that they were so; and inquired what had been given to them. He was pleased to say, that if all the medical men in Calcutta had been present, nothing better could have been done. They both recovered; but I am sorry to add, about a fortnight afterwards, Mrs Napier was attacked a second time, after having quite recovered, and she died.

One morning in the spring of 1819, I arose in excellent health, and took my usual ride on horseback. On my return home, I partook of a hearty breakfast, and while finishing leisurely my last cup of tea, I suddenly turned sick and faint, and in a minute felt myself violently attacked with Cholera Morbus. I took the brandy, opium, &c., which were rejected. Pains in the stomach became excessively violent. The warm bath was ordered. Took the brandy, &c. a second and a third time; but it was rejected. At this period I had lost my speech; my strength had failed; I was seized with spasm and cramp. The warm bath being ready, my servants plunged me into it; offering me more brandy, which I refused, and indicated to them to give me one of the powder papers, which contained twenty grains of calomel. This stopped the vomiting; the warm bath relieved the cramp, and tranquillized me. After remaining in the bath half an hour I was free from pain, was removed to bed, and fell into a sound sleep, from which I awoke tolerably well, but much exhausted and somewhat light-headed from the effects of the opium. I took some cathartic medicine, and in a few days was as well as ever. About three months afterwards I had a second attack, on which occasion the second glass of brandy and opium produced the desired effect.

I have applied the same remedies in a variety of cases, with my servants, the soldiers of my guard, and the natives living near me, with very great, and I may say, general success.

In some cases I administered the calomel combined with a few grains of opium, or washed down with thirty or forty drops of the tincture. But it always appeared to me that the effects of the calomel were more immediate and decisive in cases where the brandy and opium had just been given and had failed. This I conjectured might possibly proceed from the effects the laudanum and brandy had previously produced upon the stomach. Such were the most usual symp-

that the exertion and fatigue attendant on its use are likely to be more injurious by the exhaustion they would occasion than could be compensated by any benefit arising from the general application of heat that could be obtained; and although warm-baths have been found beneficial in India and on the continent, in this place they have not been resorted to in the treatment of cholera. I know a gentleman who suffered, during the last summer, and was restored from a state of complete asphixia by being kept in a warm-bath of high temperature for an hour and a half. * * I am inclined to believe, that the prejudice against the warm-bath is greater than necessary."—GREEN-HOW.

toms with which the Cholera Morbus appeared in Bengal in the years 1817, 18, 19, and 20. Nevertheless it occasionally assumed other equally dangerous forms.

One morning, the sergeant of my guard reported to me that one of my orderly corporals was unwell, and therefore begged to be excused from duty for the day. About half an hour afterwards the sergeant came a second time, and stated that the man was worse. I inquired what was the matter. He replied, only a purging.* Considering it to be simply diarrhoea, I desired that he should be sent to the hospital. The sergeant returned a third time, stating that the man was unable to move. I went to the guard-room and found him stretched upon his cot, covered with a blanket, unable to speak; his eyes were fixed, his joints rigid, extremities cold, a profusion of cold and clammy sweat upon his brow, no pulse to be felt, and scarcely seeming to breathe; the only signs of life being the pulsation of the heart.† What to do I knew not, for at the time I was not aware that it was Cholera Morbus. However, as no medical man was near, I determined to try, without the loss of a moment, the only means at my disposal. I ordered some cold mutton broth to be warmed, and having added to it some tincture of opium, had it injected.‡ A pint of port wine was boiled with a quantity of cloves and some ginger. To a wine-glass of this wine I added thirty drops of the tincture of opium, and twelve of the oil of peppermint. By means of a spoon it was introduced; but so far was he gone that the first spoonful gurgled in his throat, and I feared it would have choked him. However, contrary to my expectations, it was got down. At this period he was quite cold. By degrees I succeeded in getting the whole of the first wine glass down. As the injections returned, they had been repeated again and again.§ At the expiration of ten minutes I gave him, by the same means,

* "The profuse rice-watery or gruelly dejections, according to Delpech, consist chiefly of the serum of the blood poured out by the mucous exhalants of the intestines; and, in proof of this, the flocculi are fibrinous."—PROFESSOR LIZARS.

† "The evacuations of advanced cholera are not the discharges of alvine matters, or of the ordinary fluids of the bowels. They are largely composed of the serous and saline parts of the blood, and consequently produce a destruction of strength as swift as it is complete."—KIRK.

‡ "The cases were in general unattended with spasms or vomiting. The patient sinks immediately after one or two watery stools. The purging was always stopped in a short time by the anodyne injections."—*Madras Report*.

§ "I know nothing preferable to the calomel and opium, and the warm injections. *Mutton broth*, or gruel, should be thrown into the intestines, and the precautions adopted that have been alluded to."—DR D. B. WHITE.

§ "Copious, warm, and stimulating injections into the intestines have been found valuable auxiliaries. * * I have seen the restoration of animal heat and the reaction of the vascular system commence almost immediately after, * * in a patient whose condition appeared hopeless, so complete were the general coldness and asphyxia, * * It acts as an internal fomentation, or warm-bath, to the several organs with which, in consequence of the course of the large intestines, it is placed in contact. Should it be discharged, the injection must be repeated any number of times till its full effect is produced."—GREENHOW.

a second glass of wine with opium and peppermint. It went down much easier than the first. Shortly afterwards his eyes began to move, the pulsation of the heart increased, and warmth appeared to return about the chest and body; shortly afterwards he moved his lips. At the expiration of another ten minutes I gave him a third glass; shortly afterwards I had the inexpressible satisfaction to find warmth returning to his limbs, (which had been all the time rubbed by four men,) his pulse beat, and his speech returned. At longer intervals, half an hour, I continued the port wine without opium or peppermint, until I had the gratification, in the space of four hours, to see him totally recovered.*

This case, I presume, is nearly similar to those described by Mr Ainslie, at p. 56 of his work, as "so powerful, so directly destructive to human life, is the great remote cause, and so rapid the sinking of the vital energy, that neither vomiting, nor purging, nor bile, nor spasms appear; but the patients expire in the course of a few hours, in spite of every effort to save them."

If in such cases as these Mr Ainslie would resort to antacids, it is evident they would be worse than useless. What remedies should be resorted to, however, he does not intimate.

Under such circumstances, in the absence of all advice from medical men, will it be too much if I assume, that the remedies I have tried with such singular success, might in such cases be resorted to as a possible means of saving the lives of the unhappy sufferers, when we are assured in such cases, by medical men, that their patients "have died in a few hours, in spite of every effort made to save them."

The foregoing remarks, and statement of facts, are submitted, with great deference and submission, to consideration, with a lively hope that they may in some measure prove useful. I never can forget my own sufferings while labouring under the complaint, or the inexpressible joy I experienced at the relief I obtained myself, and witnessed others doing, from the remedies named.

I earnestly recommend the warm bath in all cases, the moment

* "Though more desirous of ascertaining the true value of remedies than of appropriating to myself the merit of their introduction, I may yet with propriety be permitted to notice on cures in the last number of the *Lancet*, in speaking of this powerful means of inducing reaction: 'We allude to the employment of copious injections of diluent fluids into the rectum, a measure first practised by Dr Gibson, in one of the cholera hospitals in Newcastle, and since repeated with the most encouraging results.'—The patient in whose case the large hot injection was first employed, was Thomas Taylor.—(See case IV.) Dr Gibson afterwards saw this man with me, and I am sure would be the last to make a claim to which he was not entitled."

CASE IV.—Dec. 31, 1831, 3 P.M.—Blue, cold, pulseless; roused with difficulty to speak, and then in a whisper scarcely audible; very restless; countenance greatly shrunk, and eyes sunk deep in the socket. A large injection, consisting of three pints of a strong solution of soap in warm water was thrown into the bowels with great force by the stomach-pump; in an hour the pulse had become perceptible; heat was restored to the surface; every unfavourable appearance had diminished, and reaction become fairly established."

—GREENHOW.

spasm or cramp appears. In the absence of the warm bath, or while it is preparing, the oil of pepperment should be used externally as well as internally. When this is not to be had, fomentations with *very hot water* and flannel will be attended with good effect. Blisters are far too slow in their operation, and I consider them useless.* Some medical men have recommended the application of oil of turpentine, and the camphor liniment. I have tried them both repeatedly, but they have failed.

After the disease has been got under, some purgatives must be given to carry off the offending matter remaining in the stomach, as well as the medicines administered during the paroxysm.

I cannot take my leave of the subject of Cholera Morbus, without expressing my surprise that neither Mr Ainslie, or indeed any other medical man, has said one word as to *any measure which might be resorted to as a probable means of prevention.*

The Times newspaper, a short time since, very properly observed, "A skilful physician first sets to work to cure the disease, and afterwards to discover means to prevent it."

Now, although it may be impossible to discover remedies which will be a perfect antidote to Cholera, nevertheless it must be highly desirable, that every precaution should be taken which can render the attack, if not abortive, as mild as possible.

Mr Ainslie observes, at p. 39, "We all know that, for ages past, bile has been supposed to be the positive existing cause of Cholera Morbus; and most of our modern writers, Foreign as well as British, still consider it to be so." If this be a fact, we have clearly ground to work upon.†

The state of the bile, no doubt, has a great and preponderating influence in most cases of illness, but it appears more particularly prominent in cases of Cholera Morbus; and it is observed by Mr Ainslie, that, "On examining the bodies of those who had died of Cholera Morbus, the abdomen, when opened, emitted a singularly unnatural and offensive odour, and the gall-bladder has been found to contain bile of no unusual consistency."‡

* "Blisters, during extreme collapse, are quite inert, and the *emplastrum lyttae* is too slow in its operation."—G. H. BELL.

† *Premonitory Symptoms.*—"I order my patients when they retire to bed, to take a pill composed of calomel prep. gr. vi. opii cruda gr. i.; to be followed in the morning by a dose of castor oil, with a few drops of laudanum; or, what is probably better under ordinary circumstances, a powder consisting of pulv. rhei half a drachm, zingib pulv. gr. viii. This simple formula I may have to repeat, but I never knew it fail. I may here observe, that the doses of medicine prescribed are proportioned to adults."—DR D. B. WHITE.

"I have prescribed for upwards of a hundred patients labouring under those symptoms above alluded to, which usher in the disease,—and although within its limit ten cases of cholera have occurred since my superintendence, all of them so preceded, yet in not one of the above hundred instances did this disorder supervene, and in only four individuals was my assistance a second time required."—DR D. B. WHITE.

‡ "In the beginning of the epidemic, when the character of the cholera and its sudden fatality were not known to the lower orders, among whom it

Mr Faithhorn, formerly of the East India Company's Medical Service, observes, "Bile is formed by nature as the grand saponaceous compound to mix with the refuse of the aliment, and by this mixture to give the proper stimulus to the intestines for its discharge. A deficiency, or an excess of bile, therefore, will be equally injurious, and produce morbid effects."* And "an irregular or diseased biliary secretion, is certainly the grand source of stomach complaints; the secretions of this organ are materially affected by the state of the liver,† and its sympathy with this latter organ produces, of course, a disorder of the functions of the stomach, and a vitiated quality of its natural fluid; hence, we often find a predominant acid the effect of disease, a leading symptom in the disorders of the stomach, and the organ is kept, as it were, in a constant state of fermentation; digestion accordingly becomes feeble and imperfect, the matters are poured into the bowels, not in their proper assimilated state, the bowels themselves want their proper supply of healthy bile, and there is no mediating power, or neutralizing agent, such as the bile imparts to correct the irritation from this cause; hence arise indigestion, eructation, flatulence, and all the other morbid symptoms."

The functions of the liver, and its peculiar secretion, *the bile*, have a most important influence in any climate, in the production and aggravation of disease; an expanded train of experience has pointed out this hydra, which oftener than other morbid cause, proves fatal to mankind.

"Indeed the more we contemplate the structure of this organ, its magnitude compared with others, its peculiar circulation, and the vast quantity of blood which passes through it, the more we must be satisfied, it is intended for a leading operation in the functions of life; any considerable interruption or irregularity of which must be attended with the most serious and fatal consequences; my intention then," says Mr Faithhorn, "founded on these grounds, is to point out the absolute and indispensable necessity there is for a more minute and close investigation of the changes to which the liver is liable, and the variations to which *the biliary secretion* is exposed from different causes; at one time becoming completely locked up, and at another having its secretions poured out in the most depraved, acrid, and vitiated condition."

first appeared, it was seldom possible to catch it in its first stage by means of its warning symptoms. * * * It was fully ascertained by inquiry among those who survived, or in the families of the first victims of the disease, that they complained more or less of disorder in the digestive organs, upon the actual invasion of the cholera."—*Russian Report*.

* "It is evident, from the limited number of persons whom it attacks, when compared with the entire population, as well as from the apparently irregular and capricious manner in which they are selected, as regards age, sex, and neighbourhood of residence, that certain conditions of the recipient are requisite to enable it to produce its effect."—GREENHOW.

† "The substance of the liver, when cut into, is found gorged with black blood, not coagulated, but thicker than usual. The colour of the bile is generally green; the great veins of the trunk and liver of thick and impure blood, as are the right auricle and ventricle of the heart. The lungs are black, and

Dr Johnson, of the Royal Navy, a very able and intelligent writer, in his Essay on the Influence of Tropical Climates on European Constitutions, speaking of Cholera Morbus, (p. 408,) observes, "The deluges of bile which occasionally burst forth on the recommencement of secretion in Cholera, are the natural consequences of the great plethora in the portal and other abdominal circles of vessels, which took place during the previous check to biliary secretion, and free passage of blood through the liver."*

These facts plainly indicate, that although it may be difficult, nay impossible, to discover remedies that will prove a perfect antidote to Cholera Morbus, the remote cause of which is "some great unknown principle in the atmosphere," as bile is declared to be "*the positive existing cause*" of it, we have clearly the means placed by Providence at our disposal, which will, at least, tend to alleviate it, if not altogether prevent attack.†

At one time it was a matter of doubt and dispute with medical men, whether a redundancy or an absence of bile was the immediate cause of inveterate Cholera. It, however, now seems to be a matter beyond all question, that the absence of bile is the cause.

Dr Johnson observes, (page 408,) "An *increased secretion of bile*, so far from being the *cause* of Cholera Morbus, is, upon the whole, a *favourable symptom*; and in the very worst cases of the disease, it is *entirely absent*." He says, "The connexion or sympathy between the function of the skin and liver, will afford a more rational explanation of the phenomenon:"—"The sudden and powerful check to perspiration—the unparalleled atony of the extreme vessels, debilitated by previous excess of action, and now struck utterly torpid, by the cold, raw, damp, nocturnal land-winds, loaded with vegetable vapour, and abounding with terrestrial and jungly exhalations—break at once, and with violence, the balance of the circulation. The extreme vessels of the hepatic system, sympathizing with those on the surface, completely arrest the reflux of blood from the portal, cæalic, and mesenteric circles; hence, in the worst cases, a *total suppression* of biliary secretion, with distension of the abdomen, and

in appearance almost of a fleshy structure, and, when cut into, freely give out the same gremous black blood."

"The animal heat sinks; the action of the heart is lowered; arterial secretion has ceased; and, after death, every vein is found congealed, while the arteries are empty. We have a patient suffering under extreme prostration of strength, and the pulse is scarcely perceptible, perhaps it is not to be felt; we remove blood, and as it flows, the pulse rises, the powers of life return, and if we can sufficiently relieve the oppressed system, nothing more is necessary to save the man's life."—G. H. BELL.

* "A superabundance of thick black blood occurred in the veins of the stomach and liver. * * * No bile is visible in the small intestines or stomach. The veins of the liver, and sometimes those of the bowels, are gorged with blood. The gall-bladder is full of dark bile."—*Russian Report at Orenburgh.*

† Calomel.—"It is the most effectual remedy against the stagnation of the blood, and particularly its fibrinous part, which, having become thicker and less mobile, easily stops up the bloodvessels."—*Russian Report.*

shrinking of all external parts.* If this continue any time, death must be the inevitable consequence, notwithstanding the unavailing efforts which nature makes, by vomiting, to determine to the surface, restore the equilibrium of the blood, and, with it, the functions of perspiration, and *biliary secretion*. In proportion, then, as the two latter appear, will the danger be lessened, our most salutary objects attained, and the disease become "*less untractable and fatal*."

Indeed, Mr Ainslie is of opinion, that the peculiar inactivity of the proper absorbents of the stomach, "produces a predisposition to fall into that morbid action which constitutes the Cholera Morbus, and admits of the more influential operation of the perverted distribution of the galvanic fluid in the atmosphere."†

If persons enjoying good health, and living in fine climates, derive benefit from an occasional recourse to medicine, how much more useful, nay absolutely necessary, must it be for the preservation of health in climates where such a disease as Cholera Morbus is generated in the very air we breathe.

Dr Johnson, page 532, after recommending opening medicines "during exposure to an atmosphere strongly impregnated with dangerous miasmata," observes, "small doses of mercury would probably be more efficacious in resisting their effects."‡—In this opinion I most heartily concur, from experience on my own person of its efficacy.

In the absence of any regular system recommended by medical men, for the obtainment of so desirable an object as that of guarding the constitution against susceptibility of attack, and removing those pre-existing causes which are declared to be the positive cause of inveterate Cholera Morbus; will it be deemed presumptuous in me if I venture to recommend for trial, at least, a course of medicine I have repeatedly adopted with the most singular success, in removing one of the most determined and inveterate pre-existing causes, indigestion, and suppressed biliary secretion.§

* "The blood was repelled inwards from the surface, especially towards the abdominal cavity. By the excessive secretion of watery fluid from the organs there situated, which is peculiarly the effect of this disease, the blood loses its facility of moving, and owing to the superabundance of fibrin, comparatively with its other principles, falls into a state of stagnation. This was sufficiently proved, both by the extraordinary accumulation of *black, thick, almost coagulated blood*, which was found after death in the internal vessels, and likewise by the quantity of blood drawn from the veins during life, which was thick, black, and obstructed by scarcely any oxygen from the air."—*Russian Report*.

† It is an acknowledged fact among physiologists, that black blood impairs the action of the heart. The blood thus vitiated is circulated in the brain, spinal chord, and ganglionic system of nerves, and will impair their functions, and react particularly on the circulating and respiratory organs."—PROFESSOR LIZARS.

‡ "Every symptom of the disease is referable to the secreting functions of the abdominal viscera, and to irritation, consequent on depraved secretions being thrown into the intestinal canal."—G. H. BELL.

§ "Much attention should be paid to the digestive organs when cholera is prevalent."—G. H. BELL.

§ "The principal seat of the disease is the organs of digestion."—*Russian Report*.

In the first place, I would give from three, four, to five and six grains of calomel, according to age and constitution, to be worked off in the morning with three or four tea-spoonfuls of tincture of rhubarb; or the same proportions of calomel composed into pills with the ext. of colocynth, will perhaps for general purposes be more convenient and equally useful. The following night let the person take half a grain calomel pill, and continue it night and morning for the space of a fortnight; taking a tea-spoonful or two of tincture of rhubarb, just enough to keep the body gently open, but carefully to avoid anything like purging; for in that case the calomel would be carried off, and the beneficial effects defeated.†

The gradual introduction of small quantities of mercury into the system purifies the bile, increases its action, removes obstructions, operates generally upon the fluids, and places the body in the most healthy state possible.‡

This simple remedy has been tried by many friends of mine with the happiest success in the worst possible cases of indigestion, and long and obdurate liver complaints, the effect of suppressed biliary secretions, when every other method of administering the mercury had failed.

The following letter, addressed to me by a most highly respectable gentleman, one of the firm of * * * Poultry, whose name is for obvious reasons withheld, but the letter deposited with the publisher, will show the action of calomel upon the bile. If Cholera Morbus had attacked this gentleman before he resorted to my prescriptions, all the medicine in the world could not have saved him:—

“DEAR SIR,

“25th MAY, 1831.

“In compliance with your request, I have much pleasure in committing to paper the symptoms with which I was affected at the period you prescribed for me.

“I was afflicted for nearly a fortnight with a total loss of appetite, most violent headaches, attended with sickness at the stomach, and rejecting of all food; sleep afforded me no relief; on the contrary, I arose worse than before,

“Indigestion is a prevailing complaint with every one wherever cholera is common; and the greater the degree of the disordered state of the stomach exists, the more likely is the person to be affected by the epidemic, and the less likely to recover.”—G. H. BELL.

“The first discharges from the stomach often consist of the unaltered ingesta of the last twenty-four hours, showing the failure of digestive action during that period.”—GREENHOW.

† “I am not sure that in general calomel is prescribed upon any principle, but rather empirically, and without any definite conclusions. I entertain no doubts of its use. * * * Perhaps, in our present knowledge of the nature of the disease, we must speak with caution in endeavouring to explain the rationale of its beneficial action.”—KIRK.

‡ “I feel assured, that if before, and during the prevalence of this calamity, the absolute necessity of * * the importance of attending to the state of the bowels, were fully impressed upon the minds of the lower classes, many and many a wretch might be saved from death, perhaps the most horrible that humanity has witnessed.”—Dr D. B. WHITE.

with pains and aching in all my limbs, and nearly the loss of all strength, perfectly incapable of attending to my business.

"I had tried a variety of medicines, some of them of a most violent description, but could obtain no relief.

"Such was the state of my health when I followed your advice, in taking the first dose of calomel, and then in half grains night and morning—with attention to its effects, I shortly found great benefit from it, and in three weeks I lost the headaches, my appetite returned, my sleep was sound and refreshing, and I feel my whole frame invigorated and restored to perfect health, and remain, with gratitude and respect, yours," &c. &c. &c.

It must be obvious, that to have the bile in the most pure and active state, is one of the grand secrets for the preservation of health. Too much attention, therefore, cannot be paid to it under all and every circumstance in life, in cold, as well as warm climates, in time of health, as well as sickness.

I shall conclude these observations with a quotation from Dr Johnson on the method of cure, recommended twenty-seven years ago, as they are highly important in more respects than one. It proves how little the practice of medical men of late years have added to the stock of information previously possessed. It exhibits a more scientific, rational, and satisfactory reason for his practice than I can discover in the writings of any other author I have seen; and, moreover, answers in a most undeniable manner the objections which have been started by many medical gentlemen, Sir Anthony Carlisle, Mr Ainslie, and others, to the use of calomel.*

"The warm bath—cordials of the most stimulating kind, such as warm punch, or toddy, must be added to opium and calomel, together with friction, hot flannels, &c. &c. In short, every means must be tried to determine to the surface, restore to the equilibrium of the circulation, and with it natural perspiration, (not the cold clammy fluid forced out by pain and spasm, but a mild warm sweat,) and biliary secretion. Calomel must never be omitted, because it answers a triple purpose; it allays the inordinate gastric irritability—it excites the action of the liver—and it corrects the constipating effects of the opium; so that, when the orgasm is over, some gentle laxative medicine, may, with it, carry off the diseased secretions, which must sooner or later take place if reaction can be brought on, or recovery effected. When all medicines by the mouth have been ineffectual in allaying the orgasm of the stomach and bowels, laudanum, by way of injection, has succeeded, and should be had recourse to, though it is generally neglected."

* "We have to thank God for many blessings in this our favoured land; and, as it was given to us from on high to set to flight one dreadful epidemic, who knows but some second Jenner, in these our days, may find a balm for a still more appalling visitation."—AINSLIE in 1832.

ADDENDA.

A PERUSAL of the foregoing pages will have convinced the calm and reflecting public how much their safety against that terrible scourge of mankind—the Cholera Morbus—depends upon their own vigilance and precaution: moreover, how thankful the nation ought to be to Divine Providence for the mercy he has bestowed upon us, by granting those peculiar premonitory symptoms which contra-distinguishes it from the disease in India, which generally carries the unhappy sufferer off in a few hours,—the first symptom too often being the horrid stage of collapse.

The concurrent testimony of the medical profession is, that the disease in England is always preceded for a day or two with diarrhœa, or bowel complaint, which, by early attention, is easily cured, and even if Cholera supervenes, it is practicable and easily managed.*

After a knowledge of these facts, what excuse is there if the disease should anywhere present itself in a formidable way? Every medical man in the kingdom should warn his patients to pay particular attention to bowel complaints; and the poor should be instructed, upon all occasions, instantly to repair to a dispensary, or to the nearest medical man, to explain their case, and obtain calomel and aloetic pills. The expense to each parish would be trifling, were they to authorise each surgeon and apothecary to give them gratis to such as might apply. The cost to the practitioner would be a mere trifle; and in cases where the lives of the community are in such danger, there is no doubt but the whole of the profession would gladly dispense the medicines at prime cost. By these means the lives of thousands may yet be saved.†

After an elapse of three years and a-half, notwithstanding all the melancholy experience the medical profession have had, we are nearly in the same state in point of knowledge as to the remote cause

* "One point there is in which, unfortunately, all must agree in reference to the pestilence which now unglutted preys. How often have we had to say, '*our best exertions have been used against it in vain*?'"—AINSLIE in 1832.

† "Watch over your people, adopt the simple expedients of subdivision and watchfulness; and we have the surest expectation of an almost total exemption from this direst of scourges."—KIRK.

"I feel confident that the evils of this disease have been tenfold increased by the dread of contagion; and this remark suggests to me the painful necessity of fearlessly delivering my sentiments on a much agitated question, in regard to which, I must say, the public mind appears to have been egregiously abused."—PROFESSOR LIZARS.

of the disease, the means of prevention, and method of cure. Calomel, as a means of cure or prevention is nothing new; and as for the warm enemas (now so much extolled) of broth and laudanum, and to which Dr Greenhow takes so much credit for *priority* of using, they are as old as the disease. It will have been seen (p. 19) that I used them seventeen years ago. By a recent perusal of the Indian reports, I find they were also tried by various medical men. The Russian physicians also used them long before the disease reached England.

Within the last month a paragraph has been going the round of all the papers in the kingdom, stating that Dr Ayre of Hull had discovered, the great "*advantages of calomel in Cholera*," by small and frequent doses; and therefore had requested the corporation to organize a committee of six persons, to whom he might prove it by practice.

It is impossible to know whether Dr Ayre ever read the Cholera Gazette, but if not, and he will turn to page 100 of No. 3, he will find a very strong case indeed, where *small doses of calomel* were given "*every hour*" in a case of extreme collapse, by Mr Primrose, surgeon of the Royal Navy, on the quarantine duty at Standgate Creek, so far back as the 5th of January 1832, with complete success, and by that gentleman recommended for general use.

The only new discovery that has been made, that I can trace, as to the immediate cause of the disease, has been by the pathological investigations of the eminent Professor Delpech of Montpellier, and his able coadjutors, Dr Lowenhayn of Moscow, Dr Coste of Montpellier, and Professor Lizars. While those eminent physicians were at Edinburgh studying the disease, by their able and scientific anatomical researches, they have clearly established the fact, that the "central part of the ganglionic nerve is the seat of the essential morbid affections of Cholera." The enlightened and liberal foreigners, however, disclaim the priority of discovery. They at once admit that their attention was forced to it by the opinion of the celebrated Loder of Moscow;—but by a singular coincidence, the same opinion had also been entertained by Professor Lizars. Delpech, in his letter to Professor Lizars, very justly says, "The results of our labours may perhaps contribute to throw some light upon a practical question, the solution of which is of the greatest importance to all Europe." I am clearly of the same opinion; and therefore I notice it with a hope of attracting the attention of the medical profession to it.

After ably describing several curious anatomical appearances, Delpech observes, 'Physiologists have long placed the liver at the head of the organs by which the blood is purified; as the solar plexus, common to the two ganglia, and which participates in their morbid affection, supplies the liver with the nerves by which it is animated, it cannot appear strange that the functions of this organ should languish or close. Whether the obstruction of the principles of the bile contained in the blood, by the action of the liver, is the principle influence of that viscus, with reference to the purification of the blood,

or whether it contribute to this purpose in any other manner, it is not the less remarkable that the venous blood passes through the region of the liver, without there undergoing any change, that the secretion of the bile ceases; and that, most commonly, the liver is found destitute of the full injection which constitutes its natural state."

What man is there who doubts for a moment, that a scene of the greatest misery, distress, and affliction, which this country has witnessed for ages, was produced by the temerity, fear, and incompetency of the Central Board of Health?*

A Board of Health, constituted by the authority of his Majesty, under such extraordinary circumstances, let their talent have been what it might, ought at least to have possessed the qualities of firmness, consistency, personal industry, and forbearance. But of these qualifications they were notoriously deficient—forming a strange and irreconcilable contrast with the Medical Boards at Moscow. Ignorant themselves, with the exception of one individual, Russell, even of the nature of the disease, or the method of cure, a panic seized them. Why the Board was so constituted, when there were so many scores of medical men at hand, who had seen, and had great experience in the disease, remains to be *explained*. The measures of the Board created terror and alarm from one end of the kingdom to the other, even amongst their own profession; and scenes of unparalleled affliction, distress, and atrocity followed, disgraceful to a Christian country.

The first proclamation of the Board at once proclaimed their incompetency, weakness, and folly. The disease was declared by them to be contagious. To-day they issue a proclamation allowing of goods to be landed, but the passengers are to undergo quarantine. To-morrow they issued another, allowing of the passengers to land, but not the goods! To amuse the public, they send Drs Barry and Russell to Riga, to do that which had already been done by far more experienced and scientific men, viz. to identify the disease with that of India. Dr Walker had already done this at the great risk of his life, in travelling from St Petersburg to Moscow, at the expense of his Majesty's Government, and had made his report, so also had Dr Hammet sent his reports from Dantzic. Totally at a loss to know what to do themselves, as a means of prevention, they reject, without inquiry as to their efficacy, or listening to the reasons why they were recommended, the only means that

* "Had the public, instead of being terrified with the bugbear contagion, been warned by the same authorities of this undisputed fact, that Cholera is epidemic—that it has been cast upon us by Providence, which human power cannot avert—and that no man could tell who would be afflicted or who would escape, the same precautions as to health, temperance, cleanliness, and attention to the wants and comforts of the poor, would have been observed; * * the kindly intercourse and best affections would have been preserved; hundreds of miserable creatures, the hapless victims of antiquated prejudices, might have been preserved, or their last moments solaced, by those endearing attentions which render death itself less terrible; commerce would have been unimpeded, and the ruin of thousands averted."—PROFESSOR LIZARS.

have ever been discovered, and now universally recognised as such. They treat with indifference and contempt all the opinions of the most enlightened practitioners; and pin their faith to the sleeve of Drs Barry and Russell's report from Russia.*

The readers of the *Morning Advertiser* will remember that I pronounced the whole affair to be a perfect job, and one of the worst species, as it would expose the lives of the whole of the population of these kingdoms; and that the sending of Drs Barry and Russell to Riga was palpably absurd, as they could not return better informed than when they went.

In all this I was quite right. They had not been forty-eight hours at St Petersburg, when they wrote, on the 1st of July 1831, "*The important object of our mission seems to be already accomplished.*" There had then been but two cases of Cholera; and they say, "*We saw the survivor of these two cases.*" This one case, it appears, "had afforded to his colleague, Dr Russell, *ample means of satisfying himself as to the identity of the disease*;" who, with most astonishing powers of discrimination, instantly exclaimed, "*This is the GENUINE disease!*" This puts one in mind of two donkeys licking each other's back; and very like the puffs about "*The Genuine Bears' Grease!*" To finish their jaunt, at the public expense, they thought "a short account of the symptoms they had witnessed might be useful." They therefore wrote them for the following most singular of all reasons, "There were many descriptions of the malady *much more ably and accurately drawn up than they could pretend to give!*"

I must admit that Sir Henry Halford and the Board were very polite; but they had an insuperable objection to my suggestions, because I was not a medical man. By the way of confounding, and convicting me of gross ignorance, presumption, and folly, and, at the sametime, to display his own profound discernment, Sir Henry Halford astonished me by asking, "*Did you ever know an instance where taking calomel had prevented a person having the disease?*" Here was wisdom with a vengeance! But, surveying Sir Henry Halford with surprise at so *silly a question*, I replied, "I certainly *had not*; but there were facts connected with taking mercury, which I could explain, that would afford the strongest presumption that it had." I was informed "the Board's time were otherwise, and more importantly taken up, than to listen;" and I was very politely bowed out of the hall with many thanks by the Board for my kindness and attention: but as I was "*not a medical man they could not listen to me.*"† Lord Grey heard of those facts with stoical indifference; they were therefore communicated to the public at the time through the columns of the *Morning Advertiser*.

* "The result of their mission (Barry and Russell) has been generally unsatisfactory to the profession to which those gentlemen belong, and to the public."—BELL.

† "What does not seem to have emanated from these chieftains must, if the whole race of men should perish, be circumspectly suppressed, or strenuously opposed."—DR SANDERS.

By a strange inconsistency, though they decline my services because I was *not a medical man*, they employ a number of *military men* who knew nothing of the disease, as members of Medical Boards, and superintendants of quarantine, who cry up—Contagion! contagion!—Fire! fire!

It was evident what the public had to expect from the wisdom of "*the sages of the Board of Health*," when the president could ask of me a question as to fact which could alone be known to the Almighty Creator. Admitting that a man had swallowed the whole of an apothecary's shop, how was it possible for him to know whether he was or was not to have the disease? The conclusion at best could be but hypothetical; but the reasons for thinking so might have been strong, and sufficient to have warranted the presumption. Sir Henry ought to have been well aware of the sympathy between the functions of the skin and liver, the liver and the bile, and the necessity of purifying the blood, as the most trifling cause may derange the whole system in a minute. Besides, the opinions of medical men as to the immediate cause of the disease, and the utility of calomel to purify the bile and increase the circulation of the blood, I should have informed Sir Henry Halford, that in an hospital of 170 European patients, into which hundreds of Cholera patients were carried, and died fast, intermixed with the others, not one individual took the disease; and that most of the patients in the hospital were under the influence of mercury.

By these means they would have learnt in May, 1831, what they were anxious to be informed of in January, 1832. In their Circular of Queries to Medical Practitioners, of that date, they say, "*Note whether any persons under mercurial salivation have been attacked by Cholera.*" But the Board of Health were not content with themselves rejecting *calomel and aloes* as a means of prevention; but they thought it incumbent upon them to put the public on their guard against it, and therefore, on the 14th of November, 1831, they declared, that "*the drugs hitherto offered with this pretension* * * not only did not possess the negative virtue of doing no harm, but were found to be *absolutely injurious*." This opinion they most consistently maintain in the *Cholera Gazette*, by introducing, for the attention of the public, Sir William Beatty's "*preventive medicine*," viz. "One ounce of Peruvian bark, with half a drachm of capsicum (Cayenne pepper), a drachm or small tea spoonful to be taken twice a day."

It is impossible to contemplate, without feelings of the utmost disgust, such audacious empiricism, or without horror, the dreadful consequences which followed the want of knowledge and discretion on the part of the Central Board of Health.

The disease was declared to be highly contagious.* A strict qua-

* "On the evening of the day when Cholera first manifested itself in Musselburgh, in the case of Wilkie's wife, the daughter-in-law of that woman carried out the blood which had been abstracted from her arm by Mr Sibbald, and threw it into the mill-dam, which runs nearly under the windows of the

quarantine was ordered. But the Board of Health seemed to be perfectly aware that even those ruinous and destructive measures could not impede or prevent the visitation of the Divine will and pleasure, or the wrath of God. They saw the necessity of a premonitory intimation for what they were aware the public must encounter. They knew full well that the quarantine laws in Russia—even when most rigorous and efficient—had failed. They also knew that the disease made as rapid strides where there were quarantine laws as it did in India where there were none.* They, therefore, with all the forecasts and cunning imaginable, declare, that although they could “effectually prevent its introduction through the regular channel,” they could not by “the secret and surreptitious intercourse between the coast of England and the opposite shores.”†

Genius knows no difficulties that cannot be surmounted; sophistry

houses on the opposite side of street. Mrs Shivers, (*a singularly appropriate name*), the wife of a hatter, chanced to be *leaning out of these at the time*, and the vessel was emptied into the water within a few yards of her. She was shortly afterwards seized with sickness and shivering, and on the day following was attacked with the disease.”—DR MOIR.

* “Let us look to the experience of a country where sixty millions of human beings have been swept into eternity by this pestilence. After a most careful examination of a great body of Indian experience, in the manuscripts of various friends, the inferences that may be drawn from its history there, may be stated as follows:—

“1st, That medical men, hospital attendants, &c., were not more liable to take the disease than the rest of the community—in many instances less so.

“2d, That it was not communicated by clothing and beds of the sick to healthy subjects, or even to those labouring under disease.

“3d, Regiments marching from one station to another get it all of a sudden, on reaching a certain spot, and the disease as suddenly disappears in a day or two, after changing their ground.

“4th, It appears suddenly in a place, continues a week or two, and as suddenly disappears.

“5th, Particular parts of a station or camp are attacked in preference to others, when the communication is unrestricted.

“6th, Banks of rivers and water courses are more obnoxious than high or dry situations.

“7th, On a change of weather the disease is sometimes arrested.

“8th, The disease passes by intermediate towns and villages, and seizes upon more distant ones—inexplicable on the principle of contagion.

“9th, Seclusion and non-intercourse does not always afford security against the disease.

“10th, A ship from England (see page 16,) took the disease immediately she came to anchor in Bombay harbour, before there was any communication with the shore. She had passed up along the Malabar coast, about seven or ten miles distant from the shore. This sets the question at rest for ever, as showing the power of atmospheric air in producing the disease.”—KIRK.

† “Neither the proximity of cholera patients, nor their contact; neither the sweat, nor the blood, nor the vomited matter, nor the purchase of an article which could have imbibed the cholera infection, is injurious to others, unless they have a distinct predisposition to the disease. This predisposition depends as much (if not even more) on the particular condition of the whole body, as on the disturbance or excitement of the digestive organs. There have been examples of people who were seized in places where the cholera was prevailing, without having had the slightest communication with the houses or individuals just attacked by it.”—*Russian Report*.

and mistification will remove mountains; make a man to see something where there is nothing; and turn black into white.

Instead of employing their minds with anxious solicitude as to the various causes which might derange the functions of the body, and the prominent predisposing causes of the disease; and suggesting the most rational and probable means of fortifying the constitution against the susceptibility of attack, they were engaged in deciding that "decayed articles, such as rags, cordage, papers, old clothes and hangings, should be burnt;" thinking with Benedictus, who says, that the yellow fever or plague lay in an incubated state in *an old rag for seventeen years*. Instead of devising means for the preservation of the human body, their time was taken up with thinking of the danger of the common sewers, and of "cleansing the house from the cellar to the garret." They were anxious that all the drains and impure ditches were emptied; but they forgot to say one word of the necessity of purifying the human body, and disencumbering it of the coroding and destructive excrements and the germs of the disease. In short, they set to work more like scavengers than scientific medical men.

It would have been well for mankind had their folly ended here. Terrified and frightened to death themselves, while they were preaching up "*common prudence*," they became indiscreet beyond measure. They railed against unnecessary alarms; but declared that the less intercourse man had with man the better. "*Avoiding all unnecessary communication with the public out of doors*," was one of their "*preventive measures*;" and "all articles of food, or other necessities for the family," were to "be placed in front of the house, and received by one of the inhabitants after the person delivering them shall have withdrawn." People infected were to be removed to the Cholera Hospital whether they liked it or not; and, for the sake of humanity, they decided that "*the fewer the number of persons employed to attend them the better!*" Those who refused to go to the Cholera Hospital were to have "a conspicuous mark ('*sick!*') placed in front of their house, to warn persons that it was in *quarantine*; and when persons with the disease had been removed, and the house purified, the word ('*caution!*') was to be substituted; and the inhabitants of such house were not to be at liberty to move out to communicate with other persons until the mark should have been removed." While the public were informed that "the two preventives were a healthy body and cheerful unruffled mind;" by way of producing them, the Board ordered a "a strong *body of police* around infected places, so as to utterly *exclude* the inhabitants from *all intercourse*." To inforce this, and to preserve a "*cheerful mind*," it was intimated that "*it might become necessary to draw troops*" around them, if the disease should *ever show itself in this country* in the terrific way in which it has appeared in various parts of Europe." "Convalescents from the disease, and *those who had any communication with them*," were to "be kept under observation for a period of not less than *twenty days*."

Such were the monstrous emanations from the superlative wisdom of the Central Board of Health.* There never was any thing half so absurd or half so atrocious, except the IRISH COERCION BILL!

The consequences attending these regulations were far more fatal than the spreading of the disease itself; and there is no doubt but that it "*multiplied tenfold the mortality amongst those attacked.*" In many places the unhappy sufferers were in consequence treated worse than dogs. Friends and relations were separated from them at the first moment of attack, or before they were dead they locked the room and left them to the undertaker; or otherwise they were dragged off to the pest-house, from whence few returned. To add to the horrors of the scene they were often buried almost instantly after the breath had ceased, and long before they were cold. It is stoutly maintained in some places, that many were even *buried alive*. Indeed the impression was so current, that some medical gentlemen thought it expedient, in letters to the Central Board of Health, to contradict the report. One observed, "with regard to *the idea of some being interred alive*, I should deem it quite *impossible*, as the wretched sufferer approaches death so steadily and so evidently, that *no mistake of the kind can happen.*" But the same gentleman, however, states as a fact, "*we have had a few singular recoveries* when the body had become bluish and livid, *as cold as ice, and not a pulse felt for one or two days*, except at the shortest intervals."

For all those deplorable events which happened, the Central Board of Health alone are responsible, and the late Prime Minister of his Majesty's Government, for placing the public safety into such hands.

As regards the doctrine of contagion, I expressed myself against it before the disease approached these shores. I have seen nothing to change my opinion; on the contrary, every circumstance tends the more and more to convince me of its folly.† I have great respect for the characters and talent of some of the gentlemen who have advocated contagion; and upon reading some of their works, so ably and skilfully written, I should have adopted their opinions but from my own experience in India, and the overwhelming and most conclusive evidence of so large, so experienced, and so eminent a part of the medical profession in all parts of the world, against it.‡

* "The most determined means for isolating every case should be adopted, not only removing the infected person to an hospital, but also placing the whole family under surveillance."—DR THOMAS BROWN.

† "The anti-contagionists seem to have only one very strange foundation to stand upon, viz. *that every one does not take the disease.*"—DR THOMAS BROWN.

‡ "From my conversation with medical men I may say, that the majority who have not seen the disease, are contagionists; that many who have seen a little of this disease, are moderate contagionists; while most who have seen a great deal of this affection, are *non-contagionists*,—simply, I conceive, because they have explained it in all its bearings,—because they have dived into its most inward recesses, and witnessed relatives humanely and fearlessly attending their friends, mothers suckling their dying infants, and infants suckling their dying parents, with impunity. I have been wounded in the greater

At Musselburgh, between the 19th of January and the 17th of April, 327 died of Cholera. One undertaker buried 167. He was never ill himself or any of his assistants. And although the public authorities would not approach within ten or twenty yards of him, and the people used often to throw at him the key of the door of the house where he would find a Cholera corpse, still in the neighbourhood where he lived—a small close, or lane containing eight houses—but one person had the disease. This is the more remarkable, as the friends of the dead and dying were every day in numbers at his house; and if it was infectious, surely some one of his family, or the neighbours, must, according to the doctrine of contagionists, have taken it,

number of my dissections of cholera patients, and once severely with a chisel, the wound of which I treated with neglect, and inflammation of the lymphatics of my arm followed, but no cholera symptoms.”—PROFESSOR LIZARS.

“The houses having been evacuated of the sick by death, recovery, or removal to the hospital, the Board * * removed all the individuals who had been in contact with the sick to one of the unoccupied temporary hospitals, and placed them in confinement, under charge of the police, for eight or ten days. * * Fourteen individuals from four several houses have been put under temporary seclusion, all of whom have already been discharged; and no case of cholera has hitherto appeared amongst them, or in the neighbourhood of their residencies.”—*Edinburgh Medical and Surgical Journal*, Feb. 1833.

“From all I saw, there was no ground to infer that it was contagious. The Sandgate Cholera Hospital had been open for a fortnight previous to my departure, and no attendant, among the nurses or medical men, had been attacked. To give confidence to my patients, I often sat for half an hour upon the bed, familiarly conversing with them; and I distinctly felt that such foolhardiness would have been very wrong in a case of the common continued fever of this country. The circumstance of my wounding myself with a lancet, which I had just been using in one of the cases recited in the sequel, is an interesting fact, but the injury healed kindly, and has given me no trouble.”—DR MOLINSON.

“Not a single medical man has been affected with it in Sunderland, Newcastle, or Gateshead. The same remark applies to the very numerous professional visitors whom the disease has driven to these towns. All classes of medical men have fearlessly exposed themselves, and have added, as predisposing causes, bodily fatigue, long want of sleep, and great mental anxiety. Some have passed entire nights in the cholera hospitals, others whole days; several have used the stethoscope, many applied their ears to the patients’ naked chests, and necessarily inhaled their breath and the exhalations from their bodies with perfect impunity.”—DR LOWRIE on Cholera.

“If the public, however, dispassionately examine the writings of those who have seen this disease, they will find a huge preponderance in favour of *non-contagion*. The majority of the Indian medical gentlemen are *non-contagionists*, as may be seen by consulting the Bengal and Madras Reports. ‘In India,’ says Dr J. Johnson, ‘the contagious nature of the disease was denied by ninety-nine out of every hundred medical men in those parts of the world. Almost all the medical gentlemen of Sunderland, Gateshead, and Newcastle, are *non-contagionists*. Many who left Scotland contagionists, and visited those districts, have returned *non-contagionists*—as Dr Kirk of Greenock, and Dr Lawrie, Dr Thomas Molison, Mr H. Bell, and Mr Dickson. * * Drs Lorimore and Burton * * are also *non-contagionists*. At Musselburgh and Fisherrow the majority are *non-contagionists*.”—PROFESSOR LIZARS.

He put forty-five into their coffins in four days in the early part of February.*

The Quarantine Laws have proved all over the world a source of misery to mankind, and perfectly inadequate for the purpose for which they were invented.† They have proved injurious in the extreme to the commerce of the world; ruinous to our merchants; prejudicial to the revenue; and destructive to the moral and social duties of man to man. They ought therefore at once to be abolished. The vast, complicated, and important mercantile concerns of the whole universe, ought no longer to be kept in abeyance out of deference of opinion to a few bigotted and interested individuals, whom no circumstances or facts can enlighten, change, or alter their opinion. At the head of the Quarantine Laws are Drs Pym and Barry. They are both dreadful contagionists, and the reason would not be difficult to explain.—*See The Medico-Chirurgical Review*, Vol. XVII.‡

* "It is as free of contagion as a cut finger or an amputated limb."—PROFESSOR LIZARS.

"In the opinion of medical men, it is not infectious or communicable by human intercourse, notwithstanding the dreadful mortality occasioned by it. That the great extent of the Steppes, the period spent in crossing them, which varies from 33 to 90 days, and the healthiness of all the merchants, drivers, and other people, who have arrived at various places with different caravans, sufficiently show that these persons did not carry any infection along with them:—that, if it be assumed that an infectious matter may be concealed and transported in goods, it is inconceivable that such infection should not have been communicated in one way or another to the people accompanying the caravan, on occasion of the daily packing and unpacking of the goods, and the constant residence of the merchants and drivers in the encampment."—*Russian Report*.

"Cholera may originate spontaneously, and, if contagious, is very slightly so, and requires for its propagation a peculiar atmospheric constitution."—*Edinburgh Medical and Surgical Journal*.

"On the whole, the experience of England satisfactorily proves, that cholera is a much less contagious disease than typhus fever; and that in this respect it bears no comparison with scarlet fever and smallpox."—DR LOWRIE on Cholera.

"I am certain that amongst the class upon which the duties of benevolence must devolve, whose health is good and mind firm, there is no peril. I have visited the Gateshead Hospital during the time I had the honour of being physician to that institution, under all circumstances of physical depression; I have breathed the atmosphere of its apartments for hours together; yet I, the attendants, the nurses, all equally exposed, have equally escaped. Not a single individual in the profession has sustained an attack since the disorder prevailed."—DR D. B. WHITE.

"It is as clear as noonday that it is contagious."—DR THOMAS BROWN.

† "Contagionists, such as Drs Russell and Barry, certainly involve themselves in strange contradictions and inconsistencies; for while, on some occasions, they vary like lines in the cordage and sails of a ship; in others, they suppose it to remain dormant in the human body from seven to thirty days."—BELL.

‡ "The question of importation or domestic origin, as respects the Gibraltar fever, is one of immense interest, and deserves a philosophic investigation. This inquiry has been opened in France, and now in England. Our own impression was stated while giving an *exposé* of Dr Barry's paper, read before the College of Physicians; and all that we have since learned on the subject

If any thing were wanting to convince me of the folly of the doctrine of contagion, I have it in the manner in which one of its strongest advocates assures us that he avoids it. He says, he is "satisfied that the farther progress of this horrible disease will prove to the world the great benefits of sobriety, temperance," &c.; and adds, he "was quite sensible of its *exerting influence over him*." He thus describes the manner in which he got rid of it, and attended to his professional duties. He "*took care*," he says, "never to visit any one before swallowing some breakfast, with half a glass of the *very best brandy* after it, again taking a glass of the best port or sherry about one o'clock with a biscuit, and dining regularly, at or as soon after four as possible, upon a plain but rather solid diet; but if I ate of several dishes, I preferred the good old Scottish custom of a dram to the wine, and found myself much lighter after this last practice."

Now, if this does not look more like gormandizing than "*sobriety and temperance*," it is very odd. It puts me in mind of what I said of Sir Henry Halford's olfactory powers for the savory dishes manufactured at the royal kitchens of Windsor and St James' Palace. It was a curious way of the Doctor maintaining his opinion that "there should be no revelling, *feasting*, and *extravagance*," because "*the public distress* gave a ready vent for all our superfluous enjoyments." One would almost suppose the Doctor wrote his essay after he had "*ate of several dishes*," and followed the "*good old Scotch custom*," when he says, "the regimen I have recommended can only be obtained by the more substantial classes of society;" and with regard to the other, the "*difference* is in a great measure *counterbalanced by soup-kitchens*!"

But hear how he fortified himself when he visited a patient: "I washed my temples and forehead with aromatic vinegar, and spirits of wine, (*again at the spirits*), and camphor, mixed with a little water, *every time I returned home*, and also applied the mixture to my clothes, and these, together with *chewing cinnamon*, and keeping a regular state of the bowels, formed the whole of my defence."

It would appear that but for all these precautions the Doctor must have been one of the victims to the "*horrid disease*," the Cholera Morbus. His escape seems to have been quite miraculous. It would appear that he had several attacks, for he says, "in eight

has only tended to strengthen our conviction, that the Gibraltar fever was just as much imported from the Havannah with a cargo of cigars, as from Old England in the *snuff-boxes* of Drs Pym and Barry."—*Medico-Chirurgical Review*.

"Before the arrival of Dr Pym in the garrison, towards the termination of the malady, the word contagion had nearly become obsolete. So clear and satisfactory were the proofs of the endemic origin of the disease, to those who had witnessed its rise and progress, that no one doubted the accuracy of this doctrine; and Dr Barry himself, soon after his arrival, drew up a paper setting forth a variety of arguments corroborative of the same."—FRASER.

NOTE.—Astruc, on the V * *, says, that the chaste nuns of a certain nunnery were infected with the v * * disease by the impurities of the atmosphere.

days I got the better of my *different ailments* ; my pulse became regular, and I now enjoy better health than before the scourge came amongst us."

It is an old saying, it is an ill wind that blows nobody good. The Cholera, it would therefore appear, had done the contagionist great favours, though it killed a poor woman who happened to be looking out of her window when a person emptied a basin of blood into the river, which had been abstracted from a Cholera patient.*

Surely it is high time that some public investigation took place into the whole of the transactions of the Central Board of Health ; that the public were made acquainted with the sums of money they have cost them, for salaries and expeditions, and the amount paid out of the public purse to the different persons employed under them. There should be a schedule made out of every person so employed, exhibiting who they were, how and where engaged, and at what salary ; farther what portion of the Board now remains receiving pay, and at what expense.

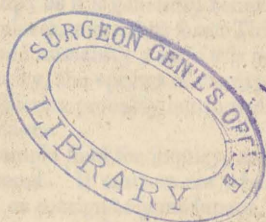
A return also ought to be made from every parish in the kingdom that has been rated for the Cholera, of what sums were raised, and how they were expended.

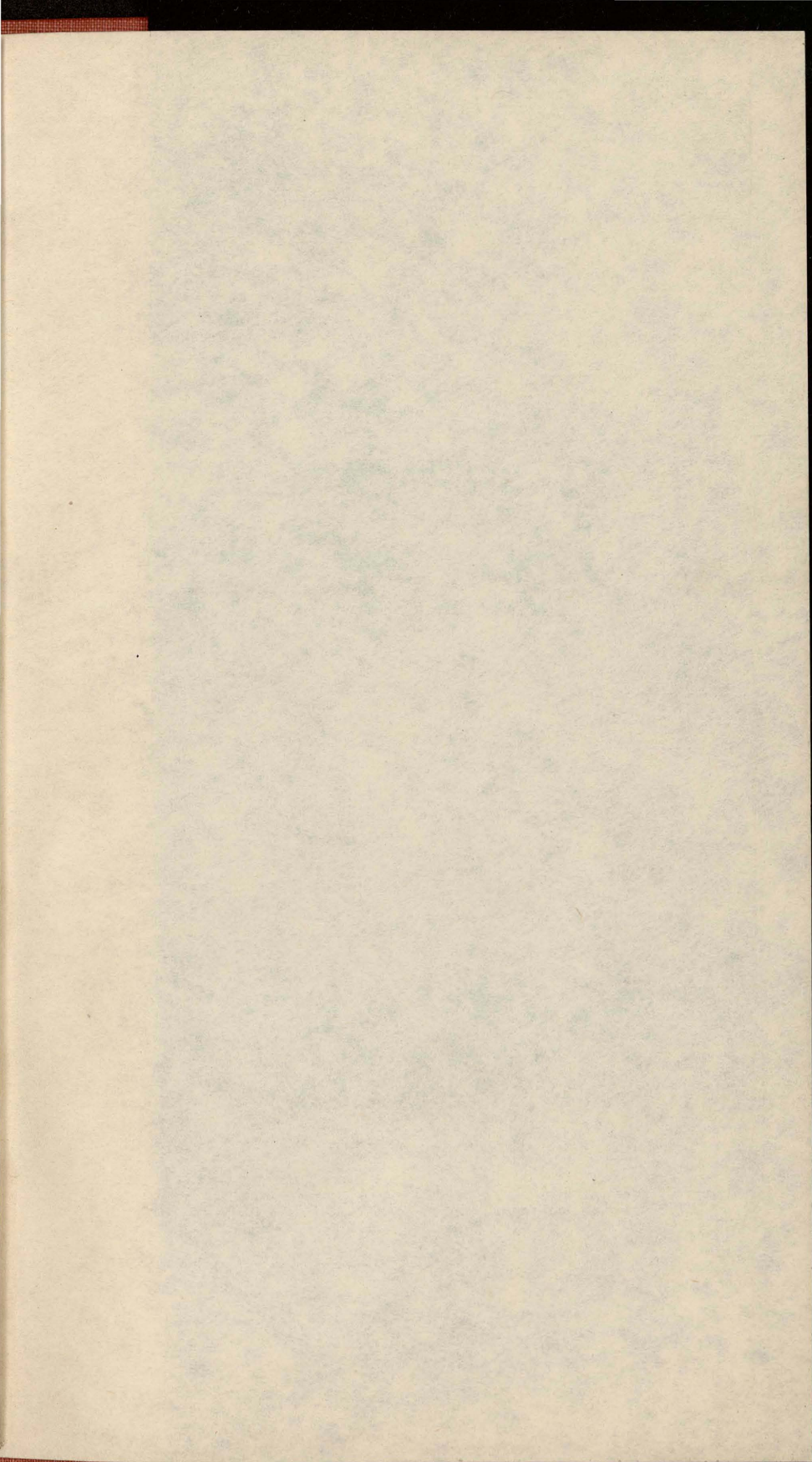
As soon as Parliament meets, an act should be passed to call upon all authorities who have been collecting private contributions, to deliver an account of their trusteeship ; as it is generally believed that great abuses were committed in some places, under that form. This is due to the public and the cause of charity and humanity ; for if it is not done, in the event of such another sad calamity, the springs of charity will be frozen, and the innocent victim of affliction probably left to want and pine, through the cupidity of former knaves.

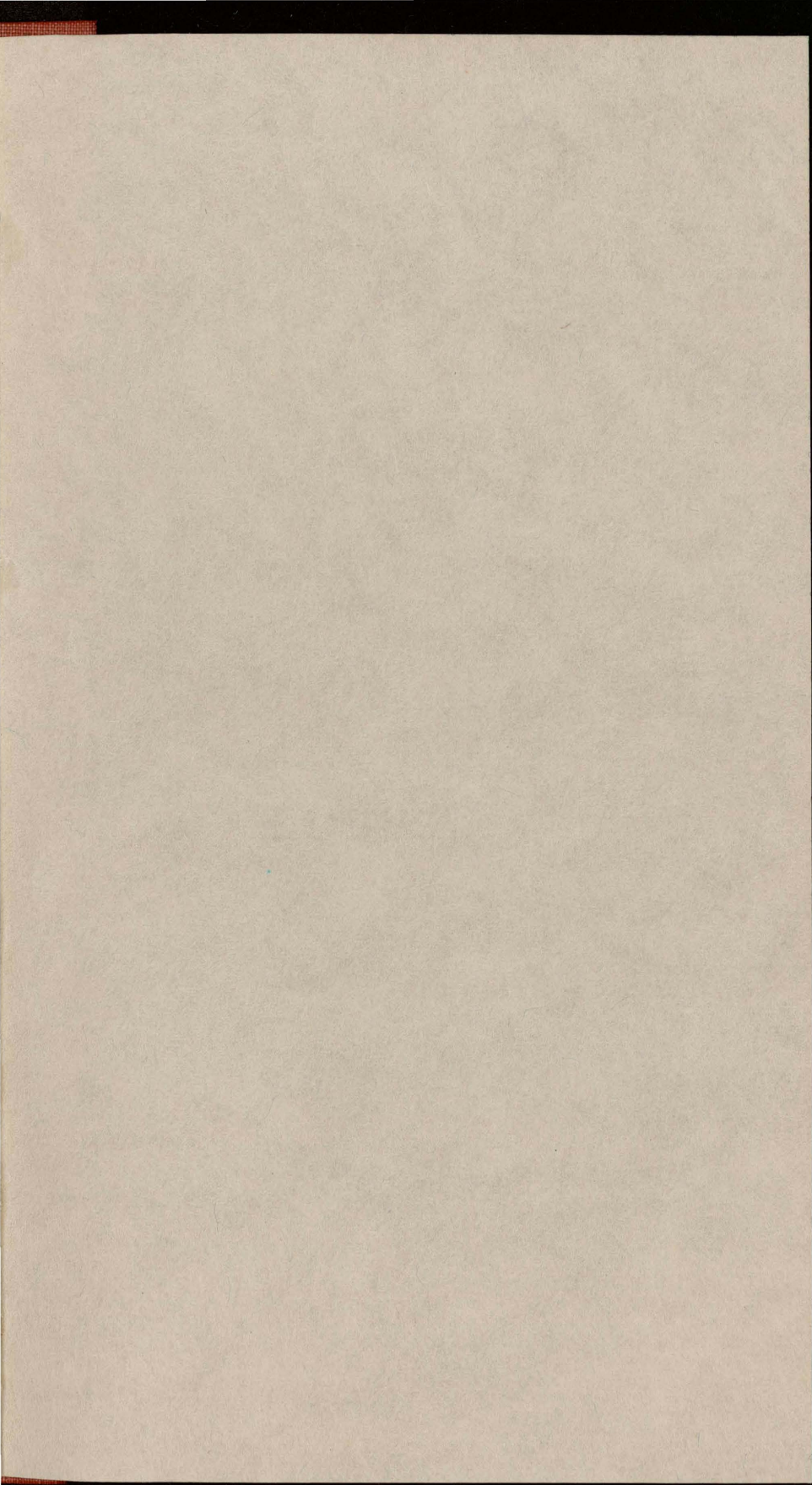
There is, in short, an ample field for inquiry, and which ought to be boldly and fearlessly entered. It matters not whom it may expose, or whom it may condemn, or consign to punishment, or everlasting ignominy. It is essential to the ends of justice and good government. It is a work for the government to perform ; and will not be neglected by one that knows its duty to the country, or has any regard for its character. If the government decline, why it is for the representatives of the people to do it for themselves ; and it is to be hoped, as soon as the Parliament assembles, some philanthropic member will move the question. Let this be done, and I will suffer my head to be cut off, if I do not produce a mass of evidence of facts of such an atrocious nature as will disgust the whole of Europe.

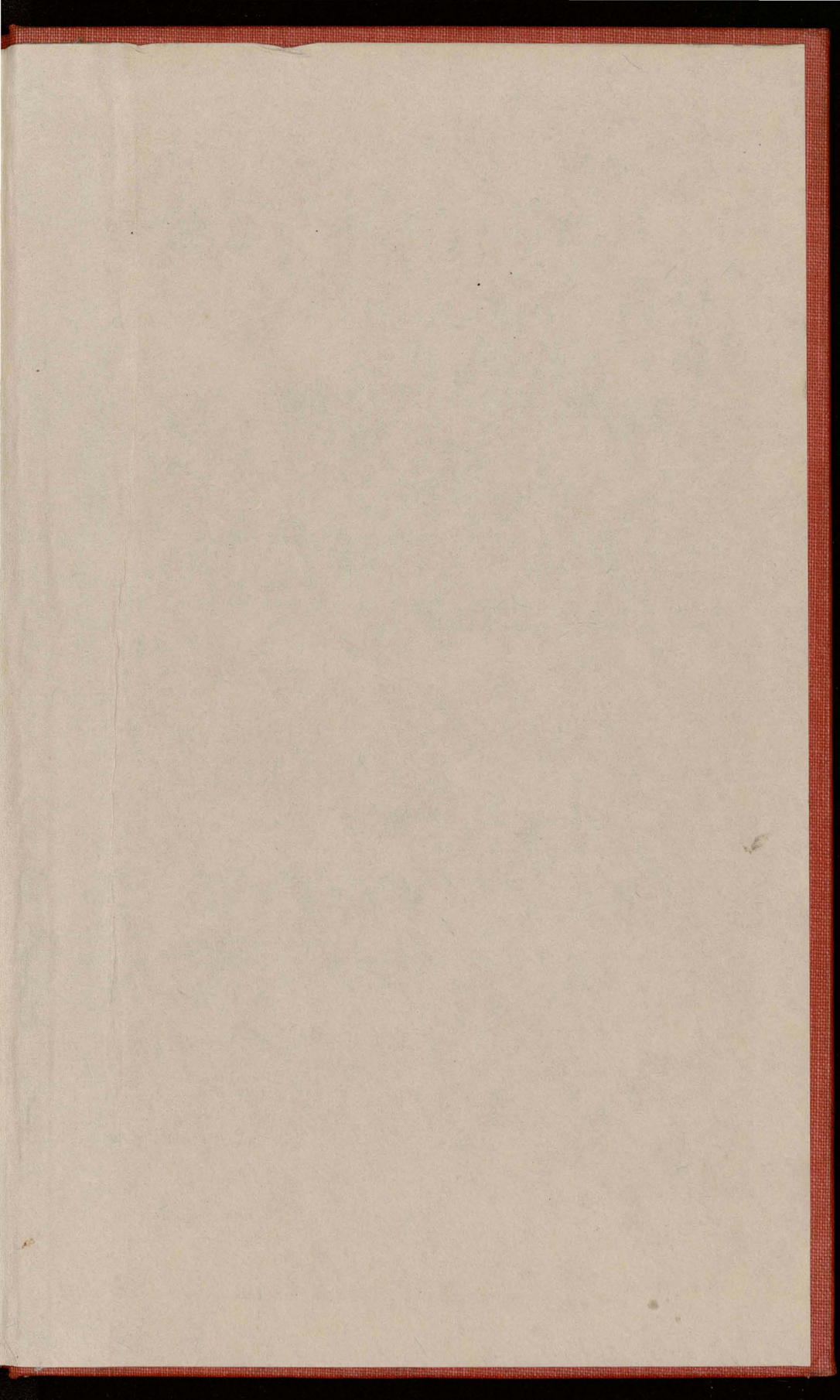
* "*I believe it may be here stated as a truth, that two men who were employed to take up a body at Tranent, or Prestonpans, for the purpose of dissection, have both died of Cholera.*"—DR THOMAS BROWN.

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