

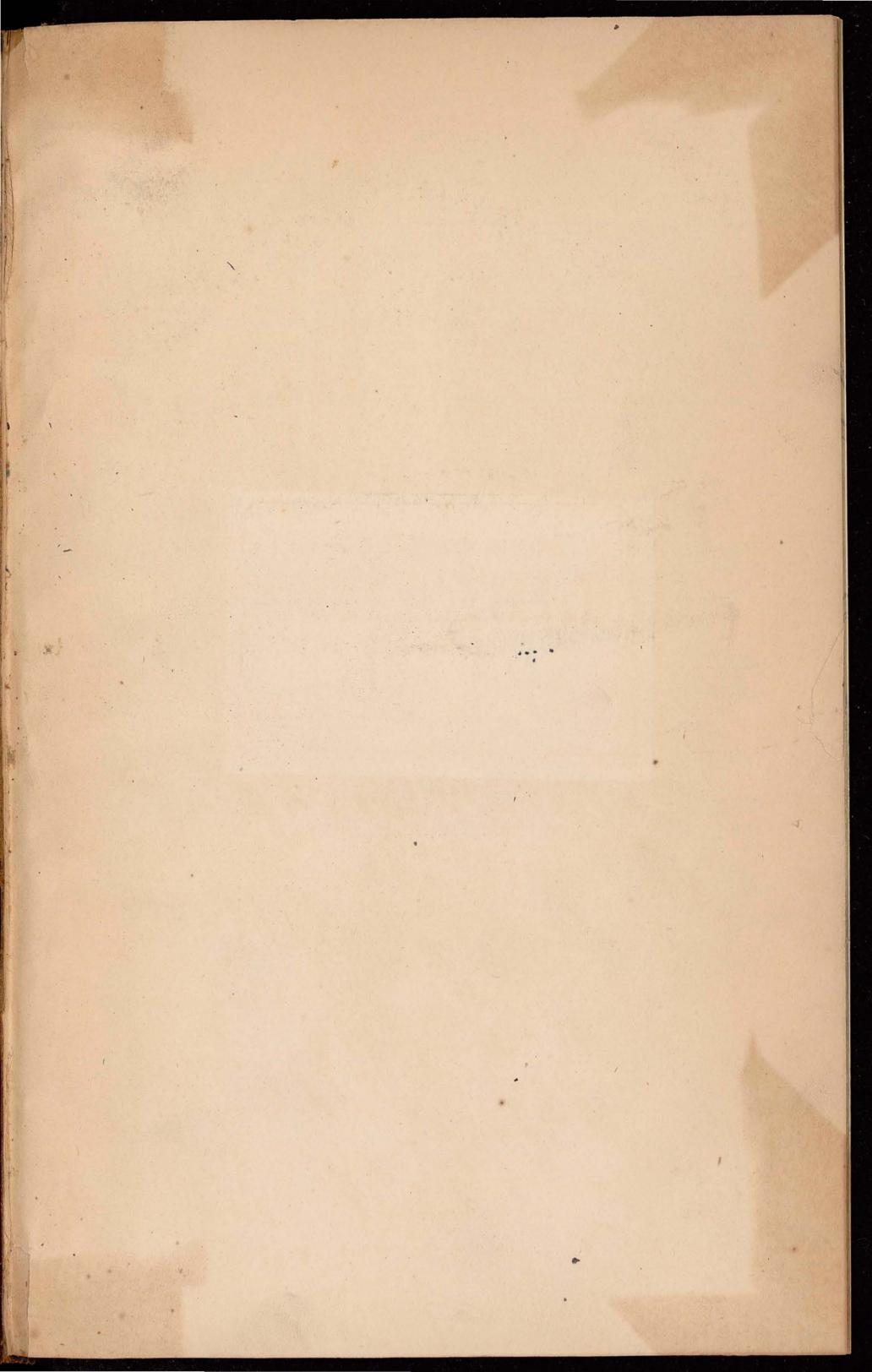
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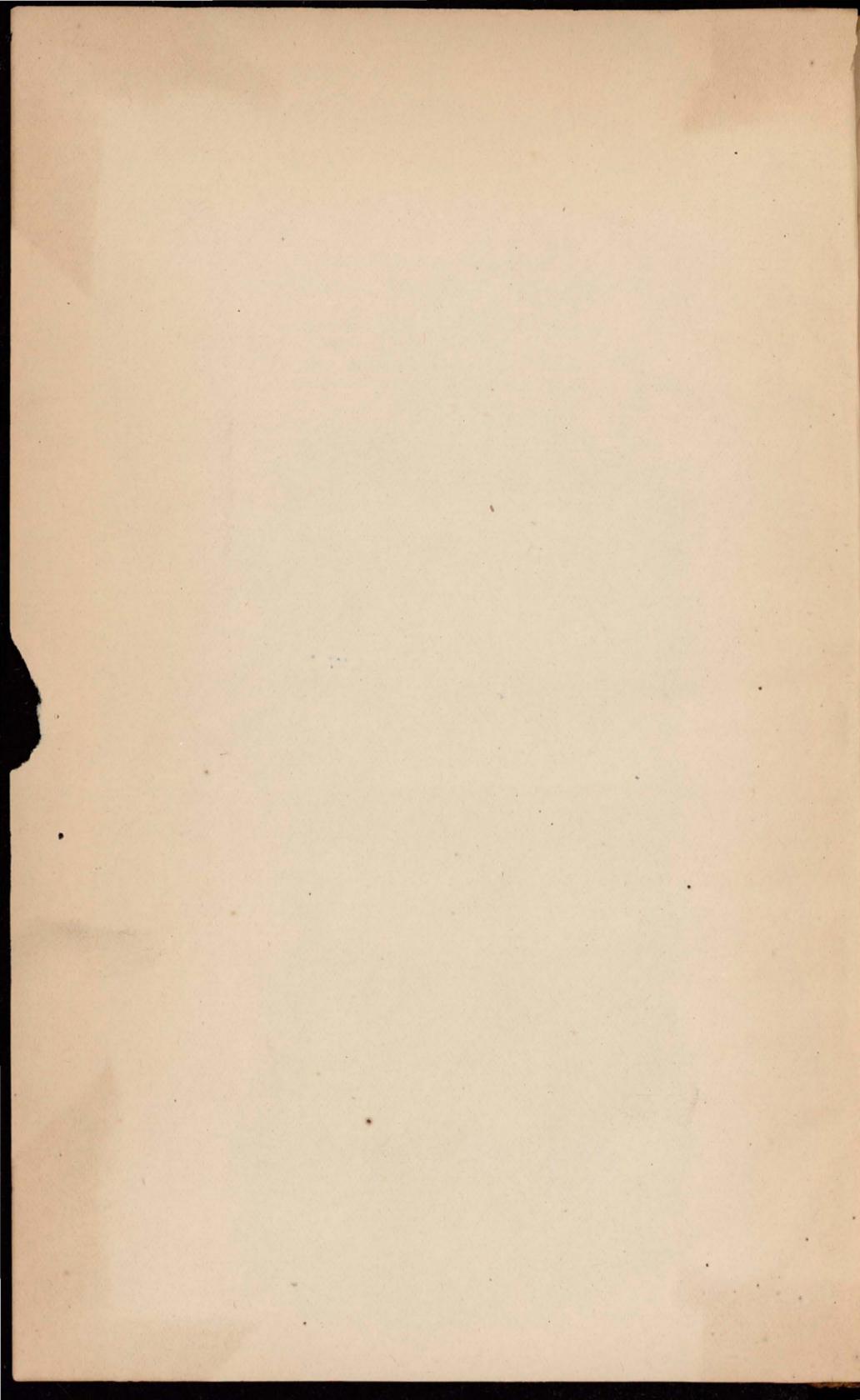
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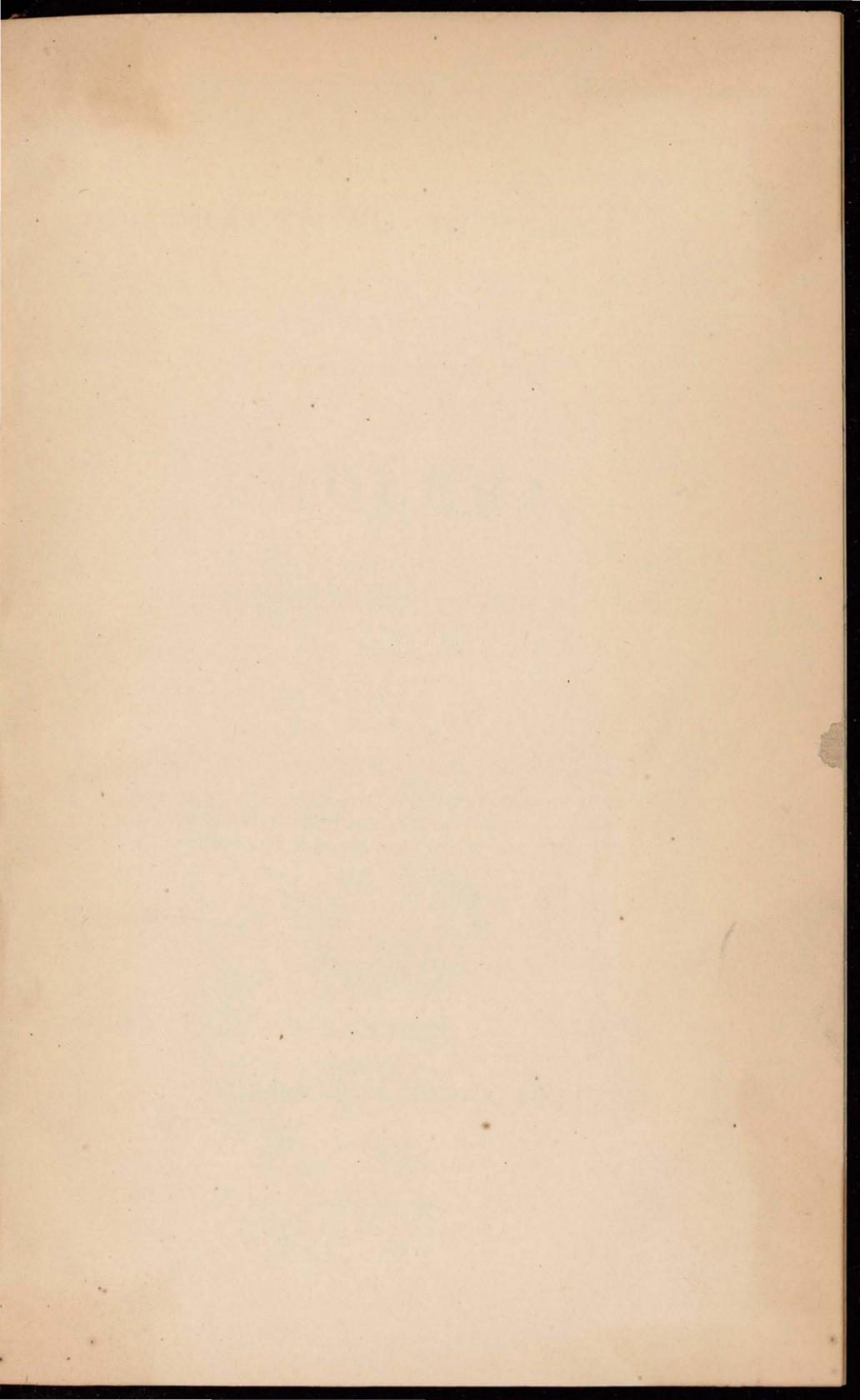
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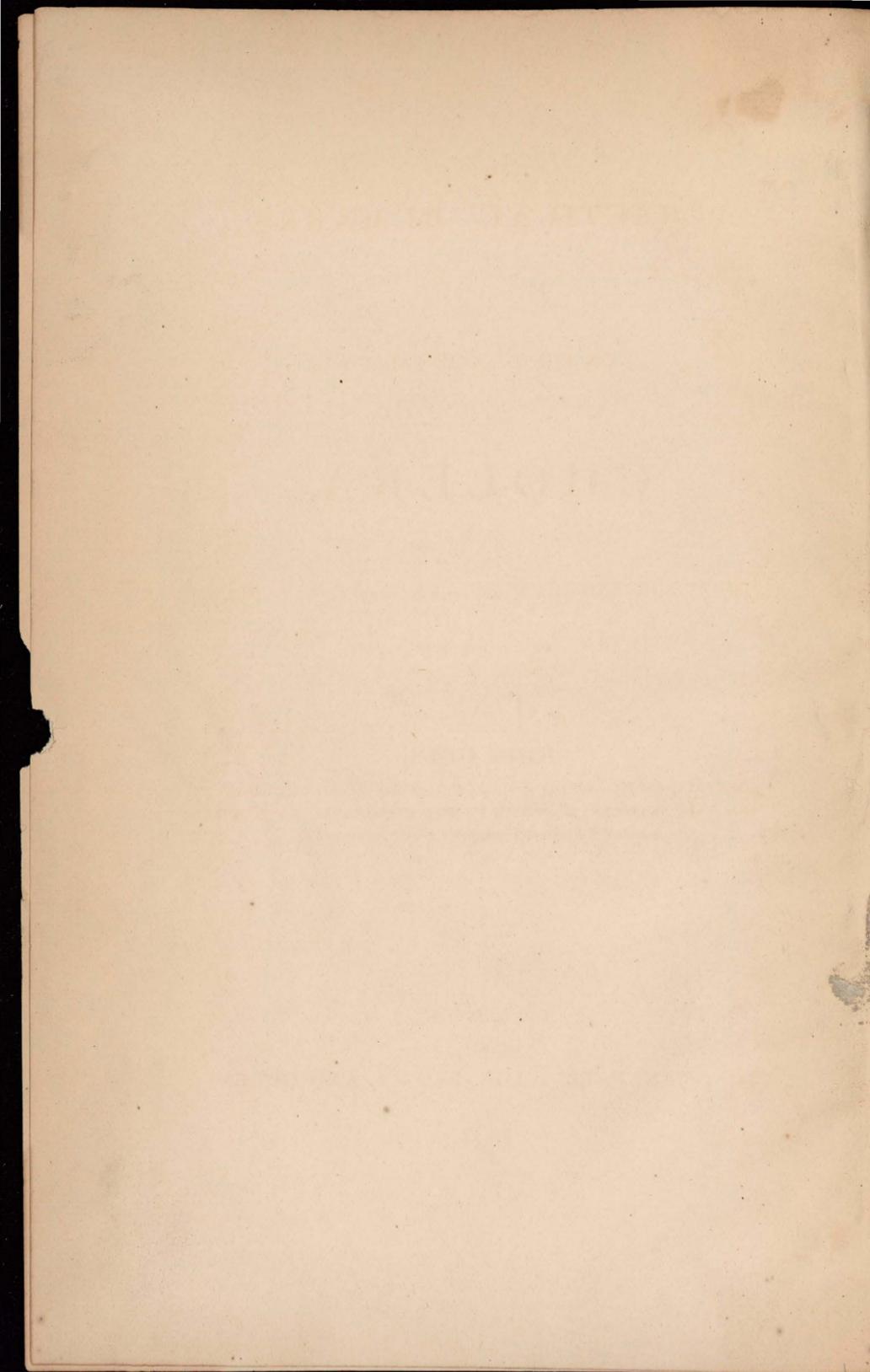
Section, *Cholera*

No. *18661*









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PRACTICAL REMARKS

ON THE DISEASE CALLED

CHOLERA,

WHICH NOW EXISTS ON THE CONTINENT OF EUROPE.

BY

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COMPANY'S SERVICE, BOMBAY ESTABLISHMENT.



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INTRODUCTION.

THE author having had frequent opportunities of witnessing the Cholera in India, has felt himself the more competent to the task he has undertaken; and should he have pointed out any thing in the following pages which can tend to prevent the introduction of it into this country, or to render the treatment more easy, as well as to allay the extreme and groundless fears of many, he will be amply repaid for his trouble. To render the following remarks intelligible to the public generally, he has studiously avoided as much as possible all technical terms. The symptoms as stated, faithfully explain those which the author found to exist during his practice; and all the different

modes of treatment fairly represent the result of actual experience. Particular attention to the exhibition of soda and ammonia is strongly recommended by the writer, as he has succeeded in curing all the cases in which he administered them, and he is not aware of their having been proposed by any other practitioner.

36, *Paternoster Row, St. Paul's.*

1st Nov. 1831.

ON CHOLERA.

THE near approach of the disease which has prevailed in Europe termed "Cholera," has induced me to publish a concise account of its symptoms and treatment, as I have witnessed and practised them in India, in the disease there called "Spasmodic Cholera," which I conceive to be one and the same disorder; together with a description of the means which appear to me to be the most likely to prevent its invasion.

SYMPTOMS.

WHEN the disease first attacks the system, the following symptoms will present themselves: A sensation of heat at the pit of the stomach,

slight giddiness, languor, nausea, frequent evacuations from the bowels, the secretion of urine very scanty, the pulse generally full and strong but always oppressed, and frequently a cold moisture on the skin, and the countenance expressive of anxiety. Should these symptoms not yield to the treatment which will be hereafter recommended, the disease will assume a much more formidable shape in a very short space of time, which may be termed its second or last stage. Vomiting in most cases, with the heat of the stomach greatly increased, and purging, will come on. The discharges from the stomach and bowels will assume the appearance of thin gruel, with flocculent matter floating in it; most distressing spasms of the muscles of the belly and extremities, beginning at the toes and fingers, will be felt; the skin will be shrivelled and covered with a cold clammy damp; the countenance expressive of the greatest distress and anxiety; the features sharpened, the eyes sunk and turned upwards,

the voice weak and hollow, the pulse at the wrist scarcely to be felt, and as the disease advances, not at all,—but the arteries, which convey the blood to the brain, will generally retain their action almost to the last. The respiration will be quick and laborious, the pit of the stomach drawn upwards and backwards, noise in the head will frequently be complained of, no urine will be secreted, great thirst will exist, and demand for cold water will be urgent, the nails will turn dark, the hands and feet will bear the appearance of having been soaked in hot water, and the tongue will present a most extraordinary character, having lost all its colour and being quite cold, as will also be the very breath of the patient.

Promptitude being absolutely essential, I trust I have been sufficiently explicit in my description of the symptoms of the disease to prevent the possibility of any mistake arising, by which the chances of the patient's recovery could be lessened, more particularly as I am

not aware of any other hitherto known in this country to which it bears any analogy.

TREATMENT.

Blood-letting.—In the post mortem examinations which I have made of patients who have died of Cholera, I have uniformly found congestion of all the internal organs and vessels, circulation of the surface having entirely ceased previous to death. I therefore recommend in all cases where it can be accomplished, that as large a quantity of blood as the individual can bear be taken away as quickly as possible, by two or more orifices, so as to diminish the quantity of circulating fluid sufficiently to prevent the vessels of the internal organs being distended to such a degree as to deprive them of their contractile power, and consequently their means of relieving themselves of the great surplus of blood occasioned by the inequality of its circulation, and also for the purpose of removing undue pressure from the brain, which

must tend to impair its functions, as I consider the want of nervous energy a most prominent feature of the disease.

External applications.—Frictions to the extremities, with equal parts of the

Compound Camphor Liniment,

Tincture of Cantharides, and

Spirits of Turpentine,

should be unremittingly applied until spasm ceases, circulation is restored, and perspiration breaks out, which should be encouraged by warm blankets, &c. Mustard poultices to the whole surface of the abdomen should be applied. Hot or vapour baths I have never known to be of any essential service: as they merely create a temporary outward heat without the power of restoring the circulation to the surface, therefore their application will occupy much valuable time, which might be more beneficially employed in rubbing, &c.

Medicines.—Numerous are the medicines which have been recommended to be adminis-

tered for the relief of this most distressing and agonizing disease, but none have as yet appeared to have acted with more than partial success. Such as have restored one patient have totally failed with another, although no difference in the symptoms could be detected. Brandy and laudanum have long been favourites, but I have never known a severe case recover by their powers alone: the use of laudanum or opium in any shape in this stage of the disease I consider should be avoided, as it must tend to diminish the functions of the brain, and consequently those of all the other organs of the body. Brandy, essential oils, warm aromatic drinks, &c. have all, over and over again, proved themselves unequal to restoring uniformity of circulation, although they will often be found to be useful auxiliaries. Calomel has been given in most "heroic doses" and in some cases with great benefit. I have myself witnessed one instance of its perfect success, where I administered thirty grains, and

repeated that quantity every ten minutes until the stomach retained one dose, which it did after the patient had swallowed two drachms ; following this with powerful purgatives, I succeeded in the cure ; but I think it fair to state that flattered by my good fortune in the above case I tried it in others and failed.

Having found all these medicines most uncertain in their action, I was led to investigate the state of the secretions, and if possible to discover if the semitransparent fluid which was vomited and dejected contained any thing to which I could apply an antidote.

From the cramps (which every one has experienced in a slight degree where acidity of the stomach has been known to exist), the extreme heat at the pit of the stomach, the excessive thirst, the great violence with which the bowels discharged their contents, the excoriating properties of the fluid (which I have frequently known patients complain of), the contraction of the common biliary duct at its entrance

into the intestine, the inflamed appearance of the mucous membrane of the stomach and small intestines, and the contracted state of the canal at different parts, I was induced to suspect the existence of strong acid in the secretions; I therefore resolved in the next case I was called upon to attend, to ascertain how far my suspicions were correct.

I was shortly after sent for to an old native woman who was labouring under all the symptoms of the second stage of the disease. I applied carbonate of soda to the fluid she vomited, which made it effervesce most powerfully; I therefore administered about a drachm of the soda with ten or fifteen grains of the carbonate of ammonia; the stomach ejected three or four doses, which were repeated as often as the organ became tranquil enough to admit of its being swallowed; ultimately one dose was retained, and half the quantity was given every hour until all bad symptoms had disappeared, and I had the gratification of witnessing my

patient's perfect recovery, without the aid of any other medicine excepting a dose or two of calomel and jalap, which should in all cases be occasionally repeated to obviate constipation, from the neglect of which relapses have been known frequently to occur.

Immediately after the above case, I was confined to my bed, and could not personally attend to any one. Four or five cases occurred during my illness, which were treated in the same manner, under my instructions, by a native assistant, *all* of which terminated favourably. From that period I had no opportunity of trying this remedy, being obliged to leave India to return to this country, but from my firm conviction of the superior advantages it possesses over all others I have tried, I do not hesitate to say, that I should place my whole reliance, were I attacked with cholera, on the following means:—Blood-letting to the fullest extent the system would bear; constant frictions with the liniment above prescribed, having a person to

each extremity; a mustard poultice to the whole surface of the abdomen, and carbonate of soda and ammonia being administered in such quantities as the urgency of the symptoms should appear to require, followed by occasional doses of calomel and jalap.

Emetics have been highly, and no doubt in many instances justly, extolled. I know not that they can act in any other way than by assisting the efforts of the stomach to relieve itself of its acrid secretions, which, I think, could be accomplished better and with less distress to the patient, by neutralizing them by the aid of alkalies. Where they are administered, twenty grains of ipecacuanha will be found the most desirable, repeated in a quarter of an hour or twenty minutes, or after the lapse of a longer interval, according to the effect produced; but should not immediate relief succeed their action, I strongly advise their being laid aside, and other agents being had recourse to, as I confess the result of my

experience has not been such as to cause me to confide much in their efficacy. I think it right, however, to state that I have often employed them, and in some of the milder instances of the disease have succeeded in restoring my patients, but in the more violent cases I did not find them beneficial.

Inhaling Oxygen Gas, as has been recommended, I think worthy of trial, because on dissection the blood has been found uniformly black and grumous, resembling treacle or tar, which appearance has also presented itself during life. In attempting to draw blood after the disease has existed long enough to run into the second stage, it can only be obtained by drops, or if in a stream it is so small, the blood is so thick, and runs so sluggishly, that only three or four ounces can be drawn; this shews very clearly that the fluid in its circulation through the lungs does not undergo that change which is necessary to the purposes of life, that it does not derive sufficient oxygen from the atmosphere

to throw off carbonic acid gas, which occasions its black state, and for want of a sufficient quantity to unite with the hydrogen, little or no serum is formed, hence arises that thick state of the blood which I have above described as resembling treacle or tar.

Re-action being established, the great necessity there will be for keeping it up by every possible means must be obvious, and the following will, I believe, be found sufficient:— Confining the patient to a warm bed, giving him freely spiced beef broth well thickened with isinglass, and every two or three hours the following medicine:—

Camphor Mixture,

Peppermint Water, of each, two large spoonfuls.

Compound Spirits of Ammonia,

Compound Spirits of Lavender,

Tincture of Henbane, of each forty drops,

to be mixed for each dose.

PROGNOSTICS.

Favourable.—The symptoms which might be considered as favourable to the well doing of the patient, are the following. Return of heat to the surface, the pulse of the wrist being restored; perspiration, which I again urge being encouraged in every possible way; cessation of spasms, a bitter taste in the mouth, and more particularly a copious flow of urine, and a free discharge of bilious fæculent stools. I may safely say, that whenever I have seen the two latter symptoms take place, recovery has always followed.

Unfavourable.—Where none of the above symptoms ensue within a very few hours, but on the contrary, when the skin is corrugated, shrunk, and with a cold sweat on it, the nails turned blue, the countenance distressed, circulation not restored, breathing interrupted and laborious, spasms severe, the bowels discharging the fluid totally unmixed with bile, with increased violence, and total suppression of

urine, we can hope for nothing but that death may speedily terminate the agonizing sufferings of the unfortunate patient.

PREVENTION.

THE opinions which have been formed by judges equally competent as to the contagious or infectious properties of this disease are so conflicting, that the great difficulty there is in deciding this most important point is manifest; therefore, whilst there exists the possibility of doubt on the subject, I deem it most incumbent that every precautionary measure be used to avert the invasion into this country of so dreadful a calamity.

I acknowledge myself a disbeliever in its contagious powers, but that would not justify me in recommending a suspension of that rigid quarantine which may be necessary for the safety of the nation, as I am well aware that far more able men than I am, differ widely on that subject.

I shall endeavour to point out what appears to me to be the best mode of keeping off the malady from our shores; and also such a line of conduct as, in the event of our being visited by it, would be most likely to disarm it of its virulence, and lessen the number of its attacks.

I shall, however, first of all make a few remarks as to its contagious properties, and, as I have before declared myself a strong advocate for the most rigid observance of the quarantine laws whilst any doubt on the subject exists, I am sure I shall be acquitted of having any other motive than that which is calculated to benefit my fellow creatures in what I am about to say.

If the public mind be too strongly impressed with the idea of Cholera being contagious or infectious, we shall find, in the event of its extending itself to this country, a great difficulty in getting proper persons to attend on the sick, which would be most fatal to the patient, as it is evident from the mode of treatment which

I have recommended, that the closest possible attention is necessary.

To shew that the disease is by no means so contagious as it is by many supposed to be, I may relate the following proofs :

1stly. That in India the medical attendants and nurses have not suffered in a greater degree than the rest of the community.

2ndly. That it has never been known to attack residents of the Hill Forts of the Deccan or Candeish, although the plains immediately below have experienced its fatal effects to a frightful degree, and notwithstanding that personal communication between the two places has been most uninterruptedly kept up.

3dly. That there have been many instances of the disease destroying a single individual without extending itself to others, although the sufferer has been a soldier or sailor, consequently surrounded by his comrades, and his clothes indiscriminately disposed of and used.

4thly. That without being able in any

way to account for the cause, places have been attacked by it suddenly and most violently, committing such destruction of human life in a very few days, as was never before known; and that it has also as abruptly disappeared.

5thly. That it has in many instances extended itself along one side only of a river, no one case of it occurring among the inhabitants of the opposite shore.

6thly. That when it has been raging in a town or village, it has most commonly attacked one member only of a family; and that where more have fallen victims to it, the cause has been satisfactorily explained by either peculiarity of situation, want of cleanliness, or extreme poverty.

I have mentioned these facts with the confident hope that none will be deterred from performing the great moral duty of rendering that assistance to the sick, of which they will stand so much in need, from the fear of the disease being either contagious or infectious, for I trust

enough has been said to prove that it is not so communicable by personal attendance as the advocates of contagion would lead us to apprehend.

To prevent its invading this Country.

Being firmly convinced that Cholera is not a disease easily communicated by one individual to another, or by merchandize, and as it has been proved to have been conveyed by ships from one country to another, I am persuaded that some other means, beyond the common quarantine restrictions, are necessary to prevent its extending itself to this country. A friend of mine has suggested to me the probability of the confined air on board ship being impregnated with the poison which causes the disease, and that by the hatches of a vessel being closed down previous to her quitting the infected port, it may, when it makes its escape in a condensed form, be more calculated to inflict the malady, should it meet with any

one predisposed to its effects ; and when once a case occurs, like all other epidemics, it would naturally be prone to spread itself. It must be observed, that where the disease has been conveyed by shipping, it has been in short voyages, where, in all probability, the means which in longer passages are resorted to for rarefying the air, such as wind sails, &c. passed down into every part of the vessel, have not been deemed necessary. I should therefore recommend, that every ship subject to the quarantine regulations, should not only be fumigated with chloride of lime, &c. in the usual way, but that a sufficient quantity of oxygen gas should be conveyed throughout every part of the interior of the vessel, previous to the hatches being removed ; for as the blood of Cholera patients appears not to have derived oxygen sufficient during its circulation through the lungs, to generate heat, or fit it in any way for the common purposes of life, I suggest the employment of oxygen gas in this way as a pre-

cautionary measure. As I am led to think it possible, from the foregoing observations, that one great peculiarity of that state of atmosphere which causes Cholera may be a deficiency of oxygen, I can see no objection to this experiment being fairly tried, until one more likely to accomplish the purpose for which I have recommended it be discovered; indeed I feel that in our present limited state of knowledge, as to the circulation and the effects of atmospheric air on the blood, every proposition should be fairly dealt with, where it can do no harm, and does not bear the character of absurdity. Oftentimes the most beneficial effects are produced by apparently the most improbable causes; and although I believe oxygen has not the power of decomposing any miasmata which might be floating in the air, still I think it might do good in this instance, by supplying a deficiency of that requisite, or that by a superabundance of it, it might prevent other poison-

ous matter from acting so powerfully in the manner, it appears, from the state of the blood to do, by depriving it of the means of generating heat, and affording that stimulus to the brain, which is so essential to the giving full effect to the nervous energy of the whole system.

*Regulations which should be adopted in the event of
the Cholera visiting this country.*

Cholera, like every other epidemic, is most destructive in low, damp situations, showing clearly that it is occasioned by the exhalation from the earth as well as by the electrical state of the atmosphere.

Some authors consider it solely dependent on the latter, whilst others are of opinion that it is under the influence of the two combined, which appears to me the most probable, as it is more general in damp situations, and as I have before stated, it has never been known to exist on those eminences, the Hill Forts,

which are above the influence of the terrestrial emanations from the plains, and I consider from their great height that they themselves do not emit them. Such being the case, it is clear that every means should be resorted to, to guard against damp and cold: that flannel next the skin, woollen stockings, and other warm clothing calculated to keep up free circulation to the surface should be used; that damp should be avoided if possible, and when people are inevitably exposed to it every care should be taken to counteract its ill effects, not by the free use of stimulants, but by changing their clothes as quickly as possible, and by inhabiting warm apartments. Ventilation should be perfectly free, and cleanliness in every possible way should be most rigidly observed. Diet forms a very important part of our preventive plan: it should consist of what is most nutritious and easy of digestion; and at the same time that I recommend a generous system with a moderate quantity of stimulants, such as wine, &c., I

cannot impress too strongly the great necessity of avoiding too free a use of them ; for although they may for the moment excite and apparently invigorate the constitution, they will by their powerful action on the brain leave it, (as soon as their stimulating effects go off), in a very inactive state, thereby diminishing the power of every other organ of the body ; and in the event of the disease attacking the system at that time, would deprive it in a great measure of the power of resisting its violent effects. Excess in eating is also highly improper ; the stomach should not have more to perform than it is perfectly equal to. The bowels should be studiously attended to, so as to secure one or two diurnal evacuations. The mind should be kept in as tranquil a state as possible in every respect, and above all not be allowed to be distressed by the fear of the disease.

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