

Surmises respecting the cause and nature of cholera; with suggestions as to the means that are adopted to prevent and cure that disease / [Edward Long Fox].

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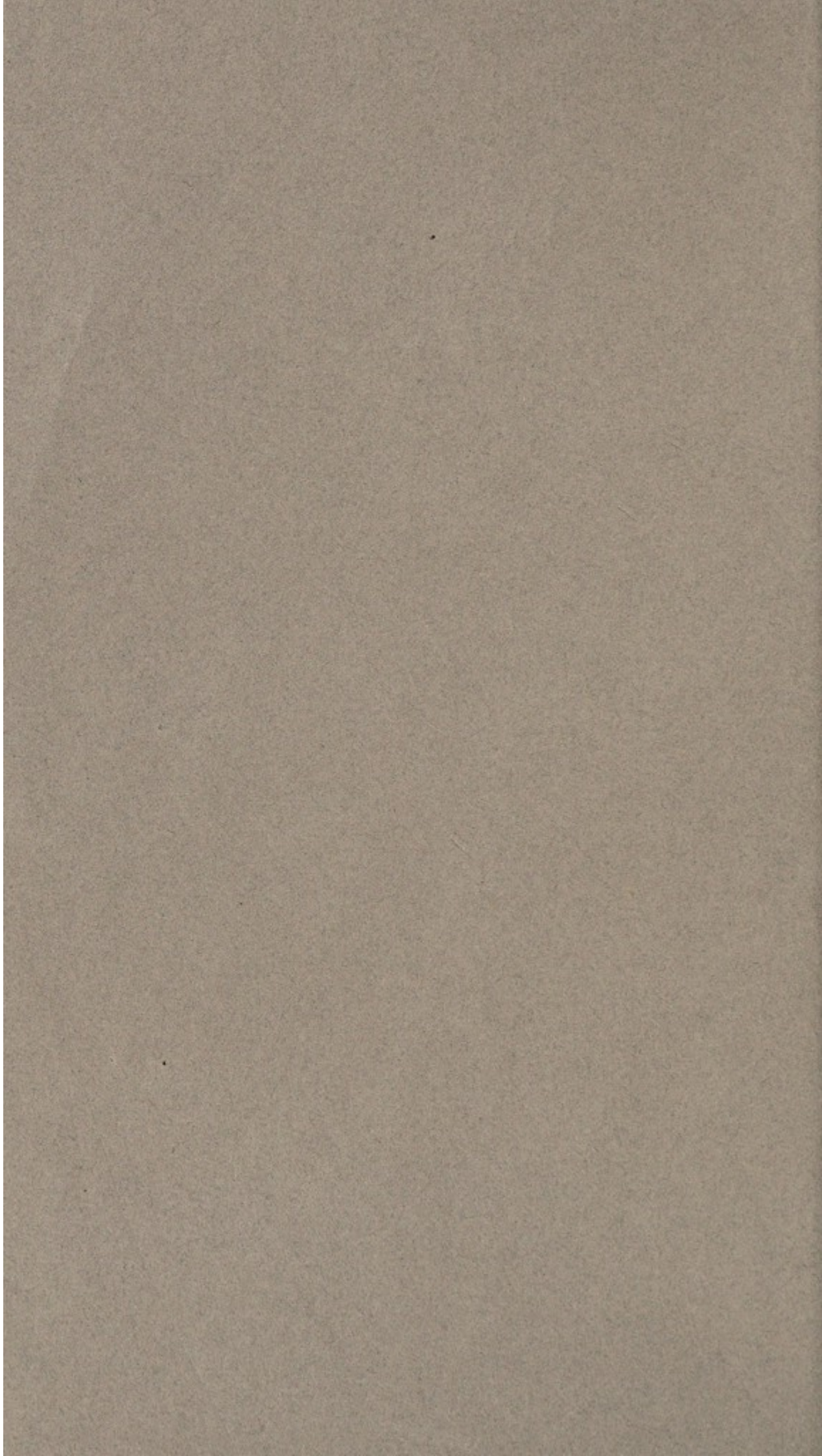


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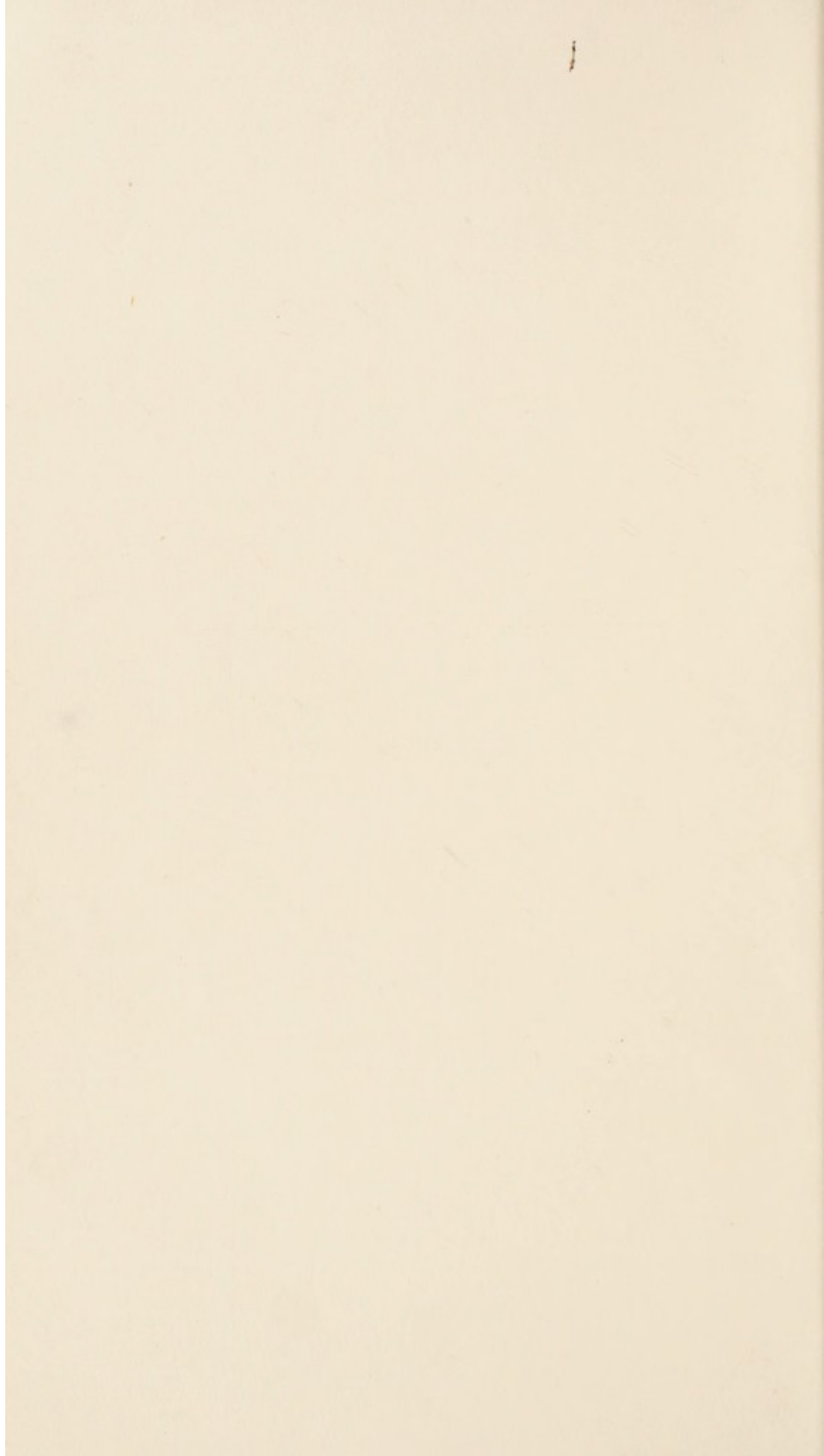


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SURMISES

RESPECTING

THE CAUSE AND NATURE

OF

CHOLERA;

WITH

SUGGESTIONS AS TO THE MEANS THAT ARE
ADAPTED TO PREVENT AND CURE
THE DISEASE.

BY

EDWARD LONG FOX, M.D.

BRISLINGTON,

BRISTOL.

BRISTOL :

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1831.

SURMISES

PRELIMINARY REMARKS

THE CAUSE AND NATURE

Aware of the variety that an author feels for his own opinions, I had intended to submit to the public the following suggestions for their selection each part as should seem most applicable to the prevention and treatment of Cholera.



but feeling as I have suggested as to the cause of Cholera, I have not ventured to propose for preventing the extension of the disease, it appeared to me, that the cause of Cholera is a pulse (if any) which would be greater by

DR. EDWARD FORD FOX, M.D.

The Cause means are intended to be used only by qualified medical men. Though the cause may appear large, it must be remembered, that the cause of Cholera is in most instances, the result of the operation of the patient's system. The cause of Cholera is in most instances, the result of the operation of the patient's system. The cause of Cholera is in most instances, the result of the operation of the patient's system.

PREFATORY REMARKS.

AWARE of the partiality that an author feels for his own opinions, I had intended to submit to the judgment of the Board of Health in London, some of the following suggestions, for them to select such parts as should seem most applicable to the prevention and treatment of Cholera; but, finding as I advanced, that the matter exceeded my expectation; and that, in the mean time, nothing specific had been proposed for preventing the extension of this dire calamity, it appeared to me, that the chance of rendering a public (if any) service would be greater by thus giving it a wider circulation.

The Curative means are intended to be used only by qualified medical men. Though the doses may appear large, it must be remembered, that the virus producing the disease is most potent in effecting the destruction of the patient in a few hours. The medicine, therefore, ought to be equally powerful, and exhibited at short intervals.

I wish it to be understood, that the antidotes to this disease, which I here recommend, are alone committed to the charge of the public; and, therefore, to prevent imposition from the vendors of drugs and quack medicines, the articles, with their composition and quantities, are given in our native language. Not so the curative means; for an opposite reason they are clothed as much as possible in the garb of medical phraseology, to hinder persons when first seized from undertaking the management of their own cases, or from committing themselves to the care of ignorant officious neighbours. I exhort them to call in the assistance of the most qualified professional person of the place, with the least possible delay, who, I hope, will keep a register of the sex, age, occupation, and residence of such patients; also, the progress of symptoms, prognosis, and mode of treatment.

Taking into consideration the novelty of the disease, I do most earnestly invite Practitioners to meet often, to compare observations, and to approach this enquiry with their minds as unbiassed and dispassionate as possible.

SURMISES, &c.

IN the summer, when the Cholera had arrived at Dantzic and Riga, I offered some thoughts on the subject, recommending the trial of means for the prevention of the wider spread of the infection, in those parts of Europe which had experienced the complaint, before it should approach our shores.

As I somewhat anticipated, the suggestion was unheeded, perhaps contemned, in short, has not been acted on. In the mean time, the disease has reached England, and has already exercised its baleful influence with unabated violence.

Taking it for granted that this disease is communicable, it is not defined what distance of time elapses, between the period of infection, and the first indication of the complaint. We are equally ignorant of the precursory or leading symptoms in the unfortunate cases at Sunderland, what prognostic signs are good or bad, and what may be the method of treatment.

It is now well understood, that in the disease of Small Pox, a certain number of days are required between the period of infection, and the eruptive fever. Thus, for aught we know, the cause of Cholera may be now lurking and concocting in

the constitution, and will only display its operation when the disorder is past remedy.

Since in the opinion of the cause and nature of Cholera, medical men disagree, I also may be allowed to advance conjecture in place of established fact. Without repeating my former observations here, I will refer the enquirer to the *Medical Gazette* of August.

My object at present is, to renew and to recommend to practice, remedies founded upon the hypothesis that this disease is of an animalcular origin, and that it can only be combatted by such means as will destroy animal life. To detect this animal, its form and mode of progression, is perhaps impossible; still, though we have not the evidence of our senses, nor the aid of microscopic power to establish the fact, we have, nevertheless, analogy and inference, from whence to deduce a probable conjecture.

A Spanish physician, Don Callos, asserts, that patients who had the Itch were preserved harmless from the Cholera. May not the curative means have had more influence than the disorder in procuring this immunity? It is commonly allowed, that the Itch is an animalcular disease, and more universally admitted, that nothing will correct this, the Shab in sheep, or the Mange in horses and dogs, but such articles as are destructive to animal life.

Medical men know well, and it has often occurred to me to witness, the almost fatal con-

sequences from the dissection of cadaverous subjects, caused by going to work either with what are called back-friends or nail-springs, or with accidental punctures on the fingers, thus inoculating the system with Morbific Virus, producing a local disease which frequently ends in Typhus. If my ideas be right, this ought to be considered a concentration of animated infection. Here we trace the progress of the infection, by an inflamed line along the lymphatics. The general influence on the system is a subsequent operation. The progress of this infection has been stopped, before and after it had reached the lymphatic glands of the arm-pit, by the application of a blister, dressed afterwards with mercurial plaister, spread on leather, applied, not upon the part where the poison had gained admission, but between it and the axillary lymphatic glands. On the contrary, the occasional cause of Cholera, being, as I conjecture, diffused in the atmosphere, or emanating from the earth, obtains a direct admission into the constitution, through the natural inlets of the system, by means of the inhalents or absorbing vessels of the nose, stomach, lungs, and the surface of the skin.

In corroboration of this hypothesis, all medical men agree in recommending cleanliness, and the removal of corrupt animal and vegetable matter, as tending to engender pestilence.

No one pretends to know anything of the disease termed Glanders in horses ; though it is well understood to be so contagious, that these animals,

when so affected, are not admitted to markets or fairs. Even wearing the same bridle, or drinking out of the same bucket, has sufficed to spread the contamination. By the ordinary mode of treatment, the disorder is deemed incurable. It was introduced into my stable about five years ago, by a newly purchased coach-horse, who was to all appearance in health, and for some time did his work well. By degrees he seemed to decline, and was sent to grass—one of my men, who had been acquainted with the disease, observed, that it was a pity not to destroy him, because he had got the glanders, and would infect the other horses. This advice came too late; on examination it was found that six or seven horses, mares, and foals, had caught the infection. The most celebrated veterinary Surgeon of the neighbourhood attended, and confirmed the opinion: prompt measures under his direction were adopted without success. The two first affected were killed; on inspecting their heads, a numerous congeries of ulcers with thickened edges were discovered on the Schneiderian membrane, and frontal sinus. Some had penetrated to, and nearly absorbed the Septum Nasi. Despairing of relief by the remedies in use, I determined to try the effect of corrosive sublimate, one grain of which was mixed with one ounce of arrow-root; this by means of a tin-tube two feet long was blown up the nostrils once a day, for three or four weeks. In consequence, two horses recovered, and are now in use. The

rest were destroyed, the advanced state of the disease having removed all hope of cure.

It is notorious, that the chloride of lime, sulphur, mercury, arsenic, tobacco, ignited tar, and various mineral poisons, with frequent ablutions, and cleanliness, are recommended as antidotes against Typhus, and other contagious disorders. Now, if these have any real utility, it cannot be by operating chemically on the atmosphere, and, therefore, it is reasonable to impute their supposed efficacy to their being hostile to vitality. Referring to the course which the Cholera has pursued, it is well ascertained, that though it affects both hill and dale, though it operates in cold and hot climates, yet it seems to prefer the neighbourhood of rivers and swamps, and is checked by the colds of winter. Now, it is notorious, that swamps and marshes swarm with animalculæ; and may it not be inferred, that persons and goods from such situations, if they are not the vehicles for the living animal, may yet transport the ovum from place to place, and be thus the carriers of Morbific Virus.

Before the devastation shall have acquired an insuperable extent, the precautionary measures I advise, may be comprehended under two heads.

I. As regards the regulations for preventing the conveyance of the cause of the disease from place to place.

II. The particular conservative means for protecting individuals.

Respecting the first head,

I.—PREVENTIVE MEANS FOR PLACES,

I advise—

1st. That approaches to Towns and Cities should, as much as possible, be reduced to the four cardinal points, and that all other inlets be barricaded, so that no other entrance should be permitted.

2ndly. The allowed approaches must be strictly guarded, and no one should enter without a clean bill of health from the Medical Board of the district to which he may belong.

3rdly. The nature of the wares of such persons ought to be ascertained, and, if likely to convey infection, prevented entering.

4thly. All the recommendations of the Board of Health, respecting the removal of rubbish from streets and alleys, as also the cleanliness of houses, should be attended to by public officers under certain penalties.

5thly. Heaps of stable straw, instead of being preserved for manure, should be carried to the roads leading to the principal barriers, and there set on fire, so as to occasion a smothered combustion, and diffuse ammoniacal gas; this practice is very common in apple countries, as a preventative against blight. Or, what would perhaps answer as well, trains of loose gunpowder may be laid across the entrances, and exploded four or five times a day.

6thly. All the rules of a rigid quarantine ought to be observed with respect to carriages, waggons, and persons. On no account are they to be permitted to enter from an infected place; and all of them should be furnished with a clean bill of health.

7thly. No person should be allowed to leave the town where he resides, without a passport, designating where he is bound to; nor suffered to re-enter it, without having the passport indorsed as clean.

II.—CONSERVATIVE MEANS FOR INDIVIDUALS.

Having now stated my views on the causes, and means for preventing the extension, of the disease, I subjoin forms of medicines, as Conservative means for individuals. They are intended both for the affluent and the poor.

Admitting my hypothesis that this disease is produced by animalculæ, I have endeavoured to obstruct their entry into the system through every inlet. It must, however, be recollected that this conjecture is proposed as probable in the absence of any other satisfactory explanation. The existence of such a cause is not, I allow, palpable to the senses; yet the infinite subdivisions of animated nature are not to be denied: we know nothing of the mode of transmission, except this negative fact, that a long voyage destroys the infection. For though the supposed animalcula must have frequently been imported on board our East India

ships, its limited term of existence appears to have been concluded before the end of the voyage, and the ovum or the young animal to have been destroyed by the vicissitudes of climate and season, before it reached Europe.

1st. With the view of guarding every avenue of the body against the entrance of this disorder, I advise the following preparations :—

Take of damask rose leaves any quantity, dry them before the fire till they are crisp, then reduce them to a fine powder for use. Take equal weights of this powder, and of crude quicksilver ; rub them together in a mortar with a pestle both previously heated by boiling water ; add a few drops of warm water, so as to make rather a stiff paste, and in a few minutes the mercurial globules will disappear by friction.* Mix one ounce of any kind of snuff with two drachms of the above preparation, which will form a snuff to be used in any reasonable quantity, and may prove an efficient protection for the entrance by the nose.

Let all the healthy persons in a family be congregated every morning in rather a close room, while thirty grains of vermillion are evaporated from a heated iron. Let each person breathe this vapour while it lasts. The same good effect may

* This is a better prescription than the College form for the mercurial mass, as well for dispatch, as that being a perfectly dry mass, it can be exhibited as a powder as well as pill.

be obtained by persons who, addicted to smoking tobacco, put ten grains of the same upon the surface of the ignited tobacco, and endeavour every night to inspire the fumes.

For the protection of the stomach, let each person take a bolus composed of the following articles:—

Take of Æthiop's mineral and flower of brimstone, of each ten grains, camphor five grains, mix them into a bolus with syrup of ginger.

Or instead; take as a draught every other night ten drops of Fowler's Mineral Solution, in one drachm of infusion of tobacco, and one ounce of water.*

If an aperient be required:—

Take of flower of sulphur half a drachm, jalap eight grains, electuary of senna a drachm, to be formed into a soft electuary by as much spirit of turpentine as will be required.

Much is said about Vapour Baths—they certainly are objects of prime use, and may well be employed every morning in cleansing the skin, preparatory to the means hereafter noticed. Every individual should, after a warm or vapour bath, be sponged with one of the following lotions:—

Take of corrosive sublimate eight grains, of sal ammoniac ten grains, camphor three drachms, spirits of wine two ounces, distilled water ℥i; mix them together, and label the bottle, "Lotion."

* The form for this Infusion is extracted from a little work on Dropsy by Dr. Fowler, of Stafford, as follows.—

Take of Tobacco leaf 1 oz.

Boiling water.....1 pint.

To infuse for an hour in balneo mariæ (a sand bath)—afterwards express 14 oz. and add 2 oz. of rectified spirit to preserve the infusion.

Or ; Take of cayenne pepper and camphor each two drachms, spirits of wine two ounces, boiling water ℥i; mix them, and, when cold, strain for use.

Or, instead of the lotion, lubricate the whole surface of the body with the following liniment:—

Take two grains of corrosive sublimate, eight ditto of sal ammoniac, four ounces of camphor liniment, mix.

Or, for the poor, three grains of sal ammoniac, two grains corrosive sublimate, ætherial spirit of turpentine, and olive oil, of each three ounces; mix these together.

Here it may be well to observe, as I have recommended the external use of mercury, that the dose, though harmless to the human frame, is sufficiently potent to destroy in one night myriads of animalculæ.

A medical friend relates having been informed by a gentleman, that during the late pestilence, either at Riga or Petersburgh, a person, who carried on a large manufactory in the most unhealthy part of the city, and employed four hundred men, had prevailed on them to wear a Burgundy pitch-plaister, over the pit of the stomach and adjacent parts; and that they all escaped contagion. The practise was adopted by a Consul in the place for his large family, with equal success. I vouch not for the truth of this statement, as it is given at third hand; but, if true, it increases confidence in the use of turpentine as a preservative and curative means, because Burgundy pitch is the same substance in a concrete state.

With respect to the majority of the poorer classes, they have so little reflection or useful resource, that they require to be cared for like children. Being obliged to expose their persons to every inclemency, or to starve, they should be urged to shun excess in fermented and spirituous liquors, and to prefer weak spirit and water to the malted beverages. When they are compelled to work in the wet, it will be better to wear no shoes and stockings, provided, on returning to their nightly abode, they can wash and dry their feet and legs, and put on a pair of dry worsted stockings and list slippers.

CURATIVE MEANS.

The remedies to be subjoined, being specifics, need not interrupt any plan of general treatment that the physician in attendance shall think advisable. The same cause, which in a plethoric and vigorous habit may call for bleeding, will, in an opposite state, require support and stimulants. I cannot but fear, that the abstraction of blood, upon any other principle than that of diminishing general excitement, or of lessening congestion, may do great injury; having no foundation but theory or rather hypothesis, I am also somewhat diffident about the propriety of warmth, applied by blankets and poultices, in the early stage of the disease. If the coldness bear any similarity to the rigors of Ague, Typhus, or the Exanthematous fevers, it is well known that there is

nothing equal to cold bathing, cold effusions, cold drinks, and exposure to cold air, for lessening the continuance of that stage, and for mitigating the violence of the succeeding one.

But, we must not forget, that, while the occasional cause remains unsubdued, “*Hæret lateri lethalis arundo;*” therefore, as the time allowed for action is short, the specific remedies I advise, ought to be administered every hour for three or four times; afterwards the interval may be gradually increased, in proportion to the effect produced.

The cajeput oil, the essential oils, of peppermint, sage, thyme, carraways, aniseed, cloves, and of cinnamon, may be taken, I presume, with equal efficacy, one as the other.

Though I have had no experience of such large doses of the Essential Oils, I have no hesitation in suggesting them, since we hear of doses of from fifty to one hundred drops of Cajeput Oil, and of from two to four ounces of Spirit of Turpentine, for the *Tænia*, having been given without dangerous consequences. This, however, must be left to the judgment of the medical adviser.

At the first accession of the disease, I recommend the following bolus and draught:—

℞.—*Massæ hydrargyri supra præscriptæ* ℥ss.

Camphoræ pulveratæ gr. viij.

Confectionis aromaticæ q. s.

Ut fiat bolus cum haustu sequente omni horâ ad quartam vicem sumendus.

℞.—Spiritus ætheris terebinth. ʒij.

Olei carui g^{tts.} iv.

Lactis recentis pauxillum ut ft. haustus.

Not needlessly to multiply the prescriptions, it is to be remarked that the essential oils will require to be triturated with the yolk of egg, or white sugar, mucilage, or honey, otherwise the oil will be left behind, adhering in globules to the side of the glass. They ought to be administered in large doses, frequently repeated, not in mixtures, but in distinct draughts, and the best vehicle, I apprehend, will be a strong infusion of the radix Zingiberis.

These doses ought to be given at the same time with other specific remedies, as mercury or sulphur, according to the choice of the prescriber. Here it may be remarked that though essential oils, camphor, turpentine, &c. are powerful stimulants, they bear no relation to wine, spirits, or inebriating drugs, which operate as cordials through the proportion of alcohol or narcotic power they contain; and are, I fear, in the disease of Cholera, of doubtful efficacy; whereas the stimulus of the class of medicines above referred to, affect, by their pungency or acrimony, both the patient and the living animalcular virus; and may be taken to any amount, without inebriating, but not, perhaps, without caustic effect.

For a draught to be taken every hour, I would recommend the following prescription:—

℞.—Balsami sulphuris anisati g^{ttss}. xx ad lx.

Mellis q. s. ad miscendum cum lactis recentis
pauillo.

The spiritusætheristerebinthi with milk has been given in very enormous doses in other diseases, and may be as freely administered in this. So also camphor, which I presume to be the same medicine in a concrete state; and must be given in the form of camphor mixture unstrained, or in that of bolus.

To pursue the enemy under the cutis, cellular membrane, and every receptacle beneath the epidermis, I advise the thighs and arms to be surrounded by a narrow strip of emplastrum cantharidis spread upon leather; the blister produced to be afterwards dressed by the emplastrum ex hydrargyro, also spread upon leather, by which means the absorption of the mercury into the constitution will be facilitated.

Since the symptoms indicate the primæ viæ to be greatly affected, and the inspection of the dead body has exhibited some unnatural appearance of the colon, I recommend the following enema to be administered once a day at least, and to be retained as long as possible; for, from the disposition to Diarrhæa, it will probably be soon rejected.

℞.—Unguenti hydrargyri fortioris ʒfs.

Decocti seminum lini vel cujuslibet decocti inspissati ꝥi. m. ft. enema, agitato instrumento, adhibendum.

I know not what there is of a destructive nature in quassia, but experience shews that flies die

by thousands that taste the infusion, though it may have been, I fear, too frequently an article of our common beverage. Perhaps on account of its poisonous quality it may be used as a vehicle, instead of the *infusum zingiberis*.

In treating this disease, I hold that we want the guide of experience, except as to the cajeput oil, which, however, I fear, has little better foundation than the practice of old women in India. In this position of difficulty, I propose for the same purpose, viz.—the destruction of animalcular life—Fowler's Arsenical Solution, in the following form:—

℞.—Solutionis arsenicalis g^{tts}. viij.

Aquæ distillatæ ℥i. m. ft. haustus.

Capiat omni horâ ad quartam vicem, deinde secundis, quartis, vel sextis horis, ad arbitrium medici.

The efficacy of this medicine has now been so long ascertained, and has been given without injurious effect in cases of Ague, that I propose the trial of it here, on account of some supposed analogy between the diseases.

℞.—Camphoræ pulveratæ.

Carbonat. Ammoniæ ā gr. viii.

Opii pulverati, gr. i.

Sub. hydrargyri gr. ij.

Semin. Capsic. Ann. gr. ifs.

M. cum. spt^s. terebinth. q. s. ut ft. bolus omni horâ ad 4^{tam}. vicem sum^{dus}.

℞.—Mellis ℥s.

Ol. amygd. d. ℥fs.

Spiritus æth. terebinth. ℥vi.

M. capt. cochl. unum cumulatam sæpe.

Forms of medicine of similar tendency will occur to the practitioner, who had need be on the alert; for, however the disease may appear at present to be on the decline, mitigated, or even subdued, if my idea be correct, the vernal and summer heats will reproduce the cause, and bring forth the disease with redoubled virulence.

These formulæ display sufficiently that they are conformable to my views; and I leave medical men who coincide with me to extend their range.

Before I conclude, it is scarcely necessary to say, that these forms are not meant to be employed simultaneously, nor mixed. They are proposed as an experiment. One kind of conservative and curative means ought to be tried with one, another with a different set of patients, in order to determine which to prefer.

Finally, I hazard the proposal of a new remedy, of doubtful efficacy:—If an electric shock, by passing through the body, is capable of operating so sensibly upon the human frame, may it not deprive an inferior living being of vitality, thus pervading the inmost recesses of the system; or, if it exist solely in the primæ viæ, may not the shock so weaken its attachment, that the *crisis* produced by a brisk emetic or a terebinthine purge, may subdue and expel the pest from without the body?

Thus, by every means for the destruction of animacular life, would I attempt the cure of

the patient: "Anceps remedium melius nullo."

Because the ordinary practice, (especially in our own country) appears to have no claim to success, the question arises whether it be founded on right principles. I acknowledge, that feeling the insufficiency of what is supposed to be the present practice, I have less hesitation in putting forth new ideas and proposing a mode of treatment; especially as, being specifics against a particular virus, my recommendations can be tried under either of the conflicting systems. Now, moreover, that the disorder appears to be limited to the Town of Sunderland, I am desirous of something being adopted besides the common preventive means, before the ravage has acquired greater extent.

Thus far I have endeavoured in a few sentences to perform my duty. The only reward I seek is, that the result of the experiment may correspond with my desires.

The Board of Health in London advise cheerfulness; excellent counsel, could it be always at our command. But, in the midst of so much desolation, wretchedness and woe, there must needs be sorrow of heart. What external means are recommended to prevent despondency? In the present aspect of the disease there is only a fearful looking for of this terrible judgment.

Influenced by the conviction that the visitation of this calamity is from the Divine Being,

and meant for our good (for the Almighty permits nothing otherwise); let us wait upon God in sincerity and humility and with fervent prayer, to grant us a heart of repentance, leading to amendment of life. And, as we address him by the title of our Father, let us shew by our obedience that this feeling influences all our thoughts and actions. Let us pray that our will may always be subject to his will. In such a state of mind we may entertain confidence and cheerfulness; short of this, cheerfulness is delusion or stupid indifference.

BRISLINGTON HOUSE,

November, 1831.

FINIS.

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and meant for our good (for the Angels) and
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ORIGINATOR HOUSE
November 1881

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