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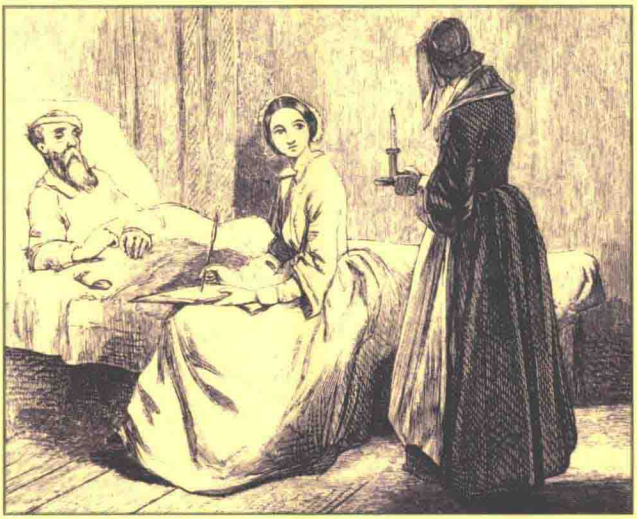
DISSERTATIONS ON [redacted]LARIA, CONTAGION AND CHOLERA

Explaining the Principles Which Regulate Endemic, Epidemic, and Contagious Diseases, with a View to Their Prevention

William Aiton



Cambridge

DISSERTATIONS

ON

MALARIA, CONTAGION,

AND

CHOLERA;

EXPLAINING THE PRINCIPLES WHICH REGULATE

ENDEMIC, EPIDEMIC, & CONTAGIOUS DISEASES,

WITH A VIEW TO THEIR PREVENTION:

INTENDED AS

A GUIDE

TO

MAGISTRATES, CLERGYMEN, AND HEADS OF FAMILIES.

By WILLIAM AITON, M.D.

MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF LONDON;
EXTRAORDINARY MEMBER OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH;
AND SURGEON OF THE ROYAL NAVY.

"The means of prevention are more within our power than those of cure."

Sir G. BLANE.

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It is sobering to realise that as recently as the year in which On the Origin of Species was published, learned opinion was that diseases such as typhus and cholera were spread by a 'miasma', and suggestions that doctors should wash their hands before examining patients were greeted with mockery by the profession. The Cambridge Library Collection reissues milestone publications in the history of Western medicine as well as studies of other medical traditions. Its coverage ranges from Galen on anatomical procedures to Florence Nightingale's common-sense advice to nurses, and includes early research into genetics and mental health, colonial reports on tropical diseases, documents on public health and military medicine, and publications on spa culture and medicinal plants.

Dissertations on Malaria, Contagion and Cholera

When this book was first published in 1832, England was caught in a cholera pandemic that had already claimed hundreds of thousands of lives across Europe. It was commonly held that 'bad air' spread the disease, but theories and remedies varied: one doctor advised the Nottinghamshire public to carry silk cushions filled with myrrh and camphor to strengthen resistance to contagion, while in New York officials suspected that raw vegetables and cold water were the root of the problem. In this fiercely logical treatise, ship's doctor William Aiton cuts through even the most prevalent myths to investigate the pandemic's real causes. Throwing out the theory of bad air, he observes that cholera spreads most quickly in cities with a stagnant water supply and overseas trade. Also addressing the spread of other infectious diseases, his work provides an invaluable insight into the conflicting information available to the general public during pandemics.

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TO

His Most Excellent Majesty

WILLIAM THE FOURTH.

Sire,

From the benevolent attention of your Majesty to every department of the Navy, and from your most gracious condescension to receive any suggestions which tend to promote the welfare of every class of your Majesty's subjects, sprung my first hope and best encouragement to solicit the honor of that permission which now enables me to place the following sheets under the most gracious protection and distinguished patronage of your Majesty.

I have the honor to be,

With profound respect,

Sire,

Your Majesty's most obedient,

and most devoted humble Servant,

WILLIAM AITON.

PREFACE.

I HAVE long been of opinion, that a book on the causes of endemic, epidemic, and contagious diseases was much wanted, and that he who should execute the task, even with ordinary care and ability, would deserve well of the public. Our knowledge of endemics and epidemics does not seem to have kept pace with that of other branches of medical science, nor have the investigations into the nature of their causes been always conducted on the same principles. This may be one reason why it has not been equally successful; but, besides this, the extent of the subject, the multiplicity of matters its consideration involves, and the numerous difficulties that beset the path of enquiry almost at every step, must likewise be taken into the account. I am not acquainted with any author who has collected all the principal facts known regarding marsh and morbid poisons into a focus, so as to bring them to bear on the most disputed points, nor any one who has even attempted to explain the different phenomena connected with the rise, progress, and decline of epidemic diseases on scientific principles. Many ancient and modern writers have recorded important facts concerning them, but these have generally been obscured by partial statements, tending to

support some favourite theory; and each succeeding speculation will be found to assume something of the aspect and fashion of the time at which it was first promulgated. Hence, the lights which the occult sciences furnished, no sooner vanished in their native darkness, than a crowd of ærial visions arose, and these were gifted with mechanical or chemical powers, according to the taste of the enquirer. For philosophers to descend at once from the heavenly bodies to earthly concerns, or at least to objects nearer the earth, was undoubtedly a great step gained.

The mathematical physicians who *figured* for some time, were succeeded by the chemists, and these again became acid, alkaline, septic, or antiseptic theorists, according to their own particular views or the progress of chemical science at the time they wrote. All this was natural enough, and even praiseworthy, and had they always adopted the mode of inquiry recommended by Bacon, no fault could have been found either with them or their theories; but fancy was not to be thus fettered. Accordingly several, even of the most learned of our modern writers, prefer the road of utter darkness to one provided with many lights, and on which many foot-marks may be found to point out the right course.

I have chosen the latter mode of procedure, convinced that it is better to creep along the right path, than to fly on that which is wrong. During the last five and twenty years, I have endeavoured to travel this weary road. I have examined the causes of disease in every climate, and in the different quarters of the world. I have watched them in public and in

private life, and in almost every rank and condition of society, and I have carefully examined them in the writings of almost all the best authors, ancient and modern. What use I have made of these advantages is a different question.

In the road of enquiry, I have followed closely the footsteps of those I believed to be the best guides and pioneers, leaving their tract only where they appeared to tread on slippery ground. At the cross-roads I have read the different sign-posts, and tried to profit by every beacon; where even these failed to direct me. I have not scrupled to lay hold of any object that seemed to invite my grasp. On some points which have been long and much disputed, I have thought it best to give the evidence adduced by our best writers. The authorities I have given, will have more weight with the public than any thing derived from my own experience.

Those who have not had opportunities of making themselves acquainted with the history of epidemic diseases, may blame me for laying too little stress on the influence of the atmosphere; but, when it is considered how often mankind have been misled by wrong theories concerning it, and how little statistical medicine has been regarded by many even of our best authors on epidemic diseases, I hope it will be conceded, that I have given to both doctrines a full and fair examination.

There is scarcely a great epidemic, plague, typhus, or yellow fever on record, which was not attributed, at its commencement, chiefly to some known or hidden quality of the atmosphere, while the doctrine of

contagion and importation was rejected as a vulgar belief, for the want of what is called direct evidence; every wind that prevailed, and every accidental change of weather which happened at the time, were not only eagerly laid hold of by those who believed they knew more about the matter than their fellow mortals, but were at once held forth by them as the most convincing evidence. The fatal consequences of such vague and conjectural notions were just what might have been expected. Before the real causes of the evil became manifest to all unprejudiced persons, the diseases in most instances gained such ground that all human efforts to stop their progress proved unavailing, and thus the prejudices of the ignorant as to the efficacy of human means of prevention were sure of being strengthened.

The injurious tendency of wrong notions regarding the general atmosphere has not been confined to great epidemics. This heart-reviving fluid has been blamed for many of the evils occurring in private life; thus, the fashionable lady who injures her health and her looks by late hours and crowded assemblies, the pampered profligate who derives his illness from his own dissipation, the bon-vivant who indulges himself into gout, the delicate female starved into a consumption by improper clothing and food, with many more unhappy and unfortunate invalids, have all recourse to the general atmosphere, as affording an easy and ready solution of every pathological difficulty.

Let me, therefore, appeal to the good sense of the public on the subject of cholera, and let me conjure them not to throw away the lessons afforded by past

experience. Those who peruse the flimsy productions of the newspaper press on the subject of its atmospheric origin, will not blame me for over-zeal, if they calmly consider the principles on which such theories are founded. 1st. We are told that *undue proportions of the gases composing the atmosphere* are the causes of cholera, though the same quantity of each be found in the air of different countries and at different heights from the earth's surface. 2nd. *Cholera depends upon certain winds;* yet it has often been confined for a time to a single spot of the countries it visited. When it does break out, it does not spread like influenza over a whole community, but is confined at first to one individual, to one room, to one house, to one street, to one town; it then goes to another place to observe a similar mode of procedure. In shifting its residence, it progresses with equal facility contrary to the wind as it does with it, and it continues its ravages in a place during every kind of wind as when there is no wind. 3rd. *It arises from climate and season,* although it breaks out in different places at uncertain periods, and in all climates and seasons alike. Vast tracts of the inhabited parts of the globe have not yet been visited, although they possess the climate and seasons supposed to be favourable to its existence. 4th. *Cholera derives its origin from certain soils;* yet marshy, sandy, and clay soils, in every condition of moisture and dryness, with shingle, rich loam, poor gravel and hard rock, produce it. In other words, places possessing every kind of soil and places having no soil. 5th. *It owes its origin to vegetables;* yet it rages in ships at sea, where men die from the want of

vegetables. 6th. *Certain localities produce it*, although it marches with seeming indifference in cultivated and in barren places, over mountainous districts the same as on level plains, over water as on dry land, and a great proportion of the civilized world has fallen under its malign influence. Lastly—*Cholera is guided by the electric fluid;* yet its rapidity in travelling, never exceeds that of human intercourse in the countries it visits. Such is a synopsis of the atmospheric theory of cholera. To give credence to such a theory, is to believe in the existence of *something* arising from *nothing*, yet a being independent of *everything*. On the other hand, if cholera be compared with other contagious epidemics, an account of which I have given in the following pages—the reader will be the better able to form a correct notion regarding its nature and origin.

The matter in the following pages was intended to form part of a larger work on the Principles of Health, in which the causes of diseases and their prevention were to be fully considered; but, as I thought the part now published might be useful to the public in the present crisis, I have chosen to print it in separate dissertations, rather than delay till the whole was ready for the press. The part on cholera was written several weeks ago. With regard to style, I have to crave indulgence from the public, never having before written for the press. The manuscript was chiefly written amidst the noise and bustle of a man-of-war, whilst I was on service on the Mediterranean Sea, but from materials previously collected. Here, I regret to say, I had not access to the works of the authors

quoted, nor much convenience for making the best use of my notes. I have annexed a full table of contents, with a view of directing the student to what I consider to be the best sources for obtaining further information, as also to acknowledge my obligations to the different living authors from whose writings I have extracted much important matter. I have had occasion to differ in opinion from some, whose character for learning and talent, must ever stand high with the profession; I shall be sorry if my motives for disregarding their authority on some occasions be misconstrued.

Note.—It is necessary to mention that the *cholera*, spoken of at page 25 of the Fifth Dissertation, is the usual form of the disease which is generally acknowledged to be a distemper arising chiefly from high temperature, and not the contagious cholera. I beg to refer those who may wish to see a fuller explanation of the principles which I profess to have followed in the present work, to my concluding remarks at page 212.

ERRATA.

MALARIA:—Page 47, line 14, *for* common, *read* cannon shot.

CONTAGION:—Page 7, line 7, *for* Sinæpeus, *read* Sinopæus.
13, 3, *for* than in others, *read* than others.
20, 12, *for* than to others, *read* than others.
97, in foot note, *for* fallacious, *read* deceptive.
124, 9, *for* Satch, *read* Sætch.
181, line 31, *for* chink, *read* drink.
188, 17, *for* phlagiston, *read* phlogiston.
192, 33, *for* a fomites, *read* a fomes.
199, 32, *for* Magendi, *read* Magendie.
for Breschet, *read* Bresslet.