

**A treatise on the plague : more especially on the police management of that disease : illustrated by the plan of operations successfully carried into effect in the late plague of Corfu : with hints on quarantine / by A. White.**

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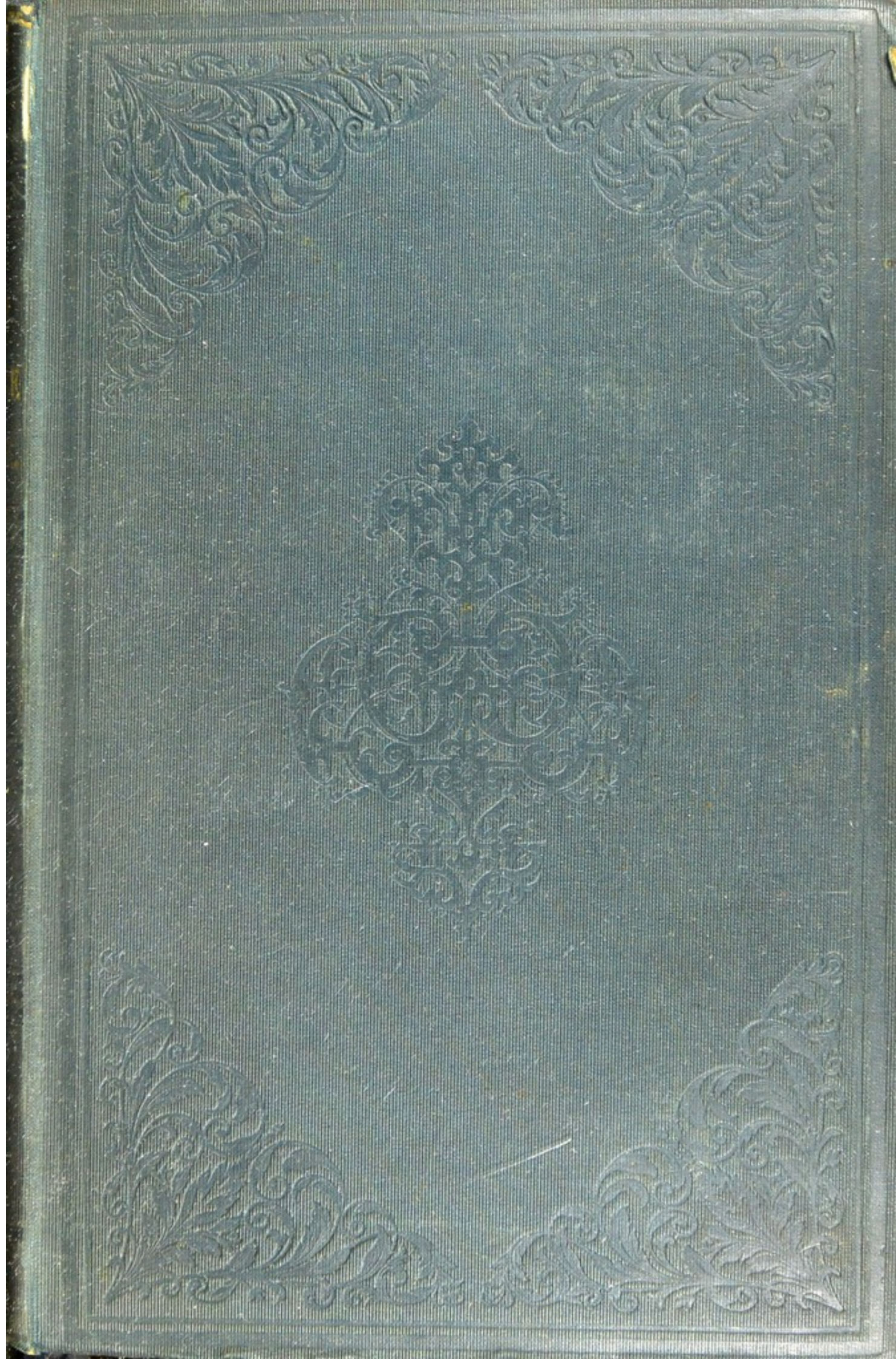
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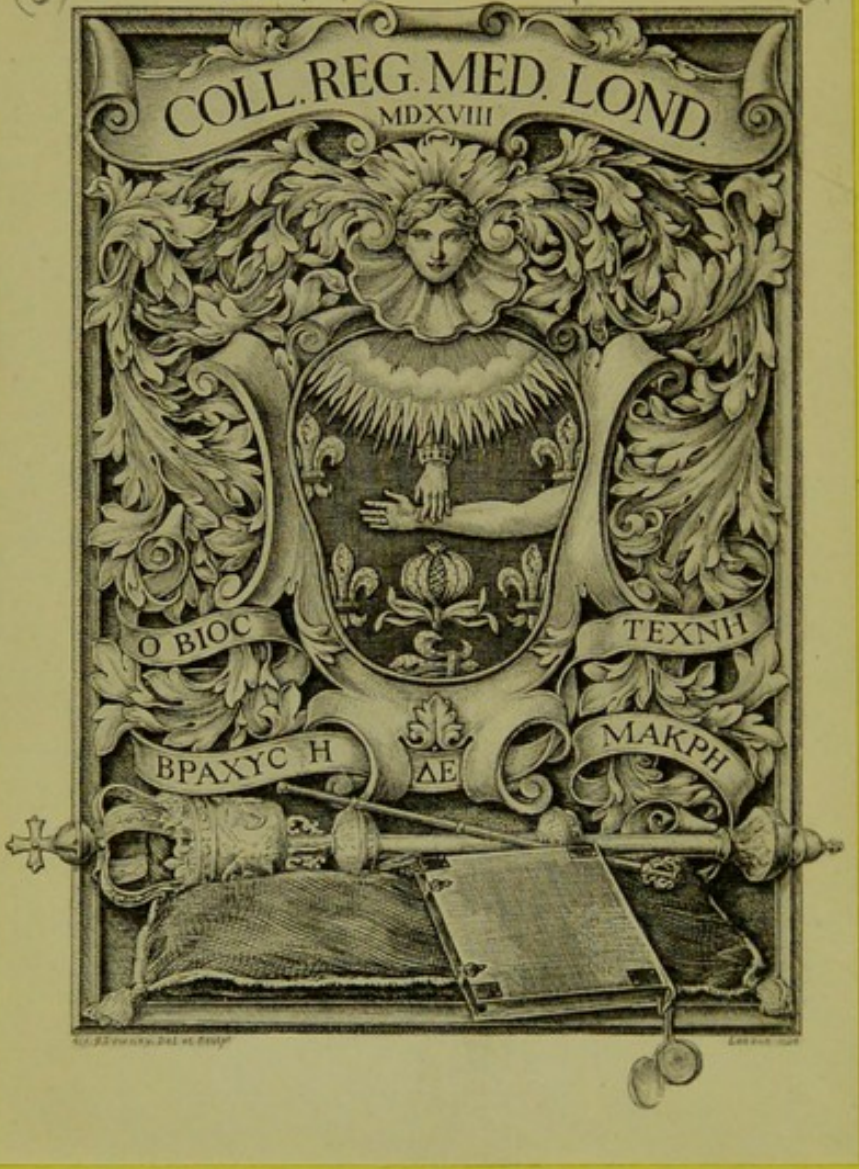
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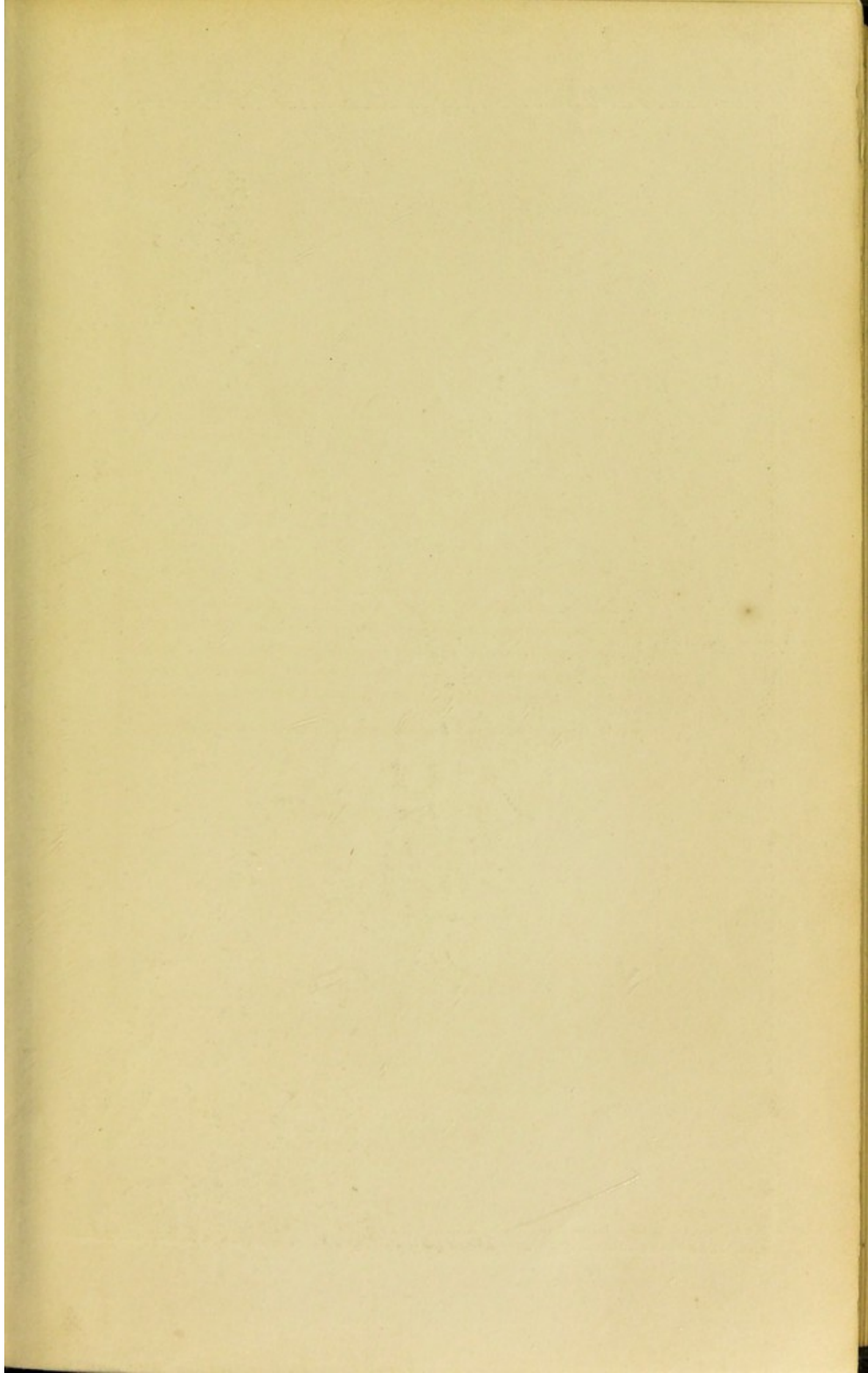
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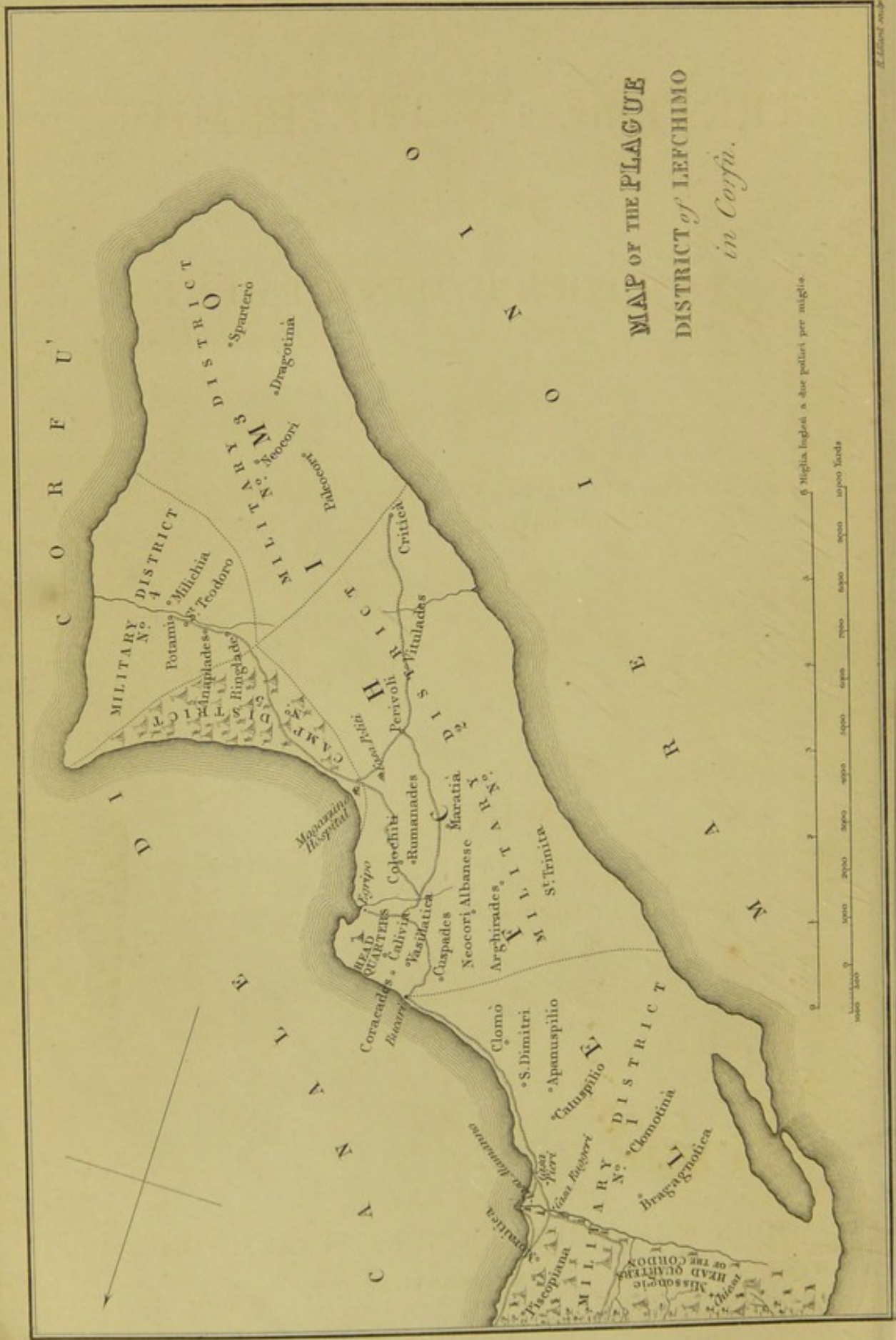
TREATISE ON THE PLAGUE.

“ La peste, uno dei piu terribili mali che possano affliggere il genere umano, benché non sia propriamente lo stesso che il contagio, pure suole aver fra noi il nome di contagio per che toccari i corpi, o l'aria degli appestati, o le merci, o robe, loro, se ne infettano i sani, con piu forza e strage, che non accade in altri morbi epidemici e attaccatici—il perche contagio suo l'anche appellarsi la peste.”—MURATORI DELLA PESTE.

“ Pallida mors equo pulsat pede pauperum tabernas regumque turres.”—VIRGIL.







MAP OF THE PLAGUE  
DISTRICT OF LEFCHIMO  
*in Corfu.*

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# TREATISE ON THE PLAGUE:

MORE ESPECIALLY ON

## THE POLICE MANAGEMENT

OF

## THAT DISEASE.

ILLUSTRATED BY THE PLAN OF OPERATIONS SUCCESSFULLY  
CARRIED INTO EFFECT IN THE LATE

Plague of Corfu.

WITH HINTS ON QUARANTINE.

BY

A. WHITE, M.D.

DEPUTY INSPECTOR-GENERAL OF MILITARY HOSPITALS, AND LATE SUPER-  
INTENDENT OF THE PLAGUE IN CORFU,  
AND FELLOW OF THE ROYAL COLLEGE OF SURGEONS IN LONDON.



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TO

SIR JAMES M'GRIGOR, BART.

DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT,  
&c. &c. &c.

---

SIR,

I HAVE the honour to dedicate to you the following Work on the Plague, which treats more especially of that which prevailed in Corfu in 1816, when the Plague District of Lefchimo was placed under my superintendence by the late General Sir Thomas Maitland, then Lord High Commissioner of the Ionian Islands.

And I do this with more pleasure, because you are the oldest of my medico-military acquaintances under whom I served, many years since, in Egypt, on the same duty.

At that time, almost all the medical officers of the Egyptian army were of opinion that Plague was a contagious disease, and the *fomes* of it capable of being transported from place to place.

The Plague in Corfu has, I think, sufficiently proved the contagious character of this disease, from its first introduction into that island, to its final suppression: since which period no plague has appeared there.

I have also demonstrated what may be achieved, under very trying and discouraging circumstances, by an efficient, well-

regulated Police Establishment, in forcibly crushing, and finally extinguishing, in a very short time, this formidable malady, which seems to carry with it a peculiarity of character that renders it distinct from all other diseases with which we are acquainted.

In the Plague which appeared in Cephalonia, about the same time, and the introduction of which was attributed to the same cause—viz., smuggling,—a similar vigorous management by police restraint was adopted, and with equally happy effects.

That the Laws of Quarantine require modification, I admit; but that they should be abrogated and overturned with impunity, as useless, I cannot too strongly deprecate; for my strongest conviction is, that in doing away with these laws altogether, our commerce would be restricted rather than enlarged, and this sad calamity would, sooner or later, find its way to our shores.

THE AUTHOR.

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## P R E F A C E.

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I HAD already committed to writing the following observations on the plague, without having fully made up my mind to publish them, when a work appeared on the same subject by Mr. Tully, surgeon to the forces; in which he treats, like myself, of the particular plague of Corfu. On perusing his work, I could not help thinking it defective in two essential points,—namely, in the description of the extension of the calamity from place to place, and in the detail of the police treatment adopted on the occasion. The latter defect was probably owing to his want of official documents, which, from the time I took the charge, were all in my possession; and it was impossible for any one from memory alone to give in a regularly detailed form the proceedings which took place in Lefchimo.

Had Mr. Tully's work appeared to me sufficiently explicit on the two important points I have mentioned, it is not probable that my observations on the same identical subject would have ever seen the light, especially as we perfectly agree in the opinion, that the plague is a disease depending on contagion alone, and as we both equally appreciate the advantages to be derived from a well organized and efficient police, in not only arresting the progress of the disorder, but in suppressing, and finally extinguishing it: on which last point I have dilated more than is usually done in a work of this kind, from my full

conviction that more is to be achieved by proper police towards diminishing and subduing the plague, than has ever yet been done by any medical treatment.

But while this imperfection in the details of Mr. Tully's work operated as a powerful inducement with me to give my observations to the public, from the minuteness of which, at least, I presume some benefit may be derived in the future management of plague, another somewhat singular, though evidently a designed omission in the same work, in some degree compels me, however reluctantly, to obtrude myself upon the public as an author. Mr. Tully, in his work, has studiously concealed the circumstance of his having but acted under my orders for the greater part of the time in the plague of Lefchimo; and has carefully avoided so much as once mentioning my name, from first to last. Whatever were his motives for making such an omission, no one, I believe, will ascribe them either to modesty or candour.

Far be it from me to detract from Mr. Tully's merits in the plague service. On the contrary, I feel much pleasure in acknowledging him to have been a most zealous and active officer. It is, however, but justice to others, as well as myself, to state what really was the position he held.

In order to place Mr. Tully's merits and claims in their proper light,—a subject which I should not have thought of meddling with, had I not felt it incumbent upon me to do so in self-defence,—it is necessary for me to say, that on my arrival in Corfu with Major-General Sir Charles Phillips, after the army of the Mediterranean had been broken up in the month of March, 1816, his Excellency Sir Thomas Maitland, the Lord High Commissioner of the Ionian Islands, appointed Major-General Phillips to the supreme direction of the plague duties, and myself to the superintendence of the plague district; consequently, to the immediate charge of the executive within that district: and in a few days afterwards, I was put in the general orders of the army as such, as will be seen by an extract from

them, signed by Lieut.-Colonel Jordan, Deputy Adjutant General, a copy of which I subjoin:—

(LETTER I.)

GENERAL ORDER, No. 8.

Adjutant-General's Office,  
Corfu, March 23, 1816.

Staff-Surgeon White will repair to Egripos, to take charge of the plague district.

(Signed)

JOHN JORDAN,  
Dep. Adj. Gen.

In virtue of this, I was of course to supersede Mr. Tully in every charge and responsibility; and, in fact, I did so from the moment I went down to the plague district. This was not done in a corner, but in the face of the whole army, and indeed of the whole population of the island. Mr. Tully knows full well that his authority ceased from the time I went down to Lefchimo, which was a few days after my appointment: and, in taking that charge upon me, he also knows that I became the only organ of correspondence with the government relative to all matters of plague.

It is not for me to enter upon the reasons which induced his Excellency General Sir Thomas Maitland to supersede Mr. Tully and to appoint me to the charge; but had they not been good and substantial ones, I am very sure I should not only not have been called upon, but that I should not have been permitted to interfere in any way, even had I wished to do so.

Yet, with a knowledge of these facts, and knowing also that, on whatever part of the service he was detached, it was his duty to report to me, as his superior, every transaction,—which, had he failed to do, must have been considered a breach of military orders, for which he would have been held responsible,—he makes it appear that he was the only individual in authority on the occasion.

It has no doubt frequently happened that superior officers have taken credit to themselves for the exertions of those serving under them, without bestowing on the individuals



who assisted them that commendation to which they were fairly entitled; but I believe it is very uncommon for a writer to enter largely on a subject, and that regarding an important service, on which he had been employed, without once mentioning the name of the superior officer under whom he was serving for the greater part of the time, and to whom he was almost daily transmitting his reports.

In both my public and private dispatches, I always spoke favourably of Mr. Tully; and I think he will not deny that, during the time he served under my orders, I made his duty as pleasant to him as any duty of the kind could well be made. As the omission of my name in his work is calculated to mislead certain individuals whose esteem I value, and to affect my character with the army medical board, I owe it to myself in particular, and to the medical officers employed with me in general, to declare that all concerned were uncommonly zealous and active in the suppression of the malady, and that a degree of unanimity, together with the most unremitting and indefatigable exertion, pervaded all ranks, which, perhaps, has seldom been equalled on a similar occasion, and could not well be surpassed.

I trust, therefore, that it will not be construed into egotism on my part merely to mention, that my own personal exertions have been commended by the Lord High Commissioner; by Major-General Sir Charles Phillips, under whose immediate orders I served; and by the Senate of Corfu; as also that the government has in some degree rewarded me for them, by confirming to me, at the recommendation of the Director-General, a step of promotion I formerly held at the fall of Genoa, on which occasion I was employed as the second medical officer on that service. I here subjoin the letters referred to.

## (LETTER II.)

*Copy of a Letter from Sir Frederick Hankey, public and private Secretary to the late Lieut.-General Sir Thomas Maitland, Lord High Commissioner of the Ionian States, to Dr. A. White, Superintendent of the Plague in Corfu.*

Brighton, 3rd December, 1841.

DEAR SIR,—I have received your letter, in which you request me to bear testimony in respect to your services in the plague of Corfu in 1816.

I have retired from public service; and therefore, generally speaking, abstain from meddling with public affairs; nevertheless, in *justice* to you, I will do what you ask; and having been the public and private Secretary to the late Lieut.-General Sir Thomas Maitland during the whole period of his administration, as the Lord High Commissioner in the Ionian States, I trust that I shall not be deemed presumptuous in saying what follows in the matter in question.

Sir Thomas Maitland landed in Corfu in February, 1816. He was aware that previously, for two or three months, there had existed in the district of Lefchimo, in the south-eastern part of the island, a disease: it was called fever. However, Sir Thomas having examined into details, at once pronounced it to be *plague*, and made proclamation accordingly.

He had great experience in matters of plague. He was, as you know, a man of singular firmness, and, I will venture to say, more fitted in every respect and for the emergency than almost any other man in the world. He proceeded on the principle that plague was only to be checked by preventing contact, and he cut off all communication between the *infected district* and the city of Corfu, by the active agency of the troops; and he then adopted the most efficient measures in the district of Lefchimo to extirpate the disease; all founded on the same principle of preventing contact. The result was, that he saved the island; the plague never appeared in the city of Corfu, and was soon extinguished in the infected district, out of which it never escaped. In that district, you were employed as the principal medical *officer*; and I well know that *he* was perfectly satisfied with your conduct throughout. The mortality was great; for the malady was, as I have said already, plague in its most violent form. But it was conquered by the establishment of *infected* and *suspected camps*, the whole of which were under your personal care, and your duties were harassing in the greatest degree.

As soon as the plague began to subside, Sir Thomas quitted Corfu, being called to Malta by public business; but he left a most active and able officer at Corfu, Major-General (now Sir Charles) Phillips, who fulfilled the duty delegated to him by Sir Thomas most completely.

I am sure Sir Charles would not withhold his testimony of your valuable services in the plague of Corfu, which would have more weight than mine.

I remain, dear sir, yours very truly,

(Signed)

FRED. HANKEY.

Dr. A. White,  
Deputy Inspector of Hospitals, London.

## (LETTER III.)

*Letter from Major-General Phillips, on the issue of the Proclamation for Free Pratique betwixt the District of Lefchimo and the rest of the Island of Corfu.*

Corfu, 26th July, 1816.

SIR,—It is with infinite pleasure I enclose the Proclamation announcing the general pratique given to the district of Lefchimo with the whole of the Island of Corfu.

You will perceive that the unlimited and free intercourse commences to-morrow, the 27th instant.

You will distribute the enclosed copies of the Proclamation, and announce this most joyful news to all concerned.

I most heartily congratulate you on having realized this happy period, and of having terminated your tedious and most fatiguing duties with so much credit to yourself, and with such serious and important advantages to the community at large of these islands.

I remain, Sir,

Your most obedient servant,

(Signed)

C. PHILLIPS, Major-General.

P.S. You will report to Lieut.-Colonel Jordan, Deputy - Adjutant - General, to-morrow, and you will arrange with him any duties you may have to perform, as well as the time you can give up the charge you have been entrusted with in the district of Lefchimo.

Boats will be sent down this evening to bring up and to tow the several persons in quarantine. Be very careful that they are not mixed, as they are to be kept exactly according to their respective dates in the Lazaretto for some days.\*

To A. White, Esq., &c. &c. &c.,  
Superintending the plague district of Lefchimo.

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\* Note by the Author.—As those persons consisted of a corps of expurgators from Malta, some soldiers belonging to foreign regiments in our service about to be disbanded, felons who had been employed in various plague duties, and others, it was not considered expedient that they should be let loose at once in the city, until the government had decided, and arrangements were made, as to their final disposal.

## (LETTER IV.)

*Copy of a Letter of Thanks from the President of the Senate of Corfu to Staff-Surgeon Andrew White, for his services in the Plague of Lefchimo.*

Corfu, 13th February, 1817.

SIR,—The Senate of Corfu having learned your departure from this place, requests you will be so kind as to accept the testimony of its most sincere regret for your going away, and its satisfaction for the zeal and attachment which you have always showed in your public functions, as superintendent of the district of Lefchimo, named to this important charge by his Excellency the Lord High Commissioner, Sir Thomas Maitland, during the plague in that district.

In rendering justice to your merit, I declare to you that your services have been of the greatest utility, as well for the relief of the human suffering kind, as for the absolute extirpation of the dreadful plague which afflicted this island during six months: adding to your glory, and that of the officers under your orders, that the measures transmitted to you by his Excellency had, in their execution, the most sudden and happy success, which was to be expected only from your prudence and your indefatigable activity.

I have the honour to express to you the sentiments of my high esteem and consideration.

The President of the Senate of Corfu,

(Signed) B. THEOTOKY.

Mr. White, Staff Surgeon, &c. &c. &c.  
Corfu.

## (LETTER V.)

*Copy of a Letter from the President of the Senate of Corfu to Dr. White, for his service in the Plague, and thanking him also for his having settled the compensation accounts for the loss of property during the Plague.*

Corfu, à 7 Decembre, 1816.

MONSIEUR LE DOCTEUR,—J'ai reçu la lettre que vous m'avez fait l'honneur de m'écrire, datée du 3 de ce moi, avec toutes les pièces que vous avez bien voulu me faire parvenir.

Le Senat vous exprime les sentimens les plus distinguées de sa reconnaissance pour la sollicitude que vous avez mise à repondre aux soins dont il vous a prié de vous charger.

Votre exactitude dans les exercices de cette dernière commission\* est égale à l'utilité qui a resulté au Canton de Lefchimo à la faveur de vos zélés services.

Agreez, je vous prie, Monsieur le Docteur, les sinceres assurances de l'estime et du respect avec laquelle j'ai l'honneur d'être,

Monsieur le Docteur,

Votre très humble et très obeissant serviteur,

(Signed) B. THEOTOKY,

President du Senat de Corfu.

A Monsieur Monsieur le Docteur White,  
Chirurgien de l'Etat Major, &c. &c. &c., à Corfu.

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\* Settling the plague compensation accounts.—A. W.

Any one must see, on reading Mr. Tully's work, that he wishes it to be understood that he had been the only medium of correspondence with the government of Corfu, from first to last; and, in order to fix this persuasion on the minds of his readers, he quotes, in his note, page 122, a portion of a letter from General Phillips (the only one), and that, too, but of a demi-official nature, which he received during the whole time he remained in the district after my arrival there. This letter was on a particular subject immediately concerning himself; and I think was enclosed in my dispatches, and transmitted by me to him. As it concerned only himself, in order to save time, he was ordered by me to reply to it to the General directly, which he accordingly did.

But, in order to prove that I was not in the position which Mr. Tully, from his silence respecting me, would lead one to believe, I may mention, that I received from the General upwards of 130 public and private dispatches, all, with one exception, written by his own hand, during the time I was in the plague district, and all of which I have now in my possession; and that during the same period, my letters to him alone, of which I have kept copies, all in my own hand-writing, amount to 129, independent of almost daily orders and instructions, which I had to send throughout the district; and of my having to attend to all reports which required immediate notice. Even all this was but a small part of the duties I had to perform; for I was obliged to have a watchful eye on the whole of the executive; to attend to the health of the troops, and the wants of the inhabitants; to make my tours of inspection; to overlook the expurgation; and ascertain, from ocular demonstration, everything that was going on, in order to form my reports against a certain hour, for the information of the government; to examine in person every house, hole, and corner where the plague had appeared throughout the whole of the upper district, with the exception of the village of Critica; and various other duties, which it were needless to detail.

It is true, that after Mr. Tully was detached to the lower district, it became unnecessary for me to go down there so often as I should otherwise have been obliged to do. But still, his reports to me, and the state of the camps, rendered it incumbent upon me to go thither frequently, and almost daily, to inspect, at least, the camps. I may add, that Mr. Tully, in looking after the lower district, had nothing else to do but to transmit the report of the proceedings to me.

I am led to make this last remark, from several passages in his book, particularly that in page 154. "Having," says he, "upon the extinction of the plague in Corfu, performed, in common with the inhabitants of Lefchimo, forty days of foul quarantine; and after several days of our clean quarantine had elapsed, I was visiting the troops composing the principal *cordon*, when I was met by Major-General Sir Charles Phillips," &c.

Now, the fact is, Mr. Tully had nothing whatever to do with the *cordon*; which was regularly inspected by myself once or twice a week, according as I deemed it necessary, or as my reports from thence demanded. It is, however, of little consequence whether he or I inspected that post; nor, indeed, should I have ever noticed the circumstance, were it not that he everywhere wishes to make it appear that he alone had been doing everything, while I remained quite useless, though his immediate superior, and carefully looking after everything without reference to him.

I am really sorry that Mr. Tully, whom I otherwise esteem, and who, I am sure, had never any reason to be dissatisfied with my conduct towards him, should have so committed himself in the opinion of all those acquainted with the subject, by making so unmerited and insidious, or, to say the least of it, such a negative attack upon me; which, however, I ascribe not to any personal ill-will I bore towards him,—for that I should think impossible,—but to that love of fame which, in its eagerness to snatch its object, stoops not to consider the means of

fairly securing it. His conduct, however, in this respect, is to me the more surprising, as he must have been aware that there is more than one pretender to fame and laurels for services in the plague of Lefchimo, who, notwithstanding, in point of fact, had little or nothing to do with it.\*

It may here be proper to observe, that one cannot be too careful and circumspect in entering on correspondence relative to the plague during the prevalence of the calamity. General Phillips was so sensible of the impropriety of keeping up any such gossiping correspondence at Malta, through fear that misrepresentations of any occurrences that took place should go abroad, so as to interrupt the public tranquillity, by exciting unnecessary or false alarms upon the subject, or perhaps affect our commerce over the whole of the Mediterranean, that one of the particular injunctions I received from him on my taking charge of the district, was to avoid all such correspondence, and to confine my reports of all occurrences to himself alone. It was chiefly, or rather, I may say, entirely a compliance with this order which prevented me from communicating so freely with the medical board in London and the senior medical officer in Corfu as I otherwise should have considered it my duty to have done. But it would also have been quite impossible for me to have sent duplicates and triplicates of my daily dispatches to the General and to other quarters at the same time. Even if I had not been prohibited by the cause I have mentioned above, I had not time to do so, as I had no clerk on whom I could sufficiently depend for assistance. Every dispatch to government, and every order I gave, was written and recorded by my own hand; and it was as much as I could do to get them ready against the time they were called for, as every one in the city was anxious for the reports from Lefchimo,

\* I allude here to a gentleman who held a temporary appointment in the Health Office at Corfu, but who never even entered the plague district until all quarantine restrictions were removed. He, too, absurdly called upon me to make special reports to him, although I was much his senior, and altogether very differently situated.

to know what was going on there at that momentous period. This I once and again represented to my superior officer, Deputy-Inspector Portious, adding, that the plan of operations going on was *separation, segregation, and subsequent purification*, and that General Phillips would always show him my reports. I therefore beg to offer this as an apology to the Army Medical Board and the senior medical officer then in Corfu, for my apparent neglect of duty, as well as to point out and explain the peculiarity of my situation. Indeed, I was under the necessity of sending the few letters which I wrote home from Lefchimo—all, except my official dispatches—open, for the purpose of fumigation, and of course they were thus liable to be read by those who had nothing whatever to do with their contents.

It is necessary I should mention that the account given of the march of the plague in Chap. VII. of Part II. does not apply to what has actually happened in any one particular plague; for no two plagues were ever precisely alike, either in their extension, or in the means adopted for their suppression. That article is framed from occurrences which happened in the plagues of Moscow, Malta, Corfu, and other places, and is here detailed to show how plague extends itself, and to point out the difficulties which frequently start up at the commencement of the calamity, which it is proper to be aware of, and as much as possible to guard against.

In a work of so homogeneous a nature as this is, it is almost impossible to avoid all repetition; I have, however, endeavoured to do so to the utmost of my power.

The plan of operations adopted for the suppression and extinction of the plague in Lefchimo may not be precisely the same which other plagues may require, although the general principles which I have detailed *must always be the same, wherever plague appears*. Partial deviation from it may be necessary, from local causes, moral character, and other circumstances, which it were needless here to enlarge upon.



It is pleasing, withal, to reflect, that a calamity so dreadful in its consequences, and so extensive in its ravages, may, by proper management, not only be kept within bounds, but even be forcibly extinguished, under the most aggravated circumstances; and it would now be discreditable to allow it to extend itself, as it has formerly done, when measures of restraint were not so thoroughly understood as they now are.

Should what I have here thrown together on the subject tend in any degree to prevent or lessen the sufferings of my fellow-creatures from this most awful of known diseases, I shall account my object gained, and my labour fully compensated.

## INTRODUCTORY DISCOURSE.

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AT a time when the doctrine of the contagion of plague has in a high degree attracted the attention of her Majesty's government, and when an opinion respecting its nature and qualities, which I presume to term erroneous, seems to have considerable weight, and might, if adopted and acted upon, lead to incalculable distress, and affect, in a way to be deprecated, our political situation, I think it the duty of every one who has seen this terrible disease, and paid attention to it, to give publicity to his experience on the subject. It is indeed the duty of every member of the medical profession to communicate to society whatever discoveries, improvements, and useful observations he has been able to make in all the branches of his science; but more particularly on a subject of such vital importance to mankind as the plague.

Such are the motives by which I am actuated in laying before the public the following pages; and in venturing to differ in opinion from some eminent and enlightened individuals, I beg to be understood, that I only do so from the fullest conviction in my own mind of the truth of the doctrine which I advocate, and of the danger to be apprehended from the adoption of contrary opinions on the subject.

I am far from pretending to have made any discoveries in the plague, or any new improvements in its medical treatment; but I am so thoroughly convinced of the advantages which resulted from the plan of management adopted during the term of the duration

of the plague in the island of Corfu in 1816, when the infected district of Lefehimo was placed under my superintendence, that I think I should be deficient in my duty were I not to give it publicity:\* and, without arrogating anything to myself, or the military and medical officers employed on that occasion, I may be permitted to say, that few plagues were attended with more aggravated circumstances (although the mortality was not very considerable from the time I was nominated to the charge), or more happy in the results, than the one in the district of Lefehimo: and in the treatment of it an example is given, and a striking proof afforded, of the benefit accruing from a well-regulated and vigorous police; which, I trust, will be again adopted should ever that dreadful scourge hereafter make its appearance amongst us, or break out again in any of our colonies.

I am of opinion that the plague is a highly contagious disease; and I ground this opinion not only on what I conceive to be respectable authority both ancient and modern, but also on my own experience, and undoubted facts.†

The plague being a disease which has appeared in most countries, at some time or other, which has lately shown itself in more than one of our islands in the Mediterranean, adjoining the Turkish dominions, and which may again, as it has formerly done, find its way into Britain, the consideration of this important subject at the present moment may not be altogether without its use, notwithstanding that much has already been written

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\* It is unnecessary here to mention the reasons which prevented this work from appearing before.

† During the time I was serving in the Mediterranean, from 1811 to 1817, the plague broke out in Calabria, Malta, Corfu, and Cephalonia; and it was not doubted that it was imported by means of some evasion of the laws of health. I take no notice of the Turkish dominions and Egypt, where it frequently exists, with more or less fatality. No general plague has occurred in any of our possessions there since that of Corfu. I have heard that individual cases have appeared in the Lazarettos since that time, which, however, were promptly suppressed, as they always can be, by proper management.

on it; and I think it the more necessary to enter on this matter, and give my ideas concerning it, as some doubts seem still to be entertained whether, under any circumstances, this awful malady could be imported into Great Britain, or propagated in our climate; some denying that the true Levant plague ever existed, or could exist, in this country (vide the Parliamentary Report, pp. 72—74); and others proclaiming in loud terms, not only the inutility of the quarantine laws, but the great cruelty and monstrous absurdity of all such restrictions. When, therefore, such dangerous opinions as these are attempted to be promulgated, I think it necessary that something should be done by way of counteracting them, and of guarding society against adopting such doctrine, as it is very easy to foresee the dreadful effects they might have, and the direful consequences that would result from an abolition of the quarantine laws, were such sentiments to gain the ascendancy, and obtain the credence of the executive government.

With regard to the first assertion—namely, that the true Levant plague was never in England—I believe there are very few who have read the history of the plague which overwhelmed London in 1665-66, and who have seen those of more modern times, who will attempt to question their identity: and, with regard to the latter, if it can be proved to be an imported disease, and propagated both by persons and goods,—which I think I shall be able to prove,—it follows, I should think, as a matter of course, that every possible precaution ought to be taken, both to prevent its introduction and its extension, if unfortunately it should happen to invade any part of our dominions.

It fell to my lot to serve on the duty of the plague in Egypt in 1802, when I was attached to the Indian army. The disease had attacked that army in 1801, when it was encamped at El Hamet, on the banks of the Nile. On the breaking out of the disease, the assistant-surgeons and hospital mates doing duty with that army were called together, and it was determined that lots should be drawn by them, and that each officer should

serve in his turn according to the number he drew. I was not called upon in this particular service till the February following, when it was reported at head-quarters by Major Falconer, the then commissary-general of the Indian army, that the plague had made its appearance in his department, which was stationed at Rachmanie, on the Nile.

Before the army was moved down from El Hamet to garrison Alexandria, the disease had got into the second battalion of the seventh regiment of Native Infantry, and many were falling victims to it, so that it was not considered prudent to remove that battalion with the rest of the army.

I was at this time in charge of the medical stores of the army, which I was to bring down to Alexandria; but being encamped close to the regiment, and in the constant habit of seeing the men, I had an opportunity of noticing the disease which was making such havoc among them, although I had no immediate charge of them; and I then saw three, four, and sometimes five of the men carried to the pest-hospital in a day. Nor did it unfrequently happen, that some of them were found to be dead before they reached the hospital, although their distance from it was scarcely half a mile. The men were always sent to the hospital the moment the decided symptoms of plague appeared: yet they were unable on some occasions to bear the trifling movement to which they were subjected in their removal thither. I confess, I was much surprised at the astonishing rapidity with which this destructive enemy of the human race carried off its victims.

About this time, a Doctor Whyte, who, I understood, had come to the Levant as a volunteer physician in the suite of the Earl of Elgin, then our ambassador at the Porte, wished to be employed in the pest-hospitals of the army, and to make experiments on the disease, which he considered to be neither contagious, nor attended with danger, but dependent on *plethora*, particularly of the vessels of the head. After some time, his services were accepted by General Baird, and he was allowed

to do duty in the pest-hospital at El Hamet. He, however, had not been long in it when he was attacked by the disease, and he fell a sacrifice to his own rashness, in the pest-house at Rosetta, after his removal from El Hamet.

The disease was at this time in the city of Alexandria, but not in such a violent degree as to excite much sensation among the inhabitants, who are so often accustomed to its visitations. It occurred occasionally among our troops also; however, by prompt measures in removing the sick to the hospital, and placing those to whom communication with the impested could be traced, under quarantine restraint, while the troops among whom it had appeared frequently changed quarters, the disease was pretty well kept under.

The report from the commissary-general having arrived at head-quarters, stating that the disease had got among the Indians attached to his department, who were employed in collecting the supplies for the army, that some had already died of it, and that others appeared to be very ill, I was immediately ordered by Sir James McGregor, then the superintending surgeon of the Indian army, to proceed to Rachmanie on that duty. An escort of the 26th Dragoons was ordered to accompany me, to protect me from the Bedouin Arabs, who were sometimes very troublesome to travellers on the road; and, in less than two hours from the time I received my orders, I quitted Alexandria for this service. I reached Birket, the first military post, that night. The next morning at day-break, as soon as my escort was ready, I proceeded to Daman-hour, and from thence to Rachmanie, which I reached that evening, when I reported myself to Major Falconer.

Being fatigued by the journey, which, I think, was between seventy and eighty miles, and night coming on, it was impossible for me to do anything more than to make inquiry into the cause which induced the Major to make his report. He told me that, as no fresh case had occurred since he had sent the sick away, he was in great hopes that it was only a false alarm, and

that he thought the disease was not plague, but a bad cold, with which the men had been attacked: that all the persons immediately about him appeared to be in perfect health; but that, in the first instance, as a measure of precaution, he had separated those who seemed to him not to be well from the rest, and had removed them and the persons living in the same tents with them, to a small island in the Nile, opposite to his encampment; that he had, a short time before, been down there to make inquiry how they were going on, and that the answer he had received was, that they were all doing very well.

As I was very anxious to know the real state of matters, the next morning, after taking an early breakfast, I myself proposed to go over to see them, in order to satisfy my mind whether the disease was the plague or not; for I could not feel satisfied till that point was fully ascertained. I assured the Major that for the present I would avoid any intercourse with the sick, as I should be again obliged to return to him before I was prepared to commence my duty, should the disease prove to be the plague. To this he readily assented, and furnished me with a boat for that purpose.

On my examining them, I soon discovered that the report was no false alarm, but that it was the true plague which had got amongst them: that two of them were actually dying; and that three Lascars and one woman were very ill with buboes in their arm-pits and groins.

The number of persons thus separated and sent over to this island when I went to examine them was, I think, nineteen in all,—*viz.*, seventeen men and two women, of whom, as I have already said, two were *in articulo mortis*, and three men and one woman were very ill, with violent symptoms of the disease; they, in fact, died in a few days afterwards. The rest seemed to be in health.

Having ascertained beyond all manner of doubt that the disease was the plague, and given some necessary directions to the people, I returned to make my report of the state of matters, and to make some private arrangements preparatory to my per-

manent residence in the island, which I intended should commence the next morning.

On making inquiry as to the state of the health of the town of Rachmanie, near to which the commissariat depôt was established, I found that the plague had been raging there for some time, and that a great many persons were dying of it; that the disease was also in the neighbouring villages; and that it must have been brought to the depôt either by the Arabs employed in bringing the supplies, or perhaps by some of the Indians, who were apt to absent themselves and go prowling about the neighbourhood.

The next morning, early, I commenced my painful duties; and here I may mention, that having been sent off in such a hurry, I had literally nothing, but as I stood, neither personal baggage, medicines, hospital equipment, nor even a servant to attend me, nor hospital servants of any description.

I have much pleasure, however, in acknowledging the disinterested kindness of Major Falconer at this time. He, seeing my unpleasant situation, most handsomely afforded me every assistance in his power, providing me with a tent for myself, some blankets, wine, and also ready-dressed provisions from time to time. He also soon after procured me what, in my situation, was truly invaluable—an Arab boy, as a servant, who had been following the kitchen establishment of General Menou, the commander-in-chief of the French army. Fortunately for me, this youth understood a little French, and also something of cookery. This clever little boy was an inexpressible comfort to me, both as my cook and my interpreter. My patients were all Indians, whose language I could neither speak nor understand. The only hospital servants I had with me during the whole time were two Arabs, who were sent me for the purpose of burying the dead, to assist in removing the tents, and performing other duties; but from my ignorance of their language, I was at a loss to make myself understood by them. My young interpreter, who, I have said, understood a little



French, brought me out of this dilemma. One of the Indians with whom I was now associated spoke the Arabic pretty well; indeed, many of them seemed to pick up that language with considerable facility. When I had any directions to give, I called my boy, and explained to him what I wished to be done. He again translated what I had said to the Indian who understood the Arabic, and this one, in fine, to his companions; so that, after making this round, I felt, comparatively speaking, quite comfortable and happy, in being able to explain what was necessary to be accomplished.

When I had gone over to my island, which was formed by the Nile dividing itself into two branches, I was furnished with a speaking-trumpet, for the purpose of making my communications with Major Falconer; because that branch of the river which intervened between him and me was so broad, that my voice could not be heard at the opposite side, even when the wind was not contrary. I thus began my labours, cut off from all society, except that of the Indians and Arabs mentioned; surrounded by patients actually ill of the plague, some of whom were dying, and by those who, though they seemed at the moment to be in health, I knew, from the promiscuous intercourse which had taken place between them and the others, might every moment be expected to fall sick; at the same time that the calamity was making cruel havoc among the neighbouring villages; without any friend to assist me, should I myself happen to fall sick, or to relieve that depression of spirits and anxiety which, notwithstanding all our endeavours to prevent it, will occasionally affect us.

My first step after my arrival on the spot was to make a minute inspection of the whole, and to separate those who were in any way indisposed from the rest. The persons labouring under positive symptoms of plague I placed in one tent, and those whose cases seemed to me to be doubtful at the moment, in another, with orders that no intercourse whatever should take place between them. The sick-tent I caused to be pitched at

some short distance from my own. The persons who, to all appearance, were in health, I placed in tents close to my own, that they might be more immediately under my inspection, so that I might have a better opportunity of attending to the rigid performance of their quarantine, and of examining their state of health from time to time, to enable me to lay hold of the disease the moment it made its appearance. I explained to them all, in the best manner I could, my reasons for making this separation, and the absolute necessity that there was on their part to act in conformity with my orders for the speedy destruction of the malady. I recommended to them, in the strongest manner I was able, not only that they should have no communication either directly or indirectly with the sick or suspected tents, over which I placed part of those who appeared to be in health as a guard, but I directed, also, that none of the tents should have intercourse one with another. I explained to them the dreadful consequences that would follow if these orders were not strictly obeyed, in which case, most probably, one and all of them would suffer.

Whatever might have been the religious prejudices of these Indians, I have no reason to doubt that my instructions were attended to. Their obedience to military authority, and the deference and respect they generally pay to the commands of an European officer, were quite sufficient to prevent them from disobeying these injunctions; and I do not doubt but that they were most strictly complied with.

Whilst I was occupied with these arrangements, two of my patients in the hospital-tent had died, one or two others were in a dying state, and some of the others were decidedly worse. The supply of medicines, having been sent up in one of the commissariat *germs*, (a kind of boat used on the Nile,) did not arrive till several days after my entering upon this duty. I had, therefore, no medicines to give the sick; and even if I had had all those which I might have judged to be proper, I question much whether any benefit would have been derived

from their exhibition, at least, with several cases in the hospital—with such rapid strides had the malady advanced in its destructive career.

During the period of my residence on this island, I had the most convincing proofs that the plague existed, not only in Rachmanie, but in several of the neighbouring villages, from the dreadful yells of the women, lamenting the loss of their husbands and other relatives; for every morning at daybreak, and at intervals during the day, they rent the air with their shrill and piercing shrieks. I was unable for some time to account for this singular and woeful noise, which, amidst the universal silence that otherwise prevailed, used to awaken me from my slumbers at such early hours, until, on asking my Arab friends, they immediately told me the cause of it. The women, it would seem, in those countries, are accustomed to deplore in this outrageous manner the loss of their husbands and relations; though, considering the ill-usage these poor creatures generally meet with from the men, I could not help thinking that their grief, which showed itself so violent on these occasions, was more feigned than heartfelt and real.

It is not my intention here to enter at large into a detailed account of the plague which I saw in Egypt, nor into the mode of its cure, in which, I regret to say, I was very unsuccessful; as any remarkable circumstances which came under my observation were reported to, and have been already detailed by, Sir James McGrigor, in his "Medical Sketches." The principal advantage accruing from my exertions on the occasion just mentioned, seemed that of preserving the uninfected from contagion, by means of a strictly-enforced adherence to quarantine: for, as far as I remember, only one man was attacked after I had made the separation betwixt the sick and the healthy. The cases which I thought doubtful at first, turned out afterwards to be confirmed plague, and were sent to the hospital, where, I think, all but one died. Those who did not take the plague—amounting to nine—joined their department at

the expiration of their quarantine, after having undergone the necessary purification, and been supplied with fresh clothes. They afterwards returned to India, when that army was recalled, which happened shortly after they were liberated from quarantine.

Having given this short account of the plague which appeared in the commissariat department of the Indian army, it may be expected that I should here say something of the plague which broke out in the district of Lefchimo, in the Island of Corfu, in the year 1815. But as the detailed account of that plague forms a considerable part of the following work, I shall reserve what I have to say on this subject till I come to its proper place, and shall only add, at present, that in the general character, both diseases were the same. The latter was happily suppressed under that distinguished officer, Lieut.-Gen. Sir Thomas Maitland, the Lord High Commissioner of the Ionian Islands, whose active exertions were so conspicuous in keeping under, and finally extinguishing, the plague at Malta, and whose enlightened and comprehensive mind displayed itself so eminently on that occasion. In the execution of his plan in Corfu, his Excellency thought fit to appoint Major-General Sir Charles Phillips to the direction of the whole of the plague duties, and myself to the charge of the executive within the district. The Major-General, from his meritorious services and uncommon exertions during the plague at Malta, which happened two years before that of Corfu, was peculiarly adapted for this important charge. He knew well, from his personal experience on that occasion, all the difficulties that arise in the arrangement of a duty of this kind. He had thoroughly studied the nature and advantages of plague-police in all its ramifications. He knew that this most formidable and treacherous enemy could be forcibly put down, and finally destroyed, by proper management. His instructions, which were sent to me regularly from Corfu, by the dragoons employed on this service, were clear and distinct; whilst my reports to him gave a faith-

ful account of the occurrences of the day ; and the machinery (if I may be allowed to use the expression) in the plague district was regulated with such ability and precision by him—and I will also say, conducted with such zeal and activity by the different officers employed—that I will venture to affirm, without fear of contradiction, that, from the time it was vigorously put in execution, no plague was more speedily crushed, or more satisfactorily extinguished, than that of Lefchimo.

My own duties, as superintendent of the plague district, consisted in the immediate charge of the execution and carrying into effect the instructions I received from time to time from head-quarters ; and I must candidly confess, that without the instructions of the Major-General, it would have been impossible for me, at that time, to have directed the various movements that it became necessary to make, or to have carried the plan of management into operation ; for it is only by experience that a duty of this kind can be understood and regulated, since even the greatest zeal and most unremitting activity will sometimes do harm instead of good, unless they are properly directed.

It is true, that the plan of operations which was here adopted was not carried into full effect until after the violent ebullition of the disease was over, and consequently, till after the principal mortality had taken place, which was before we arrived ; but the certain efficacy of that plan appeared from the manner in which the evil was so promptly suppressed from time to time whenever it started up in this extensive district, as well as from the complete extinction of the malady after the plan of operations had had time to have due effect, or, as I may say, were finally brought to a close ; nor did any circumstance ever occur afterwards which in the smallest degree led to any supposition that this dreadful malady was not entirely annihilated—a happy event, which has seldom occurred in other plagues, and which can be attributed only to the system so fully carried into effect. We well know what dreadful anxiety prevails for

a long time after the supposed extinction of the plague, and what unspeakable distress the recurrence of one solitary plague-case will cause at that time, as throwing a doubt on all the arrangements adopted. On this occasion, however, nothing of the kind happened; and from the day that *pratique* betwixt Lefchimo and the rest of the island was proclaimed, till the present hour, the public health—at least, from plague—has been perfectly secured.

It is in the beginning of plague, as soon as ever the disease is positively known to exist, that everything is to be done to put an immediate stop to it by the application of the proper remedies; and if it is confined to a particular spot, as often happens, it may easily be suppressed by proper management, as has lately been done in Cephalonia, and is not unfrequently done in *lazarettos*. But when it has been allowed to extend itself over the face of a country, it then becomes a most difficult task indeed, as well as a most expensive one—requiring considerable length of time and immense labour to all concerned in this duty. Had the plan of management which was subsequently carried into vigorous effect under the directions of Major-General Phillips and myself been fully acted on at the beginning, in Corfu, when the disease broke out there, I have not the least doubt but it would have been speedily suppressed. But, as usually happens on occasions of this kind, much valuable time is lost before the disease is pronounced to be plague. A variety of opinions are given on the nature of the prevalent disease, as every one is unwilling to pronounce the dreadful word *plague* whilst a doubt remains on his mind upon the subject—a report which, if true, is fraught with such awfully important consequences, that one becomes appalled at the very thought of them.

I shall endeavour, in the course of the following work, to give such an account of the characteristic symptoms of this disease, as, coupled with other collateral circumstances, will, I hope, tend to remove that obscurity which hangs over it,

and enable us to decide at the beginning (when it is a matter of such high importance) *what the plague is*, in order that as little time as possible may be lost in the commencement, when every moment is of such incalculable value, if the proper remedies are applied to suppress it.

I shall also give a short history of the plague both in ancient and modern times; and endeavour to make it appear that the plague is a disease *sui generis*, depending on specific contagion, and unaltered in its character from the first records which we have of it till the present day; a disease little controllable by medicine, but perfectly obedient to the laws of separation and segregation, absolute non-communication, and purification; and so long as we are able to keep ourselves from actual contact with the impested, or with things impregnated with the *virus*, there is not that cause for dread and alarm which has generally been supposed.\*

\* It is true, that in the plague in Egypt, I myself was obliged, from circumstances, to be in communication with my patients, and escaped; but several other medical officers fell victims to it there, whilst others caught the disease, and narrowly escaped with their lives; and I confess that at that time I did not understand the principle now advocated, of avoiding contact with plague patients, nor did I act upon it. Nor, indeed, was it fully known to the medical officers of that army; although every one had, more or less, a dread of the plague.

It was during the plague at Malta that this principle became better understood and acted upon; and there its humane and salutary effects were most obvious and unexampled in suppressing this calamity.

Every one but sceptics have considered the plague-service a very dangerous one; and Sir Thomas Maitland, in asking me to take the charge in Lefchimo, was so fully aware of this, that, I being a family man, he kindly gave me two days to consider of it. I only took one; reported myself ready for that service next morning, and went down to take charge that same evening, remaining there until *free pratique* was issued by proclamation, and the plague was happily extinguished.

I have said, that when I undertook this duty, I did not fully comprehend the *nature* and *value* of this system of operation; and I can well remember, that for a long time after I went down to the impested district, I passed many a sleepless night after my harassing and anxious duties during the day, believing that I had got the plague. I rose next morning with the same horrid feelings, to perform my various duties. I found it no easy matter, for a considerable length of time, to divest myself of these feelings.

It would have been satisfactory to me, in treating of the plague in Corfu, if, when I was nominated by Sir Thomas Maitland to the charge of the plague-district, I had been furnished with official documents respecting its rise and progress, and other information, which it was proper for me to have been made acquainted with. I had, however, no written document of any kind given me, except the daily sick-returns, from the 7th of March, just three weeks previous to my arrival in the district, and the correctness of which I had no means of ascertaining.

I called for written documents of the march of the disease, in order to know in what state things were, both in the upper and the lower part of the district, where, according to verbal accounts, the disease was still lurking, but I was told there was none. In consequence of this want of information, I was obliged, after a painful and anxious inquiry, to gain my information from every source where I thought I was likely to obtain any, particularly from the medical officers stationed in the villages; and who, having been resident in them for some time previous to my arrival, and having made it their business to inquire into the history and progress of the disease within their respective stations, were perfectly competent to afford me the information I sought for. But I had the satisfaction of having their testimony corroborated by collateral information from among the most intelligent and better informed of the inhabitants themselves, in whose memory the recent occurrences were still fresh. I do not doubt, therefore, that the account which I shall give in the narration is strictly correct, and may be depended upon.

I know it is a very difficult matter during an attack of plague to get at the real truth of many circumstances which occur. People are often very reluctant to tell what they know, partly from motives of mistaken friendship, and partly for fear lest they themselves should be implicated, or brought into trouble by boldly coming forward to give what information they pos-



sess on the subject. Besides, it not unfrequently happens, that malevolence and an old grudge will induce wicked persons to state things very differently from what they really are; and this is sometimes so much the case, that I had almost said, that we can only depend on what we actually see with our own eyes. In searching for information relative to plague matters during the time of its existence, we ought to make ourselves acquainted as much as possible with the moral character of the person or persons from whom we expect it. We ought to ascertain that their motives in giving it are pure, and that they are not biassed by party feelings or private considerations, or we shall assuredly be deceived, and induced to do what is wrong, and what may ultimately lead to very distressing consequences.

It is an established maxim in the police treatment of plague, that half measures will never exterminate this dreadful enemy. The snake may be scotched, but not killed. The road is straight-forward, and we must not deviate from it. Whenever positive disease exists, it must be instantly removed to its proper place, and this without regard to condition, sex, or age; whilst those in immediate intercourse with the sick, and who, in the eye of the strict laws of quarantine, must be supposed to be impested, are also to be removed and placed under proper quarantine restraint, until their system is satisfactorily ascertained to be free from contagious taint. It may happen, undoubtedly, that eventually all will escape, and none of them take the plague. Happy, indeed, where it occurs, should this turn out to be the case. But as this cannot be known *à priori*, notwithstanding that they may appear to be in perfect health at the time, we are bound, by every principle of sound policy and humanity, not to permit those in health to remain with the sick for one moment after the existence of positive plague is ascertained. Every instant that they continue in communication with the indisposed adds to their immediate danger, and to the risk they run of becoming attacked by the disease.

I have said that it is possible, and there are, no doubt, in plague records many instances, that the plague may get into a family without attacking more than one person; but most assuredly this is not to be calculated upon or looked for. I will venture to say, that in fifteen cases out of twenty, and I believe I may even say in a still larger proportion, the contrary will happen, if nothing is done to counteract the progress of the disease; for, when once introduced into a family, no matter by what means, it will sometimes run through that family, ceasing perhaps only with its total extinction, leaving but one or two individuals to mourn over the entombed relatives who have been thus suddenly swept away from them. With regard to this, however, no calculation can be made, when once the disease has been introduced; and it is quite impossible to say who are to be the victims, and who are to escape. The sooner, however, that the separation takes place, the greater is the chance of escape to those who appear to be in health.

I am here supposing that the plague has occurred in a family, some of whom are labouring under the disease, whilst the rest are to all appearance in perfect health. I have supposed that the sick have been promptly removed to the place assigned for their reception, and the rest of the family placed in strict quarantine. But this is not enough. We must go further. We must gain information of the persons with whom the family have had intercourse, not only since they fell sick, but also some short time before; and they also must be separated from the community, and placed under observation, until their freedom from plague be ascertained, which time alone can prove.

There are three grades which, in time of plague, are to be separated and removed from the community—

1st. Those actually labouring under *positive disease*.

2nd. Those of the same family, who one and all must be regarded with suspicion, as more liable to be attacked, from their habits of intimacy and actual intercourse with the sick;

and it is here that the disease almost always exists. This I denominate the class of *high suspicion*.

3rd. The last class or grade are those who have had, or are supposed to have had, actual communication with the impested family. This naturally forms the most numerous class, although the least suspicious one, and consequently the most free from disease. This I denominate the class of *observation*, or those *simply suspected*.\*

In the segregation of this last grade it behoves us to be extremely particular to find out all the persons who have lately had immediate intercourse with the plague family; and it would be very desirable if we could always get at the bottom of this matter. But this we cannot expect to do; for, in spite of all our endeavours, they will conceal the names of their friends, for fear of giving them trouble, an act of kindness the most mistaken that can possibly be. Nay, they will often from the same cause positively deny the fact, when the names of certain persons are mentioned to them as those with whom they have had intercourse subsequent to the appearance, or about the time of the disease breaking out in the family.

One thing may be generally done with safety; and that is, we can find out their relatives who are in the habit of intercourse with them, and their near neighbours, and remove them to observation, whether or not we have proofs that actual communication has taken place. Were we always able to come at

\* But should it be afterwards ascertained that any of this class have had intercourse with *positive plague cases*, they are obviously liable to be attacked by it; hence the necessity of separation for a period of fifteen or sixteen days, during which time they are to continue daily to handle and expose their susceptible effects to the air. If this is *strictly* complied with for that period, and they are all well, they may be considered safe; for if they have had the infection in their system or clothes, it has been ascertained that it will show itself before that time. Should, however, plague break out among them, the case is altered, and must be treated accordingly. In fact, they must be treated as *highly suspected*.

the whole truth, it would, of course, suffice to act upon that; but this, as I have said, is not to be looked for. We are therefore, in a great degree, left to our own discretion, and must act from our own judgment. In this matter I have only to say, that whilst the public health demands the removal of this class from the community, it would be a very cruel and unjustifiable act to subject to this inconvenience those who are perfectly free from suspicion: for, though no danger can, or at least ought to happen to these, while placed in observation, if things are properly conducted, yet the very removal of these persons, independent of every other consideration, is extremely disagreeable to them, not only on account of the private concerns of their families, but also that of the alarm it causes them, and which is the necessary consequence of even this slight degree of suspicion.\*

These three classes, of *positively diseased*, *highly suspicious*, and *simply suspected*, or under *observation*, form the three great links of the chain of plague, all of which ought to be separated from the general mass of the people, and are also to be kept perfectly separate from one another: for if, by accident or mismanagement, these classes are mixed together—as, for example, the second with the third,—and positive intercourse has taken place between them, the character of those of the third class becomes thereby deteriorated, and the original distinction is lost; and they naturally participate in the character of the highly suspicious, with which they have unfortunately become intermixed. I am here, however, supposing what ought not to happen, if proper arrangements are made and acted upon: but I am induced to be thus explicit, in order to show the absolute necessity of keeping the classes perfectly

\* In the plague of Corfu, I ascertained that several of the wicked Lefchists spread reports of the existence of the disease from ill-will, or to cover their own delinquencies. In these cases, I placed the reporters themselves under quarantine restraint for a time, by removing them to a camp of observation, as a punishment, which had a very good effect.

separate from one another during the performance of their established quarantine, and, indeed, from first to last; for they cannot be mixed together with impunity. Even a solitary individual of the third class, if by any chance he has had direct communication with the second class, cannot be received again into his own proper one, without vitiating its character. He must therefore remain where he is, becoming identified with that class with which he has so unfortunately communicated; and he thus, of course, becomes more liable to be attacked by the disease than he would have been had he not been separated from his own proper class. He must also necessarily undergo a protracted quarantine, the same as assigned to the class with which he has had communication, whether such an occurrence takes place from mismanagement in the first instance, or from his own violation of the laws of quarantine. If the circumstance is owing to the latter cause, he has the less reason to complain of such hardship, as it is only the just punishment of his own misconduct.

I am unwilling to increase the different links of the plague chain beyond the three I have mentioned; yet there are doubtful cases that sometimes occur, which also merit particular consideration. On examination it is found that, although the person is not well, yet that there are not such positive symptoms of plague as to warrant his being sent to a pest-hospital; and ordinary complaints must of course be more or less common in time of plague. In short, it is found that the case is doubtful, and may in the end turn out to be plague; but, at the same time, it may not, as the indisposition may be owing to causes unconnected with the plague contagion. These are embarrassing cases, which are difficult to be disposed of. They ought not to be sent to the hospital, and placed among the plague patients. It is not proper, however, that whilst this doubt remains, they should be permitted to have free intercourse with their neighbours. These cases, I think, ought to be removed to, and placed in quarantine of observation, apart from each other,

and also from the other classes, as in all probability a few days, or perhaps a few hours, will decide the matter one way or the other. When the disease is found not to be plague, they can be sent back to their homes, or to the quarantine class to which they belonged before. If, however, it turns out to be plague, such person or persons must be sent to the pest-hospital, and we have the satisfaction of having done everything possible to prevent the disease from spreading. In the meantime, that the person is sent to the hospital, the rest of the family, being now in a state of *high suspicion*, must be transferred to the class of that description.\* If, indeed, we could be certain that no intercourse would take place until the doubt were removed, we might let the family remain where it is; but as we can seldom, or scarcely ever depend on our injunctions being strictly complied with, the safest way will be to remove them at once for observation.

In plague matters it ought never to be forgotten that humanity to individuals may be the greatest cruelty to the community at large.

Let me explain myself. Suppose that these doubtful and perplexing cases should turn out eventually to be plague; would it not have been cruelty in the extreme to the community to have permitted the usual intercourse to have existed, and to have allowed them to associate with other families who are free from suspicion?—to have allowed this decidedly contagious disease to propagate itself perhaps far and wide, as it will inva-

\* I am here speaking of two different cases: the first, of persons being unwell at the medical inspections, which, I take it for granted, are made twice a day in the houses; the other, of persons who may be taken ill in quarantine of observation at these inspections. In both cases, a most careful examination of the persons is required, for ordinary diseases are not suspended in time of plague; and it is a most distressing thing to allow any one labouring under any common complaint to be sent into the plague-hospital. Yet I have no doubt that this has been frequently done, from not attending carefully to this matter. The necessity, therefore, of a very careful examination and great discrimination is most important on every account.

riably do if not restrained? It certainly would. The matter admits of no doubt whatever. We know sufficiently the insidious nature of this disease, and its Proteus-like property of assuming such various shapes, as to put us on our guard against even the remotest suspicion of it; and it is only by thus boldly laying hold of it on suspicion, that it is effectually to be crushed; for if we confine our operations to the weeding out and removing the cases of positive plague, as they occur, we shall perform but a small part of our task, and leave the seeds of the disease behind us at every step.

From what I have here said, it will not, I trust, be imagined for a single moment that I wish to extend the suspicion beyond what is strictly plague, or to cause unnecessary alarm or derangement in families, beyond what the urgency of the case requires; or that I would attempt to bring to a pest-hospital or to quarantine all those who are not in perfect health, or those who are free from suspicion of plague. I have certainly no such wish or intention. Every one is well aware that persons may be ill, and labouring under many diseases, particularly those of a chronic nature, in which there is no suspicion whatever of the existence of plague; and I need hardly say, that it would be highly improper, not to say cruel, to treat them and their families as if they were impested. What I have here advanced is intended principally to guard medical gentlemen and health officers against placing too much confidence in what the parties concerned may state respecting their complaints. One should know that people will often try to deceive and impose upon those charged to inspect their state of health; and it is therefore right that the inspectors should be fully aware of this, and should trust more to their own judgment in forming their opinion of the disease, than to what they may hear. Indeed, we know that sometimes persons labouring under the most decided symptoms of plague will deny that they are unwell, and appear much offended at the bare supposition of their being ill of that disease; whilst

others will most studiously conceal every circumstance that could any way lead us to form such an opinion.

It may be alleged that there is no occasion to separate those doubtful cases until the positive symptoms of plague begin to show themselves; for that it is then time enough to treat the family as if it were actually labouring under the calamity. This, however, I must deny; for if we wait till the disease is completely established, we lose much valuable time; and, perhaps, in the interval, communication with healthy families takes place. For in the plague, as in military tactics, we should anticipate the enemy. If, indeed, the family can be cut off from all communication with others, then they may be allowed to remain where they are, until the matter is cleared up. Yet, even in this case, the other members of the same family, though to all appearance healthy, will, by thus continuing in free and unrestrained intercourse with the person or persons indisposed among them, evidently run an additional risk of being so impested, should the disease turn out to be plague. But this separation must not be a feigned and illusory, but a real and positive one. Regard to the people at large demands that it should be so. Still, even in this supposed case, such permission might lead to bad consequences; for it is very obvious, that although one house, or even twenty, may be strictly guarded, so that the non-intercourse is absolute, yet this cannot be done in every instance without leading to incalculable expenses, and the employment of an immense number of guardians; nor would this mode of acting, in the end, be found to be effectual for the public security, as some persons would then for a bribe, or from persuasion, be induced at times to swerve from their duty, and permit clandestinely that intercourse which they were stationed to prevent, as I have reason to believe happened more than once soon after the calamity broke out in Lefchimo.

I do not mean, however, that in every instance we are to act strictly up to the rule I have here laid down respecting the



doubtful cases. Peculiar circumstances and local situation may authorize in some degree, at times, a deviation from it. But I am fortified in this opinion, that the more closely we act up to it, the better; and I hold it to be bad policy in the time of plague to act with indecision or partiality.

It ought to be impressed on the minds of the persons under suspicion, whom it is considered necessary to separate from the mass of the people at large, and place in observation, that no real danger can accrue to them from this separation, although I admit that considerable inconveniences may thence frequently occur; and, in fact, if things are properly managed, there is no danger, provided they themselves are obedient to the rules of quarantine. They may have the plague in their constitution, and this cannot be remedied; but they will not get it in observation, if they keep themselves perfectly separated from the others. If they unfortunately should have been really impested before they were placed in observation, it cannot be helped. Nothing which we know can prevent its appearing; and it will soon show itself. If, however, they are free from it when placed in observation, they ought not to contract it there.

It is thus that the plague is to be destroyed, root and branch, whenever and wherever it makes its appearance. The sick must be sent to the hospital as soon as ever *the positive symptoms of plague show themselves*; their families must perform quarantine as *highly suspected*: and those, again, with whom intercourse with that family is known, or from probable circumstances, is supposed to have occurred, must be placed *in observation*, forming the class of *simply suspected*.

I am here supposing that the disease appears in a town or village, and the plan of operations which I have pointed out is carried into full effect; by which means the disease will in a short time be transferred from the town or village to the hospital and places appointed for the performance of quarantine and observation.

The same general principles are always to be adopted whenever it makes its appearance in any of these two classes. Thus, whenever the disease breaks out in class No. 2, or the *highly suspected*, the unhappy sufferers are to be sent to the hospital from time to time. Again, if it starts up in the class of *observation*, No. 3, the patient is to be immediately sent to the hospital; and his family, or the persons with whom he has had communication must be sent to the class of *highly suspected*: for, as *positive* disease has appeared in his class, the individuals who have been in contact with him are thereby more likely to contract the disease, and it is therefore unfit that such should remain any longer among those of the class to which they originally belonged, for fear of their spreading the disease among the class of *simply suspected*.

I would earnestly recommend to the persons, both in *high suspicion* and in *observation*, to have no intercourse beyond the immediate parties who are in the same state of suspicion as themselves: and, indeed, could it possibly be effected, it would be most desirable that every individual be kept separate and altogether apart from the rest during the time. Could this be done, the plague would be instantly checked, and entirely destroyed after its transfer to the places appointed for its reception. There would then be nothing left to feed and support the disease, which would soon die a natural death.

There is still an important consideration connected with the segregation and separation of families in the time of plague, which deserves to be particularly attended to; and that is, the state in which their susceptible property is to be viewed. The laws of quarantine direct that every house in which the plague has existed be expurgated. This pre-supposes that every article of a susceptible nature within the house is impregnated with the *effluvia* of plague, and, consequently, is to be perfectly purified.

It is, no doubt, an assumption to suppose that every article

in such a house is positively imbued with the *virus*, or miasma, of plague. Indeed, it is not probable that this is the case. That, however, is not a matter of any consequence; because, as there are no means of ascertaining what is positively impested and what not, we must take care to err on the safe side, by considering everything in that house impested which is supposed capable of receiving the *effluvia* of pest. Half measures will not do; and we must pay no attention to the accounts which we may receive that such an article is impested, and such another, owing to particular circumstances, not so. We must go on straightforward, and in expurgating or destroying everything, remove all possible doubts.

With regard to the houses and effects of those who are removed only on suspicion, the case is different; and the proof of their houses being free from the contagion of plague is their own state of health. If that is good, and continues so till the expiration of the period of their quarantine, then there is no reason whatever for supposing that anything in their houses is impested; and, consequently, there is no reason whatever for allowing the expurgators to enter them, or in any ways to disturb or injure their property.

This, however, supposes that the family are in health, and, at the time, free from plague. But we must take another view of the subject. Suppose, what may frequently happen, that the disease breaks out among them a few days after their admittance from their own houses into observation. The strongest probability in this case is, that they have brought the disease along with them, and that they have been impested before their segregation. As this is the only fair conclusion that we can come to, we are bound to consider their houses as impested, from the circumstance of their having taken the plague with them; and, therefore, in every point of view, their houses are to be treated as impested.

But it is possible that the plague may have been contracted by them whilst in quarantine; that is, that although they had

not the plague when they came to perform their quarantine, they may have got it there. This, however, requires some explanation. We do not know, generally speaking, how long disease may lurk in the system before it shows itself. But in plague, this matter is perhaps more satisfactorily known than with respect to other distempers. It is, I think, distinctly ascertained, that with regard to plague, if it is in the system, it will show itself before the expiration of fifteen days. Indeed, I doubt whether it will remain occult so long; and the probability is, it will show itself before eight days if it really exists. I know that we are told that the *miasma* of plague may lurk in the habit for many days. We have heard sixty and even eighty days mentioned. My belief, however, is, that this is not the fact; and that, if the matter came to be minutely inquired into, we should find that there was a more recent date of contact with impested persons or things, to which the malady is to be attributed.

If, therefore, a period of fifteen days has elapsed, during which the persons are in the constant habit of purifying all the effects which they have brought along with them, and they continue still in health, I would say that, in as far as regards the cause of suspicion, for which they were placed in quarantine, they are safe; and that, if they unfortunately have contracted the malady afterwards, it must have happened from touching some impested person or thing whilst they were in quarantine, should plague have unfortunately broken out in that class. This may be considered as a matter of no consequence as affecting the patient himself, for it matters little to him whether he took the disease along with him or got it whilst in quarantine; but although it is of no material consequence to the impested person himself which way the malady was contracted, it is of the highest consequence with regard to his house and property; for, in the one case, the family must be considered as impested, and treated as such; and in the other, they ought not to be visited by the expurgators, if we are really

certain that the house and effects have remained untouched from the time the family left them. To permit the expurgators to enter such a house, would be an unwarrantable injury to their property.

With regard to the places proper for performing quarantine, I would, for many reasons, prefer tents to houses. They are more cleanly and airy; can be made more insulated; and, consequently, there is less risk in them than in houses of contracting the disease. Moreover, they can be so much exposed, as to be completely under our eye, so that nothing improper can be carried on in them, at least, during the day; and these are all advantages which we cannot have in houses. It is necessary, of course, that the situation be healthy, and at a short distance from the hospital, or pesthouse, which I would recommend never to be in a town, if it can possibly be avoided; that there be plenty of fresh water near it, as well for the purpose of ablution as for other uses; that the whole establishment be insulated, and all approaches towards it carefully cut off. It would be desirable, if circumstances permitted it, that the position were close to the sea-shore.

Quarantine establishments, whether they are intended as a protection against the inroads of plague, considering it as an imported disease, or in the acceptation most generally meant here—viz., as places where the health of the persons who are separated from the general mass of the people, on account of the suspicion of plague, is to be proved by time in an insulated situation—are to be kept sacred and inviolate. I shall enter more fully into the matter in the body of the work, as the subject comes before me; but I may here notice, by the way, that in the time of plague, the quarantine encampments, which, for various reasons, I would prefer to houses, ought to be well-guarded, night and day, by means of sentinels appointed for that purpose; that one class ought not to be permitted to have any intercourse with another; that the three grades, of *positive plague*, *high suspicion*, and *simple suspicion*, as also the *addendum*

with respect to doubtful cases, embrace everything necessary to secure the public health; that, in fine, the classification under the different heads is the same, whatever numbers there are to be admitted.

It is, however, necessary to keep in mind, that when the prevalence of the calamity renders it requisite to admit new cases daily into these different classes for a considerable length of time, (and such, when they occur, must be admitted under the heads I have mentioned,) the number thus admitted being considerable, would cause no small confusion in the quarantine; and this will undoubtedly be the fact, unless we are careful to prevent it. Proper attention not being paid to this particular was the cause of considerable inconvenience in Corfu. Yet, by a little attention and management, this matter may be rendered extremely simple and satisfactory. Suppose an encampment-ground, in which the positions for the different classes I have mentioned are prepared—the *sick*, for instance, in the hospital; the *highly suspected* and the cases of *simple suspicion* in their own proper places; and the doubtful cases apart from either. If the admissions are considerable, I would, every six or seven days, shut up each camp, or party, and allow no more admissions into it; that is, I would shut it up, and perfectly secure it, day and night, by sentinels so stationed as effectually to prevent any intercourse from taking place with the other divisions or classes. Having done this, I would open new divisions of the same classes; which, after a certain number of days, (the term to depend entirely on circumstances,) I would also shut up and secure as formerly. Thus, by continuing to do so as long as admissions continue to be sent in, the original classes would remain the same throughout; while the divisions and subdivisions, no matter how numerous they be, would follow the same course, and would be kept perfectly apart from each other in strict quarantine. By these means, we know with certainty what is going on in all the different classes, divisions, and subdivisions. We know the accidents, whatever

they may be, which occur in all of them; which, if no intercourse has taken place, must be confined to their own proper division, without affecting any of the others; and we keep a regular account of them. We know the day that such a division of such a camp was shut up; and we are enabled, pretty correctly, to make some estimate of the health of the persons thus separated and segregated. But all these classes, divisions, and subdivisions, must be kept perfectly separate, or everything will go wrong. For if by any means they are mixed together, we cannot tell or know what may be the consequences; for if disease breaks out, we shall then be thrown into a state of complete confusion, from which we shall not easily be relieved, as all calculations with regard to time and other circumstances will be wholly lost from the breaking down of the quarantine rules and regulations.

If the classes are divided and subdivided in the way I have proposed, and kept distinctly apart, nothing like confusion can happen; and those in quarantine may look forward with confidence to the period of their liberation, after a certain time, if they are free from disease; which they could not do, if this system becomes deranged, and disease starts up indiscriminately here and there, without being properly accounted for.

I noticed, in a passing way, that by not attending to the shutting-up of these camps every six or seven days, according as the admissions into them are numerous or not, much hardship and inconvenience may ensue; and here I may adduce an instance of this. Before my arrival in the plague-district, constant and daily admissions had taken place, which, of course, protracted the period of liberation. At one time, in the camp of the *simply suspected*, there were persons who had been sixty days in quarantine, promiscuously mixed with those who had been admitted only a few days before. The people who had been longest in quarantine complained (and with reason) that they saw no end to their confinement, in consequence of the daily admissions into their camp; for every fresh admission vitiated its character.

When I came to know the system that was carried on in this camp, I put an immediate stop to such a proceeding. I shut up that camp, and opened another division of the same class, into which all fresh admissions were received. After a few days more, I shut up that division also, opening another; and so on successively, till all further admissions had ceased. As to the camp itself, in which such roundabout quarantine had been going on for so long a time, their period of quarantine was to be reckoned from the day of the last admission into it before its being shut up; and as no accident of plague occurred from that time for forty days, the persons detained in it were, at the end of that term, sent back to their homes. I may here add, that in no case ought a camp to be left open longer than twelve or fifteen days. It were cruelty to the other persons who are in it to extend the time beyond that period.

Every consideration of kindness and humanity ought to be paid to persons thus separated for a time from the community; and every indulgence consistent with the public safety ought to be accorded to them in their unhappy situation. They naturally become easily alarmed and anxious. Their case is truly distressing, although the public safety requires their temporary separation; and none but the callous-hearted and unfeeling would refuse to soothe and comfort them in their peculiarly trying situation. Their proper wants should be regularly supplied, and their galling chain made as light as possible.

I have here much heartfelt satisfaction in recording publicly the very great exertions made by his Excellency the Lord High Commissioner and Major-General Sir Charles Phillips in not only supplying in the promptest manner the various wants of the inhabitants of Lefchimo during the time of their distress, but in even humanely anticipating them. And it is equal justice to mention the immediate attention that was always paid to my numerous requisitions for the public service by these officers, and by the senate of Corfu, without which it would have been impossible to have carried on the duty, or to have finished it in the prompt and satisfactory manner in which



it was done. I was, indeed, so much satisfied with the way in which my demands were supplied, that I find amongst my papers the copy of a thankful acknowledgment of it to General Phillips, in my official dispatch of the 17th of April. To him, however, such acknowledgment was unnecessary, for no one could be more desirous than he was to expedite matters, and no one knew better how to accomplish the object in view.

The system that has been not unfrequently resorted to, of burning people's houses and property, with the view, as has been unfortunately imagined, of putting an immediate stop to the ravages of the plague, cannot be deprecated too strongly. Nothing is more improper, or more likely to defeat the object intended. The burning of an infected house will not effectually destroy the contagion; because, in nineteen cases out of twenty, everything susceptible is not effectually consumed, and the *fomes* of the disease may, and will remain in the articles that have escaped the fire; so that, when these are handled afterwards, they will most assuredly reproduce it. An impested house may, therefore, be destroyed, so as to be rendered quite uninhabitable; whilst the impested beds, for instance, may escape the fury of the flames. It is, therefore, quite obvious that the plan is in itself not only cruel in the extreme, but also ineffectual for the purpose intended. It is also highly impolitic, and apt to render the people desperate; as well as to induce them to save what things they are able to secrete from the general wreck, and hoard them in a thousand ways, perhaps fully charged with the contagion of plague, and thus make them the means of future mischief. Nor ought we to be at all surprised that the people will not tamely submit to see their property destroyed and themselves reduced to beggary in a moment. Human nature cannot bear such treatment; which is the more to be deplored, because unattended with any immediate benefit, and likely to lead to very fatal consequences in the end.

I am induced to make these remarks, from knowing that soon after the plague broke out in Lefchimo, the system of burning

was had recourse to, in order, as was imagined, to crush the disease at once; and it is not too much to say, that it was not productive of good effects, but that, on the contrary, it was the cause of much serious vexation; as the poor sufferers, amidst the general consternation, removed secretly from their burning houses part of their property, which was impested, and hid it in the earth, or threw it into the wells, in order to save it, where, I imagine, every article of a perishable nature was in a short time rendered useless.

Nor was this secreting of goods confined to the inhabitants of the burned houses alone; but some families, who were in health at the time, not knowing how soon their houses also might be denounced as impested, took the alarm, and anticipating what might perhaps happen to themselves some time or other, removed, and artfully concealed their property in like manner. Now, it was quite impossible to say with certainty whether the things thus hid were really impested or not; for sometimes it turned out afterwards that infection lurked in these hoards; and, indeed, it was known only to themselves what they had concealed, or where such effects were deposited. The consequence of all this was, that after the plague had, generally speaking, ceased, it started afresh whenever these hoards were interfered with; and we were consequently obliged to call in the expurgators, who alone could be employed in this duty; and they were for a considerable length of time engaged in searching out these nests of concealed effects, in destroying them on the spot, or removing them to the general depôt formed for the reception of impested things. And, in order to secure the public health against this concealed infection, the government found it expedient to issue various proclamations, which were read in all the villages of the district, in the camps, and even in the pest-hospital, calling on the people in the most urgent manner to tell where they had concealed anything; and to give additional force to these proclamations, the Bishop of Corfu issued his *anathema* against all those who refused to come

forward and make the discovery. Even these strong measures were not effectual; and it was not until I represented to Major-General Phillips, the *locum tenens* of the Lord High Commissioner, in the strongest manner possible, the necessity of granting some remuneration for the discovery of hidden goods, by way of compensation, that they came forward at last to make the wished-for disclosures. And for this purpose money was sent down to me, to be distributed among them, according to my discretion. It being, therefore, an object of the very first consideration to get at the bottom of these hoards of infection, or concealed goods, every one was promptly paid on the spot a certain value for the property discovered. That this had the desired effect, I am led to conclude from the continued freedom of the district from plague during the rest of the time I remained in Corfu, and up to the very period I am now writing this: for my belief was, that if these hoards of infection were not discovered, that plague would break out afterwards (and which in some instances we found to be the case) among the people when they came to look after their effects on their return to their homes. Probably some of their things might have been so rotten or destroyed as to be no longer noxious: but it would have been bad policy to put the matter to the test, and the better plan was to burn them at once wherever they were found. The rooting out, therefore, of these nests of concealed goods, which, I may say, were spread far and wide, was no easy task; and the state of anxiety in which we were all kept, lest everything impested had not been destroyed, was far from pleasant, notwithstanding that we were all on the watch to lay hold of the disease the moment it should anywhere make its appearance.

It may, no doubt, be necessary in the time of plague, especially at the beginning, to make severe examples of persons violating the laws of quarantine. Yet I am decidedly of opinion that the punishment of death ought never to be had recourse to but in cases of the greatest urgency, and then only

for the sake of example. Hanging and shooting tend only to exasperate the people, and seldom prevent the commission of this crime. More will be done by mild measures, and explaining to the people the reasons and necessity of acting as we do; and by endeavouring to persuade them that we are not at all actuated by cruelty or malevolence towards them, but from a regard, not only to the public safety, but also to their own personal security and advantage. There are many ways of punishing, without having recourse to such extreme measures. Still the people must be made perfectly to understand that whilst under quarantine restriction, which in its nature approaches to martial law, they cannot with impunity violate such restriction, nor make light of so sacred a law, but that the community at large, as well as they themselves in particular, are immediately concerned in its strict observance. That mild and conciliating measures will have the happiest effects, I can vouch from experience; for, during the whole time of my residence in Lefehimo, among a people no ways remarkable for tameness and obedience to orders, only one man lost his life for his refractory conduct. But this was a most hardened and unprincipled villain, who had been guilty of the greatest excesses, as will be seen in the narrative.

In the time of plague, as well as in the time of warfare, it must be expected that much valuable property will be destroyed, and some of it, perhaps, in a wanton and unnecessary manner, which it is not always in our power to prevent. This destruction of property of a susceptible nature, or such as is capable of retaining and propagating the plague, is owing to the impossibility of ascertaining with precision the *things* which contain the *fomes* of the disease, and of separating them from those which do not. On this head, much, therefore, rests entirely on suspicion, and perhaps but a small portion on positive certainty. Thus, in an impested house, the clothes immediately about the sick, and many of the things in their chambers, are no doubt positively imbued with the matter of plague, and respecting

them, there can be no manner of doubt. They ought, therefore, to be immediately set apart for purification, or to be destroyed, as may be deemed most proper. With regard to many other things, it is evidently probable that they may not be impested; but as it is, we have no means of ascertaining the fact. And as not even a chance of the pestiferous matter remaining in anything in the house can be allowed, by the laws of quarantine, there is no other alternative than to treat the whole house and its contents as impested, purifying or destroying every part of the susceptible furniture, and perfectly expurgating, white-washing, and fumigating the house itself, so as not only to destroy the bad air in the sick chambers, but also to remove every article, and even the minutest rag which is capable of retaining the matter of plague; by doing which, we effectually purify that house, even under the very worst possible circumstances, and render it again habitable.

The disposal of susceptible property in the time of plague is a most important object of consideration; and notwithstanding all our care to prevent it, there is room to fear that a great deal of it will be unnecessarily destroyed. On this head only general directions can be given. But it is undoubtedly the imperative duty of every one concerned in the expurgation to do everything in his power, consistent with the public security, to preserve such property. And if such do their duty, much unnecessary and wanton destruction will be prevented.

In the beginning of plague, as well as during the whole procedure, much is to be done towards preventing the destruction of property by timely and good management. With this view, depôts ought to be early formed for the reception of the effects belonging to families who may be unfortunately attacked by the disease; and as much as possible, the property of every family ought to be kept separate and distinctly marked, to prevent all mistakes; some account, too, of it ought to be taken by the persons in charge.

I am aware that there is a considerable degree of trouble

attending this operation ; yet I am perfectly convinced that it may be accomplished, in a great degree, by proper management, and without much danger to the persons employed, provided they take proper care of themselves. By this, two very essential objects are attained : first, we remove everything capable of propagating the disease, and place it where it can do no harm ; and, secondly, we have the satisfaction of saving much valuable property, part of which, at least, may, perhaps, be purified with very little trouble, and no danger, at any time, such as plate, &c. ; whilst the remaining things, which are considered worth the expense, may be purified afterwards. I need hardly add, that these depôts ought to be guarded with the most jealous care.

Great temptation is no doubt thrown in the way of the persons employed in the transporting and purifying of these goods ; and when, generally speaking, we consider the moral character of those performing this service, we cannot trust much to their honour and honesty. But if the police regulations respecting them are as strict as I suppose them to be, they ought not to have an opportunity of stealing or secreting anything. They might possibly contrive to hide silver or gold in the earth ;\* but as I take it for granted that no intercourse whatever is

\* The secreting of anything is no doubt a loss to the proprietor, which, if possible, ought to be prevented. But the concealment of things of a nature, I had almost said, incapable of producing the disease—such as silver, gold, &c., when nothing susceptible is attached to them—is to be viewed, in as far, at least, as regards the public health, in a very different light. The purloining of such things, of whatever consequence to their owners, can be but of small import to the community compared with that, for instance, of linen, cotton, and things of that kind, which are known to be most susceptible of catching and retaining in them the virus. For, in the first case, the articles may be safely removed with a pair of tongs or pincers, and dipped into vinegar, or into soap and water, and washed, without danger ; but in the other, they cannot be handled, or even touched, without risk ; and they, therefore, ought to be immediately destroyed or purified with all due precaution. In the one case, also, there is nothing to fear afterwards, unless they be wrapped up in things of a susceptible kind ; but in the other, there is great danger to be apprehended of the calamity starting up afresh whenever they are touched again.

allowed to exist between them and other persons beyond the insulated pest establishment, or between persons so highly suspected and the healthy, they cannot have an opportunity of conveying it away until the final winding-up of the whole business, when they are to be liberated. And as we have then an opportunity of narrowly examining them and everything they possess, we can easily detect what does not belong to them.

With regard to the property of such as are *simply suspected*, it ought not to be removed from their houses, at least, not in the first instance. It should be kept in mind that theirs is only suspicion, and that they may not be impested. It would, therefore, be hard indeed, and unjust, to subject them to all the vexations attendant on *positive plague*. Should *positive plague* break out amongst them afterwards, and when it can be satisfactorily ascertained to have been brought along with them, and not contracted during the time of their segregation, then, indeed, their property must be considered as impested, because they brought the disease along with them. It is reasonable, then, to suppose that the plague is in their house, and the public security requires that the proper means should be adopted to prevent its spreading, by the immediate removal of their impested effects. But if, on the other hand, there is every reason to believe that they have contracted the disease whilst *in observation*, we are to conclude that their house is not impested, and, consequently, not to be interfered with.

In order to prevent the mistakes which would happen, should the *simply suspected* houses unfortunately be confounded with those known to be *positively impested*, and by which clean houses may be entered by the expurgators, and treated as if they had been originally affected with plague, to the unavoidable destruction of property, every *suspected* and *impested* house ought to be particularly marked in some conspicuous part of it; say with a yellow cross for the *suspected* houses, and with a black one for those *positively impested*. Should it happen afterwards that the house, which was only suspected at first, becomes, from

subsequent circumstances, known to be *positively impested*, then the case is entirely altered, and the yellow mark of suspicion must be replaced by the black, which indicates the existence of the plague there; and no time should be lost in affixing it, in order to prevent mistakes, and guard every one from entering it, until it is expurgated by the proper persons.\*

It is specially to be required that the expurgators do not enter into any *non-impsted house*; because, as every one of them (the expurgators) is supposed to be charged with the pestiferous matter in their clothes, if not in their system, it is very evident that they cannot enter a house, or at least touch or handle the susceptible goods, without the risk of bringing disease into a dwelling otherwise free from it. Circumstanced, therefore, as expurgators are, they must absolutely have nothing to do with the non-impsted houses; for if they have, such houses must be considered as contaminated, and treated accordingly: for *high suspicion* ought invariably to attend all their movements. Indeed, no class of persons require to be more strictly guarded, or better looked after, in time of plague, than these; for they must all be considered as firebrands, capable of spreading the disease, and communicating it to whatever persons or things they may happen to touch; and as such, they are to be most scrupulously avoided at all times, and kept apart by themselves.

General Phillips considered the guarding of these men with the most jealous care as a matter of such high importance in the plague of Lefchimo, that a commissioned officer and a party of soldiers were expressly appointed for this duty, in addition to a police-guard, which had been sent down for that purpose from Corfu; and on whatever service the expurgators were employed, they were invariably accompanied by these guards, who

\* I am aware that the directions I give here do not embrace every contingency which may happen; and much is to be left to the discretion of those employed to conduct this service. The general principles, however, are the same in all cases, and must be acted upon.



never left them or lost sight of them night nor day. In some of the various duties which they had to perform, it became necessary to lodge them altogether (indeed, this ought always to be done, if possible) in some secure place, such as a church, or insulated house, till the duty was over, when the place which they had occupied was always white-washed, and fully expurgated, under the directions of one of the chief expurgators, before they quitted it.

It was from a laxity of discipline in this respect that the village of Argirades became impested after it had been a considerable time free from plague. Previously to my taking charge, one of the persons employed on the service of expurgating the houses there having become very popular among the inhabitants of that village, was in the habit of clandestinely visiting at their houses, the people conceiving that, as he appeared to be in perfect health, there was no danger in associating with him. This man had been for some time employed on that duty, and having hitherto escaped with impunity, he became fearless; and thinking the usual precautions unnecessary, doubtless endeavoured to persuade the villagers that there was no reason to be afraid of him, or to avoid him, as he had continued the whole time in perfect health. This foolhardy confidence in himself, from his having hitherto escaped the contagion, rendered him careless of his own safety, and consequently less prudent than he had been at the commencement. He contracted, at last, the disease, and died of it; but what was most to be deplored, he communicated the distemper to all the families with whom he was in habit of intercourse; so that this mutual violation of the laws of quarantine cost that unfortunate village the loss of many lives before the evil was got under. This man was guilty of a breach of trust, for which, if he had escaped, he ought to have been most severely punished. But the people themselves were also greatly to blame for associating with one whom they had been repeatedly warned to avoid. They would not, however, believe the necessity of attending to

such advice until they were taught by dear-bought experience the sad consequences of neglecting it.

In this case, which must appear a very conclusive one, we see the fatal effects arising from what some may perhaps consider a very trifling matter; and we may learn from hence, as well as from innumerable other instances, which are equally strong, that we cannot with impunity have communication either with expurgators, or with persons who have had the plague in their families, until a certain time has elapsed, during which they must be kept in strict quarantine. Nor is it any argument to the contrary, that in numerous instances those who have had such communication have escaped all harm. The plague is decidedly a contagious disease, and only to be combated with that view; so that, if we wish to avoid it, we must shun all contact with impested persons and effects, and with those even suspected of being so.

There is this peculiarity in plague in which it differs from all other diseases, and, I had almost said, from everything in common life—that there is scarcely any circumstance connected with it which can be called trifling, or of no consequence. Matters which, to the eye of a common observer, merit little or no attention, are to those versed in the police management of plague, fraught with the most important consequences; and it often happens that it is a minute attention to these supposed trivial matters which makes the great difference between efficient and inefficient arrangements.

Nor is it from any want of laudable zeal among those engaged in the police treatment of this malady that things sometimes go wrong; for even this inestimable quality, unless guided by judgment and experience, will perhaps be productive of unhappy consequences, and may lead to unjust conclusions respecting the nature and character of the disease we are contemplating. It is, therefore, only by the combination of these requisites, added to patience, constant activity, unwearied perseverance, and a strong mind, that we are to expect to subdue

eventually, this formidable and relentless enemy. And in the execution of this duty, I do not hesitate to say, that no one must expect to recline on a bed of roses, but that they must make up their mind to endure much harassing fatigue and anxious care, together with numberless privations, to bear up against which will require all their philosophy and fortitude.

From what has been already said respecting the indispensable necessity of separation and segregation in the time of plague, as the only effectual means of combating the enemy, it will be perceived that this principle ought to be as vigorously carried into effect as possible, from the time that the existence of plague is proclaimed.

It is with this view that the shutting up of the people in their houses has been strongly recommended, and, in some instances, acted upon. It would, indeed, be a most happy circumstance could this shutting up, as it is called, be early and satisfactorily carried into effect; and that it were not a nominal, as there is reason to suspect has been the case on more occasions than one, but a real shutting up—a perfect seclusion and separation of families from each other for a time. If it were actually so, the good effects of the system would, in due time, be made manifest, by the speedy arrest of the disease, and the safety of those insulated, provided they were free from the contagion of plague at the time of their segregation. I am decidedly of opinion that the principle is good, although, from want of energy in carrying it into full effect, it has been branded with the reproachful epithets of cruel and inefficient. But the truth is, that, if properly conducted, it is neither the one nor the other, but a measure fraught with the greatest benefits to the community, as it renders nugatory, in a great degree, the baneful influence of this invisible enemy, and, consequently, diminishes its mortality. In the memorable plague of Marseilles, of which so much has been said, the system of shutting up the people in their houses was alleged to have been fully acted upon, and to have failed. Yet there are the strongest reasons to suppose

that the shutting up there was merely nominal, for intercourse to a very melancholy extent did take place between the people thus shut up, and whole families were overwhelmed with the plague. And not only this, but the people escaped from the city itself, and spread the disease in the neighbouring towns. From the want of vigorous measures in the first instance; this city became overpowered by the malady—all was confusion and consternation there; and, in fact, it was found at last utterly impossible to stem the torrent, as every restraint had been completely broken through by the destruction of the officers of health themselves.

Nor was this the case only in Marseilles, but it was also, though perhaps in a less degree, the case in the plague of London, in 1666, as well as in that of other places, and from the same cause too—namely, from the want of a properly organized and efficient police. It is, doubtless, true that the system was not so well understood at the periods I mention as it is at the present day; and to this cause its failure may be attributed. But that is no reason for stigmatizing a plan which, in more recent instances, has had the happiest effects in arresting the progress of the calamity.

As to the provisioning and supplying the wants of the people thus insulated, that is entirely an affair of the government, with which I have nothing to do, and must depend on circumstances, which it is unnecessary to enter upon here. I may, however, mention, that above twenty villages and towns in Lefchimo were, for a great part of the time, almost entirely dependent for the supply of all their immediate wants upon the government; and everything was regularly forwarded as required, and without danger to the persons employed in this branch of the service.

Connected with this part of the subject is the partitioning an impested city or town into districts or divisions, each of which ought to be perfectly separated from the other, and no intercourse whatever allowed between them—that is, no communica-

tion permitted by which the contagion of plague can be imported from one place to another. Nor is this at all a chimerical project, or impossible to be accomplished; for the dividing the city of Valetta into sections during the plague in Malta was adopted, and with the best effect in checking the malady there. A vigilant and faithful police will do a great deal towards realizing it. And should the people at any time evade the activity of the police, they will themselves soon be made sensible of the impropriety of their conduct by sad experience, were they even immediately to escape the punishment awarded against their violation of the laws of quarantine.

In mentioning a vigorous police, and energetic measures for the restraining of plague, I would be understood to mean principally an efficient military force, on which we can depend for the accomplishment of the objects we are desirous of carrying into effect. This is perfectly indispensable in the management of plague; yet a great many things may be done by confidential civilians, which, indeed, are not to be trusted to a military force.

I will not in this place enter into the various duties which fall to the lot of the one or the other, as that must entirely depend on circumstances, and will be detailed in another part of this work. I, however, may say something with respect to *cordons*; by which I mean troops employed for the purpose of effectually cutting off any place attacked by plague, so as to prevent it spreading beyond its proper limits, either by the escape of persons actually labouring under the malady, or of those who may have the seeds of it in their system or in their clothes, or by permitting susceptible things, which may be impregnated with the *effluvia* of the plague, to pass beyond certain limits. For by all these modes the disease is to be propagated, and they therefore ought to be prevented. If a *cordon* is so stationed as effectually to prevent every intercourse, except under the laws of quarantine, between an impested place (no matter whether it is a city, town, or district of country) and

places which are healthy, and should the persons employed on that service do their duty, I will venture to affirm that no state of the atmosphere will extend the disease beyond the *cordon*, provided that it has in the first instance been so stationed as to have left no plague in its rear. Still, however, should the people by any means escape from the impested place, or should impested goods be carried beyond its limits, then, indeed, the precaution taken ceases to have its proper effect, and the disease will be propagated in the direct line of the communication.

In the plague of Corfu, the *cordon*, which was established at Messongie, to prevent all intercourse betwixt the district of Lefchimo and the rest of the island, was completely successful; and during the whole time it occupied its position, not a single individual, nor a single article of any description, was allowed to pass beyond it from the impested district, nor even immediately to approach it. The consequence was, that not one case of plague ever occurred in any other part of the island, although the malady was raging in almost all the villages of Lefchimo. If any doubts arise as to the efficiency and use of a *cordon* in plague, I reply at once that both were evidently manifested here; for if such had not been established and defended with the most jealous attention, there can be no doubt whatever but the malady would have extended itself over the other parts of the island, as it was actually doing over the villages in the interior of the district, according as intercourse between those who were healthy and the impested took place, before the means of cutting them off from one another, and the principles of separation and segregation, were fully acted upon.

In the plague of Corfu, the police regulations were arranged in such an efficient manner, and executed with such vigour and strictness, yet with such humanity and consideration for the unfortunate people — whom it was found necessary to place under restraint, for their more speedy deliverance from this dreadful calamity — that I presume I may be allowed to say

that the case has seldom been equalled, and could not well be excelled; and to that system, planned and fully carried into effect under the directions of the Lord High Commissioner Sir Thomas Maitland, and General Phillips, is to be attributed the successful manner in which the plague was immediately checked and finally put down.

To show how the intercourse between myself and the government was carried on, and which took place every day under the restrictions of quarantine, I may mention that the Orderly dragoon who carried my dispatches, which were put into a sealed tin case, was obliged to deposit them at the barrier of the *cordon*, at a place called Messongie, from which they were forwarded to head-quarters in Corfu; whilst the same precautions were adopted with respect to the orders and instructions which were sent to me from thence. The dragoons in neither case ever exceeded or entered the impested district. Equal precautions were taken within the district itself. All reports from the district were brought to me and said to have been properly fumigated; but I did not trust to this. I received them with my long iron pincers, and fumigated them myself. Having read them, I gave the necessary orders, if any were required, either verbally or in writing, and dismissed the *guardianos*. Thus I was living in the midst of a large plague district, with some fourteen towns and villages either *positively impested* or under high suspicion, superintending the management of the whole operations, and as much insulated or cut off from all society as if I had been in a wilderness; for I had no communication or contact with any one, not even to shake hands with, from first to last, until *free pratique* was proclaimed between Lefchimo and the rest of the island. The only exception to this was my servant, who was at once my cook, my washerman, and my groom, who, from a circumstance related elsewhere, was kept constantly under the eye of my guard. This he thought a hardship at first, but latterly he became reconciled to it, and kept at home, which he did with more

contentment, from knowing the mischief which was going on around him.

In this service, it was not my duty to attend the plague patients, nor was it intended that I should do so, as I had an Italian doctor, a volunteer, for that special duty; but in case of his falling sick, and being unable to attend the patients, it would have been my painful duty to have sent in another; this, however, was not necessary, as he continued in health to the last.

Had either myself or any of the other medical officers, dispersed as they were over the district, caught the disease, it would have been a very untoward circumstance in every point of view, as it would in some degree have suspended the plan of operations then going on, for a time, and perhaps thrown a certain doubt and discredit on them.

In the establishment of what I may call a general *cordon*, for effectually cutting off a district of country from the part that is healthy, or at least free from all suspicion of plague, care must not only be taken that there is no plague left behind, but that the troops forming the *cordon* do not themselves occupy houses or huts which may have been impested, and have not been expurgated; else they may get the plague, and thus materially increase the evil which they are intended to prevent. I would therefore recommend that, instead of their occupying any houses, they should be encamped, as a more certain means of precaution. Should it happen that, from defective information in the first instance, the position of the *cordon* has not been properly chosen, and that it is found out afterwards that the plague has broken out in its rear, it must be thrown back, and another position taken up; for the plague must not exist behind it.

It will be perceived that by the word *cordon*, I do not mean lines of circumvallation, ditches, or walls, but an efficient military force. This is assuredly the best *cordon*; and if they do their duty, will be completely successful. The former, however,



may in some cases assist, and render fewer troops necessary. But this matter depends so much on local circumstances, that no directions on the subject can be given.

Having said this much on the establishment of a general *cordon* for the protection of the healthy part of a country, I will now add a few observations on the precautions which it may be necessary to take in the interior of an impested district.

Every impested city, town, and village where the plague has made its appearance, ought to be immediately insulated, if we have the means of doing so. Troops ought to be placed, and such other means adopted, as effectually to cut off all intercourse between such places. In some cases, as in fortified towns, this may be easily prevented. And if the guards are but faithful to their trust, neither the people can escape to spread the mischief, nor can impested things be thrown from the walls; nor, if the people are shut up in their houses, which I suppose to be the case, will the number of troops required be so great as one is apt to imagine.

In Lefchimo, we found that an active officer with from fifteen to twenty men were quite sufficient to keep in order the largest village; whilst in the smallest villages only a steady and confidential non-commissioned officer with five or six men were required. Hence, they generally lived in the impested villages, but in houses previously expurgated, and were continually on the outlook, to preserve order and a strict compliance with the rules of quarantine; and happily with the best effects. But although shut up in their houses, the people were not prevented from assisting themselves in the various ways which were conducive to their comfort; nay, on the contrary, every facility for their doing so was granted, provided no intercourse took place amongst them, or rather, amongst their different parties, when so employed.

I am quite aware that discredit has been thrown on the system of *cordons* and shutting-up in time of plague by those who do not believe in the doctrine of contagion; and, indeed, numerous instances are recorded in which such measures have

failed. But I still maintain, that in all the instances adduced, the fault has been, not in the system, but in the imperfect manner in which it was executed; and this, of course, is to be expected. Yet it is very singular, that in some of those very places where we are told they have been useless, and *odium* thus thrown on the plan, the indispensable necessity of which I am now advocating, we find that persons who were known to have voluntarily shut themselves up and avoided all intercourse from the beginning, have remained in perfect health, when the general havoc made by the distemper has been dreadful. This I impute entirely to their perfect seclusion, and to no other second cause. If people would but reflect well on the cases of exemption which they witness in the time of plague among those who carefully avoid all intercourse and fully act upon that system, they themselves would be tempted to adopt it; and in doing so, would certainly experience the greatest benefits accruing from it.

Discredit from other powerful causes has been also thrown on the principle of shutting-up. It has almost invariably happened, that in the houses which were shut up, the sick were not removed, but left there, promiscuously blended with the healthy. No wonder, then, if the disorder was thereby rather increased than diminished. To have sick and healthy together, after plague is ascertained to exist, is little less than downright murder. People, also, who have voluntarily secluded themselves, have soon after got the plague amongst them. This, however, is to be attributed to their having had the contagion in the system before they began to insulate themselves, and not having taken the necessary precautions against it. It has no doubt happened, too, that even with all their care, some families have become impested at a time when they thought themselves quite secure, from the misconduct of servants, or some other violation of the laws of quarantine. But it would be too absurd to stigmatize the general system on account of these causes, which speak for themselves.

It is necessary I should say something in this place on con-

centration in the time of plague, although, from what I have already advanced, it will clearly appear that concentration is the great object I have in view—namely, the removal of positive disease, wherever it may occur, into one place, as well as of those on whom suspicion alone rests into another, according to their grades. When General Phillips was nominated to the ordinative direction of the plague concerns in Lefchimo, one of his first acts was to unite the pest hospitals and the persons performing quarantine, who were spread over different parts of the district, into one place, thereby cutting off the possibility of any intercourse betwixt those magazines of contagion and the neighbourhood; for every one of those places was to be viewed as a hotbed of plague; and although they were well guarded, yet, separated as they were, they remained each a distinct focus, from which danger was to be apprehended, in case they should be interfered with. Moreover, by this step, the military duties, which at that time were very severe, were greatly diminished, as also the risk from the numerous sources of disease.

The whole of the plague patients were thus removed into one hospital, and the other grades into quarantine near it, by which means the *sick* and the *suspected* were at once separated from the community. The removal of these persons, considering our limited means of transport, and the necessity of keeping the different classes entirely separate, was a very troublesome task, but it was happily carried into effect without loss of life.

Except, therefore, when an extensive tract of country is overrun with plague, and the great distance from the pest-hospital and quarantine establishments render it impossible to convey the sick and those under suspicion to their proper places, this concentration is always to be attended to; and even in cases where, from circumstances, it is necessary for the present moment to establish more hospitals and quarantines than one, it will be found proper to unite them as soon as possible.

In uniting these pest-hospitals and quarantines, every care

should be taken in the removal, so that no one class be mixed or blended with another. It will be proper, therefore, to begin first with those under *simple suspicion*, then with those of *high suspicion*, and, lastly, to remove the *sick* themselves and the hospital servants. It will also be prudent, not only on account of the persons themselves, but also on that of others, that they be properly guarded, and not permitted to straggle from their respective parties; that impested articles be not strewed on the road; and that, on their arrival at their places of destination, everything be ready for their reception.\*

As soon as these movements are completed, it will be necessary, also, to concentrate the impested goods which had been placed in the depôts, which I have already mentioned should be established at an early period for their reception.

The work of expurgating the impested houses should be going on, and everything made clean. Should transient cases of plague occur, they are to be treated in the way I have mentioned. All are to be sent to their proper places; and by thus separating disease and everything connected with it, we may expect, in a short time, effectually to destroy the formidable enemy.

It is also proper that I should say something on expurgation in time of plague. This operation is to be considered under two distinct heads: first, the expurgation of houses in which the plague has existed; and second, the expurgation of all suspected property capable of receiving and retaining the *fomes* of plague.

1st. With regard to the former, it merely consists in the re-

\* I begin with the *simply suspected* and finish with the *sick* and hospital servants, because I am unwilling that the former should be exposed to any risk from impested things; which might possibly be the case should the sick be the first removed, as these might carelessly drop or scatter impested articles on the road, which the others following them might pick up, or inadvertently touch, and thus catch the disease. If, however, there be two roads to the pest establishment, to which they are to be removed, it will be as well to begin with the sick.

moval of every article of a susceptible nature, however minute, from every part of such house, which is afterwards to be perfectly cleansed, repeatedly white-washed, fumigated, and ventilated.

2nd. Respecting the second, more care and attention is required, so as not materially to injure the effects in this operation; and, indeed, the expurgation ought to be performed by those versed in this matter. Many things, such as linens, cottons, laces, woollen goods, &c., may be purified without their receiving any damage, by being put into caldrons of hot water and soap for a short time, and then exposed to the air till they are dry. I should think that this operation performed once would be sufficient to destroy any pestilential contagion which might remain in them. Moreover, there is no harm in repeating it again and again if it is thought necessary.

Gold and silver, or things of that kind, may be sufficiently purified by washing them well in vinegar and hot water. If anything of a more susceptible nature is attached to them, such as thread, strings, &c., they must be cut off without touching them, and immediately destroyed.

Papers of consequence (and one would scarcely wish to be at much trouble except with such) are to be immersed in clear vinegar and water, and afterwards dried on a wire-grating over the fumes of sulphur, or such other fumigating materials. This will be sufficient to dissipate or destroy any contagion which may be attached to them; and if due care is taken in their fumigation, they need not be injured in this process.

Respecting many articles considered capable of retaining contagion, and, consequently, of propagating disease, authors are at some variance; but all those who believe in the doctrine of contagion in plague, warn us particularly against cotton, woollen, and linen goods, silks, hair, feathers, and things of that kind, as being not only capable of receiving the contagion readily, but also of retaining it for a considerable time—indeed, for an unknown period, and of thus producing the disease after-

wards. We are therefore to be on our guard against the touching of such articles, not only in the time of plague, should any suspicion exist of their containing the *fomes* of this evil, but we must also be particularly careful in expurgating them when they are imported to us from plague countries when plague exists there.

In the management of plague, however, we have one decided advantage over the ancients ; and that is, we can suppress, and finally extinguish it forcibly wherever it appears, either in a *lazaretto*, town, or district of country, which we can insulate by the early application of the proper means, and not permit it now to depopulate cities, and, I may almost say, whole nations, as heretofore. But although the general plan of operation is the same in all cases, the particular mode of application, as well as the length of time required to continue it, will depend on circumstances, which it is impossible here to enumerate.

Before concluding the introductory part of this subject, it may not be improper to cite the report of the select committee of the House of Commons, specially appointed to investigate the validity of the doctrine of contagion in plague ; and in the course of the work, I shall offer such remarks upon it as immediately present themselves and are connected with it.

*“ Report from the Select Committee on the doctrine of Contagion in Plague. Ordered by the House of Commons to be printed, 14th June, 1819.*

“ Your Committee being appointed to consider the validity of the received doctrines concerning the nature of contagious and infectious diseases as distinguished from other epidemics, have proceeded to examine a number of medical gentlemen whose practical experience or general knowledge of the subject appeared to your Committee most likely to furnish the means of acquiring the most satisfactory information. They have, also, had the evidence of a number of persons whose residence in infected countries, or whose commercial or official employments

enabled them to communicate information as to facts, and on the principle and efficacy of the laws of quarantine ; all the opinions of the medical men whom your Committee have examined, with the exception of two, are in favour of the received doctrine that the plague is a disease communicable by contact only, and different in that respect from epidemic fever. Nor do your Committee see anything in the rest of the evidence they have collected which would induce them to dissent from that opinion. It appears, from some of the evidence, that the extension and virulence of the disorder is considerably modified by atmospheric influence ; and a doubt has prevailed whether, under any circumstance, the disease would be received and propagated in the climate of Britain. No fact whatever has been stated to show that any instance of the disorder has occurred, or that it has ever been known to have been brought into the *lazarettos* for many years. But your Committee do not think themselves warranted to infer from thence that the disease cannot exist in England, because, in the first place, a disease resembling in most respects the plague is well known to have prevailed here in many periods of our history, particularly in 1665-6. And further, it appears, that in many places, and in climates of various natures, the plague has prevailed after intervals of very considerable duration.

“ Your Committee would also observe, that down to the year 1800, regulations were adopted which must have had the effect of preventing goods infected with the plague from being shipped directly for Britain ; and they abstain from giving any opinion on the nature and application of the quarantine regulations, as not falling within the scope of inquiry to which they have been directed. But they see no reason to question the validity of the principles on which such regulations appear to have been adopted.”

# TREATISE ON THE PLAGUE,

ETC.

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## PART I.

### ON THE NATURE AND QUALITIES OF PLAGUE.

#### CHAPTER I.

Diversity of opinion respecting plague—Considered a disease depending on contagion—Persons, however, sometimes escape it, though in close contact with plague-patients—Ancients of the opinion that plague is contagious—The word *plague* used indefinitely by them—They were unable to account for its introduction into a place—This circumstance explained by moderns on the principle of contagion—The true plague well known to the ancients—They were aware of its being propagated by intercourse with the sick, though probably not so that it could be introduced by persons or effects coming from a distant place where plague was raging.

THERE is, perhaps, no disease or calamity with which we are acquainted that has engaged more of the attention of the medical historian than the one which we are now about to consider; nor any one concerning which such a variety of discordant and opposite opinions have been given—opinions which, even at this day, and at this enlightened period of medical history, are not, perhaps, fully and satisfactorily settled and agreed upon. This is the more to be wondered at, as no disease, or class of diseases—except, perhaps, the small-pox and the cholera\*—

\* This was written before the Asiatic cholera was much known in India, and before it had made such extraordinary ravages in Europe.



has ever made half the havoc among mankind which this one has; and it is allowed by all who have ever written upon this subject, that none have set more completely at defiance the ordinary rules and practice of medicine in all ages than this same disease: for, however writers have differed in opinion respecting its general character, I believe I may say almost all of them have unhesitatingly declared it to be most intractable, as far as regards the mode of cure.

It is not my intention to enter into any speculative opinions respecting contagious or infectious diseases generally, or to draw a parallel betwixt them and plague, but I will at once consider plague as a disease depending on contagion alone\*—as a disease *sui generis*, which, perhaps, is inimical only to man, governed by its own peculiar laws—differing essentially from all other diseases with which we are acquainted, and yet partaking, in some respects, of the character of almost all of them. This subject is highly interesting to mankind, and one on which the welfare and happiness, not only of individuals, but of whole nations, depend.

In considering the plague as a disease depending on contact alone, and by that means propagated from one individual to another, I do not hastily adopt that opinion; but I conceive I am fully borne out in that point by many respectable authors of antiquity as well as modern writers, who, from their situation and the opportunities they have had of seeing the disease in question, and of investigating its nature and character, were

\* The evidence of Sir James McGregor before the committee of the House of Commons with regard to the plague being communicated by contact, is so clear and satisfactory, that I think no one can read his examination and doubt the fact. The evidence, also, of Dr. Frank is very conclusive on the point. He was superintendent of the plague hospital at Aboukir, in Egypt; and as such, had the best opportunities of ascertaining that fact. Nor can any one of unprejudiced mind read the detailed account given by Sir Brook Faulkener, physician to the forces in the plague at Malta, and entertain doubts upon the subject.—Vide the examinations of these officers. I would also refer to the works of Drs. Grohmann and Grassi, as the most recently published on this question, and which are reviewed in the 37th number of the "British and Foreign Medical Review."

perfectly competent to give their unbiassed opinion; and to these I may add my own experience on more occasions than one, as will appear in the course of this work.

It is a very insufficient argument against the generally received opinion that the plague depends on contagion, that certain individuals may touch impested persons and things with impunity, or perhaps even be in close contact with them for a length of time, and yet escape unhurt. Such, indeed, were not uncommon occurrences during the period of this calamity when I was in Egypt. I was myself in intimate contact with my plague-patients for many days, and from the peculiar situation in which I was then placed, found myself under the necessity of performing offices which, strictly speaking, did not belong to me; yet I escaped unhurt; whilst, at the same time, in the other pest-establishments in that country, several medical officers contracted the disorder, and three or more of them died of it. Now none of these officers were more exposed to its influence than I was, or more unpleasantly situated.

In the plague of Lefchimo, Mr. Tory, hospital assistant, with Dr. Piccoli and his son, died of the disorder; whilst Dr. De Georgio, who had the immediate medical charge of the patients, and lived for about six months in the midst of the plague-cases, day and night, never was attacked by it, but seemed quite invulnerable and insusceptible to its influence. It was my duty to visit the hospital and see this gentleman almost daily, and I confess I was often in dread of his having caught the malady. Once in particular, he was so long in coming out to the barrie to speak with me, that I was apprehensive he had got it at last, which on every account would have been very painful for me, as in that case I must have sent in another medical officer to perform his duty, should he have been incapable of doing it.

I think there can be no doubt that the ancient writers in medicine, as well as several of the general historians of antiquity, were fully aware that the plague and some other diseases were of a contagious nature, for their works teem with observations illustrative of that opinion. Amongst the former, I may

mention that Galen expressly denominates the plague a contagious disease; Areteus was so fully aware that the plague was contagious, that he drew a kind of parallel betwixt it and *elephantiasis*, thereby intimating that both were of a contagious nature; Aristotle, the son of a physician, and a man so eminent in his day, was also of this opinion. I might mention other medical authors, but I conceive these to be sufficient for my purpose.

Many are the testimonies which I might adduce from the general historians of antiquity to prove the point in question; but as Dr. Yeats, in the "Quarterly Journal," No. 13, published in April, 1819, has entered so fully into the subject, I cannot, perhaps, do better than cite the authorities he mentions, together with some of his judicious, and, in my opinion, conclusive remarks upon them:—

"It will not (says he) be necessary to look into histories more early than that of Thucydides, although it is related that, after the destruction of Troy, a pestilential disease raged in Greece and the neighbouring countries of Asia; and Herodotus attributes it to the miseries consequent to, and connected with, the Trojan war.

"In the second year of the Peloponnesian war, which scourged Greece for twenty-seven years, and which commenced about four hundred years before the Christian era, a raging pestilence broke out in Athens. An invading army of sixty thousand men covered the beautiful plains of Attica, and compelled thousands of the inhabitants to seek protection within the walls of the already populous and crowded cities, thus generating and increasing, by a pollution of the air in confined habitations, pestilential disease,\* &c.

\* I readily admit, that when great numbers of people are congregated together, violent disease will break out, as happened at the celebrated siege of Jerusalem, under Titus, and as also occurred in other places, when great mortality ensued; but I very much doubt whether the true plague will be generated thereby.

“ This pestilential disease raged chiefly at Athens, and also in other places, where the inhabitants were the most crowded. Diodorus Siculus, in his account of the same pestilence, declares the opinion that the disease arose in consequence of the unusual crowded state of Athens, &c. *The Athenians not daring to meet the Peloponnesians in open battle on the plain, remained cooped up within their walls, and caused pestilential effluvia ; for great multitudes of people from all quarters congregating in the city, very readily generated disease by breathing a corrupted air.*—Lib. 12, p. 101.

“ The eloquent and animated description which Thucydides gives of the symptoms clearly describes a fever of the most violent kind. It was attended with such violent thirst and evolution of animal heat, that the miserable sufferers threw themselves into the sea, into ponds, and even into wells, to quench their thirst and raging heat. *The art of the physicians not only was of no avail, but they themselves, and all who approached the sick, were cut off by contagion.* Ἀλλ’ αὐτοὶ μάλιστα ἔθνησκον ὄσω καὶ μάλιστα προσνεσαν. Such was the dread created by thus catching the contagion, that people were unwilling to attend the sick. There was a mutual fear of visiting each other, and whole families perished in consequence of want of assistance ; and they who braved the danger, from a principle of virtuous affection in attending their sick friends, perished in heaps. . . . He adds, that the greatest part of the mortality was produced *by the communication of the contagion.*

“ In various parts of Diodorus’s history we find accounts of pestilential diseases as they occurred in different parts of the world, particularly among multitudes of people collected together for the purposes of war. A contagious pestilence broke out at Carthage at the time it was invaded by Dionysius, the tyrant of Syracuse. Diodorus, in his account of this pestilence, the symptoms of which he has described, particularly points out the infection and fatality produced by approaching the sick. *As the mortality caused by the disease was great, and as the at-*

*tendants upon the sick were cut off by it, no one dared to approach the infected, for all took the disease who had close communication with the sick; so that wretched indeed was the condition of those who were diseased, every one being unwilling to assist them; for not only they who were not bound by any tie of relationship deserted each other, but brothers and friends were compelled to neglect their nearest relations and companions on account of their dread of the contagion.*

“ In various parts of the history of the Romans by the Halicarnassian historian, we find accounts of pestilential fevers which spread havoc and destruction around; and we not only can discover that these fevers were infectious, by the manner in which they spread, but Dionysius expressly tells us that they who touched or lived with persons so diseased became infected. In the four hundred and fifty-first year before the Christian era, and about three hundred after the building of the city, a contagious fever broke out in Rome. *The most pestilential disease ever remembered brought destruction upon the city, by which almost all those affording assistance were cut off, and nearly one half of the other citizens were destroyed; neither were the physicians able to attend effectually the sick, nor the friends and domestics to administer the necessaries; for they who willingly attended others, by touching their diseased bodies, or dwelling with them, were seized with the same malady.*

“ Here we have both contagion and infection clearly stated, the former communicated by touching the diseased bodies, the latter giving disease to those who came within the concentrated sphere of its action. . . .

“ Interspersed in various parts of Livy will be found histories of pestilential fevers, the infection of which, it is expressly stated, was spread by contact; as in Lib. 3, c. 6; and Lib. 25, c. 26.

“ In the sixth chapter of the fourteenth book of the history of Ammianus Marcellinus, where he describes the vices of the people of Rome, he alludes to a disease of a highly infectious

nature, at a period of time about three hundred and fifty-three years after the birth of our Saviour. It appears to be almost impossible to say what the disease was; but it is sufficient to state that the account describes it to be so exceedingly infectious, that the servants sent to inquire after those who were ill, were ordered to undergo purification before they returned home."

The author, after citing various apposite passages from Virgil, Lucretius, and Ovid, showing that the ancients were acquainted with the infectious nature of plague, concludes as follows:—

"Instead, then, of having any doubts on the opinions of the ancients respecting the propagation of disease by contagion and infection, we have ample proof from the writings of their philosophers, physicians, and poets, not only of the existence of such an opinion, but of precautions taken to prevent the spreading of the infection." . . . .

That Hippocrates and other ancient writers had not the same precise ideas respecting the terms *contagion* and *infection* that have been adopted by the moderns, is perhaps true; but I think it can hardly be doubted, on reading attentively their works, that they considered many diseases to be catching, in the common acceptation of the word; and with regard to the plague in particular, it is not, perhaps, to be wondered at if many of them were unable to decide positively whether it was propagated by actual contact with the sick alone, or through the *medium* of the atmosphere generally; and, indeed, that question, as referable to this disease, has been a stumbling-block at a much later period among the moderns; nor, perhaps, is it even at this day perfectly set at rest in the opinion of some.

Although I am perfectly aware that among the ancient writers the word *plague* is used in a very indefinite sense, and although on different occasions it has been taken in a different acceptation by them, as there is reason to suppose that they designated by the term *plague* what were, strictly speaking, *endemic* and *epidemic diseases*, and those which are not unfre-

quently attendant on armies, which we know are sometimes of a very malignant type, yet I am of opinion that enough can be collected from their writings to satisfy us that they knew well what the true plague was; and we learn from these records the horror with which they viewed the invasion of this calamity. I grant that they were unable, in a satisfactory manner, to account for it; and in the absence of a more philosophical reason, the anger of the gods was assigned as the cause. Hence, propitiatory sacrifices were had recourse to, in order to appease and satisfy offended heaven, and avert the scourge. Immense numbers were cut off by it; and the disease, having exhausted itself by degrees, finally ceased, as happens in modern times in places visited by it.

It is true that the ancients were unable, in a satisfactory manner, to account for its introduction; for we find nothing in their works certain or conclusive on this point. But we know enough of this difficulty in modern times not to be at all surprised at this circumstance. On some occasions, we can no doubt explain distinctly the manner of its introduction, and even trace the road it has taken, from positive facts; but, on others, there is so much obscurity attending the former, that we are greatly at a loss in this respect. Nor, when we consider the matter attentively, is this at all to be wondered at, if we reflect that its introduction is often owing to a secret violation of the laws of quarantine, unknown at the time, the punishment of which is death. This want, however, of proof on some occasions would be a very insufficient reason for supposing that in this country, at least, it owed its origin to local causes—that it sprung up indigenously, or that the opinions of ancient writers, as to its being an unavoidable calamity sent from Heaven, should be exclusively adopted.\*

From the clear descriptions of this disease given us at diffe-

\* Some sceptical persons considered the plague which made such havoc in London and other places in England in 1665-6, as simply an epidemic, and owing to local causes.

rent periods by ancient writers, it cannot be doubted but that the invasion of plague among their contemporaries was not an unfrequent occurrence; and in the leading character of the disease they confirm our more modern experience; thus proving beyond contradiction that it is essentially the same disease at this day that it was in the earliest periods of which we have any records remaining.

But although we do not find in the recorded plagues of antiquity well-authenticated proofs of the precise manner in which it was introduced in any instance, yet we learn enough from the descriptions which writers have left us, that it was a calamity which travelled somehow from one place to another; and we are also informed that it was propagated by intercourse with the sick: and if there is any truth in the supposition that apparel and other things are capable of being impregnated with the *fomes* of some diseases,—which, I presume, few will be found to deny,—it is not assuming too much to suppose that the *fomes* of plague is amongst the number; and that it was propagated by that means, as well as by the sick themselves.

There is in the plague records of antiquity an apparent deficiency of information respecting the spreading of the plague beyond the sphere or neighbourhood of a city afflicted by it, (for immediately in the vicinity of such place it is allowed that the disease did extend itself;) which circumstance it may be necessary to explain here. In detailing the history of plague, the ancients, as I allow, were unable in a satisfactory manner to account for the precise manner of its introduction; yet they mention that a similar disease had occurred in other places some time before its appearance among themselves. In modern times, we are accustomed to trace from the most unquestionable proofs the progress of plague from place to place, almost without regard to distance, and after a considerable lapse of time. We know that the plague may be retained in certain articles for a very considerable period, and that the malady may be transported



by such a medium to distant countries. The ancients seem to have been acquainted with this property which articles have of retaining in them for a length of time the *fomes* of the disease, and of its being propagated thereby; and I question much whether even a person coming from a remote place, where the plague was raging, was considered by them at all capable of bringing the malady amongst them, or whether any sort of precautionary measures were adopted with respect to him and his effects. I believe I am not hazarding too much in supposing that they were entirely ignorant of these matters, and consequently unable to give us clear and distinct information on this important point. They saw the calamity overwhelming a city and its neighbourhood; they had heard that a similar calamity had raged in other places prior to its appearance amongst them; but they were unacquainted with the true cause of the visitation, which we now attribute to intercourse with some impested place; and, for want of better reasons, they imputed it, as I have already mentioned, to offended Heaven, or to the pestiferous air being blown from a distance among them. Nor is there anything either preposterous or absurd in the supposition that formerly, as well as now, intercourse existed among nations by means of merchandise, emigrations, military marches, &c., by which the disease might have been, and no doubt was, propagated.

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## CHAPTER II.

The Jewish Legislator acquainted with contagion, and aware that disease was propagated thereby—In aggravated cases, Moses directs the garments to be burned, and the houses to be purified—Modern writers of the same opinion as to plague—Plague effluvia considered—How introduced into the system—Inoculating for the plague.

I HAVE thus endeavoured to prove from the records of antiquity, written by profane authors, that not only plague, but other diseases also, were disseminated by contagion, or, in other

words, by intercourse with the sick ; and, that this was the opinion of several authors, whose integrity we are not accustomed to call in question. I will now for a moment turn to the page of sacred history, in which, although we find nothing very satisfactory respecting the true plague, we have enough to demonstrate the belief in the doctrine of contagion.

No one can well doubt, on reading the book of Leviticus, that the Jewish Legislator, in his orders and directions to the children of Israel, was perfectly acquainted with the propagation of certain diseases by contagion ; for not only does that opinion pervade his instructions to them, but he issues express orders to that people, with the view of preventing the contagion from spreading among them. Thus the 13th chapter of that book is very explanatory of the appearances of the leprosy ; and he there gives explicit orders for the separation of the lepers from the rest of the community ; also, that their garments should be well purified, and in the more aggravated cases, he clearly directs that the *clothes should be burned* ; conceiving, no doubt, that in the more virulent cases, it was extremely difficult to get rid of the contagious matter, and that it would be better at once to destroy them than to run any risk of using them again. In verse 46th of that chapter he says : “ *All the days wherein the plague (viz., the leprosy) shall be in him, he shall be defiled. He is unclean. He shall dwell alone ; without the camp shall his habitation be.*”

From the 47th verse to the end of the same chapter, directions are given respecting the garments of the lepers ; and in the 52nd verse, alluding to very aggravated cases, or what he terms a *fretting leprosy*, he says : “ *He (the priest) shall burn that garment, whether warp or woof, in woollen or in linen, or anything of skin, wherein the plague is, for it is a fretting leprosy ; it shall be burned in the fire.*”

In the following chapter, Moses is also very explicit in his orders to those who have been cured of the disease, to wash and purify themselves. Verse 8th — “ *And he that is to be*

cleansed *shall wash his clothes, and shave off all his hair, and wash himself in water, that he may be clean; and, after that, he shall come into the camp, and shall tarry abroad out of his tent seven days.*"

Nor did his precautionary measures extend only towards the preventing of the spreading of this disease by the sick and their clothes, but also to the houses of those who were affected with that malady; for in this chapter we find a long account of the manner of purifying those houses, and he gives particular directions that they should be emptied before the priest went in to see them.

I have adduced these passages to show that the doctrine of contagion was understood by the ancients, confirming the fact, not only by the testimony of profane writers, but also by what is recorded in the sacred scriptures; and with such convincing proofs before us, I cannot well conceive how any one can be so sceptical as to have any doubts upon the subject.

The remark I made relative to the indefinite acceptation of the term plague among the profane authors seems to be equally applicable to some parts of the writings of the sacred historian; for in the 13th chapter of Leviticus, from which I have quoted, this disease,—viz., leprosy,—concerning which Moses is enacting laws, is denominated in different parts of that chapter "*the plague of leprosy.*"

In the sacred writings, mention is also made of a sudden and destructive pestilence, with which it pleased the Almighty to afflict the Jews, as a punishment of King David for his vanity in numbering the people of Israel, and which in the space of three days destroyed 70,000 souls. See 24th chapter of Second Book of Samuel. This appears to have been rather a signal manifestation of the Divine power than the true plague; and, indeed, in no part of the sacred writings do we find a satisfactory account of that disease, although, from the term *plague*, which

frequently occurs in them, it is evident that such disease was known to the sacred historians.

The modern authors who have written on plague, and who considered it as a disease depending on contagion, are so numerous, that it is unnecessary even to mention all their names here. It would, however, be improper to pass by the name of Dr. Russell, a physician eminently qualified, from his deep research and extensive opportunities, to give his opinion on this important subject. He, in his excellent and elaborate work on Plague, is fully convinced of its being a disease contracted by contagion alone, and gives the most convincing proofs of its being so.

Dr. De Mertins, in his account of the plague which raged in Moscow, in 1771, is of the same opinion; and he is equally conclusive with regard to the facts, which he details, of that plague in the support of this view.

The British medical officers who served in Egypt, and were employed in investigating this disease, were almost without exception convinced of its contagious nature; and to all this weighty mass of evidence may be added our late experience in Malta, in the Ionian islands, and in the plague which appeared at Noya, in the kingdom of Naples. In all these places was the plague not only proved to be depending on contagion alone, but in all these instances it was suddenly arrested and finally extinguished by acting on that principle.

That there are, however, some few, possessing high professional acquirements, who entertain a different opinion with respect to plague is not to be denied; yet I trust that, at some future day, from an unprejudiced investigation of this important subject, and such additional facts as experience may afford, they may be induced to alter their opinion. But I should regret exceedingly that any opinion respecting the non-contagious nature of plague should ever induce the Government of this country (or indeed of any other) to act upon it, thus breaking

down the barriers of our self-preservation, and thereby laying us open to this dreadful malady.

That the matter of plague, whatever it may be, is highly contagious and subtle is beyond all doubt. Ancient writings as well as modern experience prove it to be so. But what its precise nature is,—whether a vapour or depending on *animalcule*,—I will leave to others to elucidate who may be fond of such discussions. Nor are we better informed of the precise period when it first made its appearance among mankind; yet it must have been of very ancient date; the earliest records extant, both sacred and profane, mention it.

It is perhaps difficult to say with precision, beyond what is known to occur from touching impested persons or things, how the *effluvia* of plague contaminates the system. My own opinion is, that this happens by absorption through the skin, from actual contact, or near approximation, which I consider as merely a modification of touch. Nor do I think it of any material consequence what part of the body is exposed to the impested object. Most commonly, for very obvious reasons, it is supposed to be introduced by the hands; yet I should conceive that, even without actual contact, we cannot with safety approach close to a person ill of plague, lean over him, and inhale the vapour arising from his body, as the medical practitioner does in his ordinary practice. This would, I think, be running too great a risk. Indeed, several writers on this subject warn us against approaching within a certain distance of persons ill of plague; and some have attempted even to define that distance, which they say should not be nearer than three feet. On this particular point I have nothing to say from personal experience, for I have been often in contact with my patients, and yet have escaped unhurt. Nor can I take it upon myself, from anything that has come under my own particular notice, to say how near one may approach with impunity; I, however, should think that to approach nearer than three feet would be running some risk, which may as well be avoided. I of course except those

whose duty it is to be in close attendance on the sick ; they must necessarily be always more or less in contact with them ; indeed, this is a distressing duty, but one which must be performed.

Another mode of introducing the plague into the system, which, by way of experiment, has been resorted to, is by inoculation, or inserting the plague *virus* into the skin ; and I have no doubt but this is as effectual a way as any other of contracting the disease. But inoculation can never be resorted to as a measure of precaution, such as is practised in the small-pox or the vaccine disease, since it is found not to mitigate the disorder ; and I am not aware that any one, having inoculated himself, and had the disease, ever recovered from it ; so that I should think that none but the foolhardy will attempt it again, seeing how ineffectual it is in diminishing or modifying the violence of the disease.\*

In Egypt, Dr. Whyte inoculated himself with virus from a bubo, and died of plague ; and I have heard, or read, somewhere, that Des Genettes, Physician-General to the French army, inoculated himself ; but having very soon afterwards washed the part, it did not take effect, as I presume it had not sufficient time to enter the system. It is generally believed, too, that Buonaparte also inoculated himself, washed the part immediately afterwards, and thus escaped. These two cases of exemption after inoculation speak for themselves, and require no comment. Political reasons induced these two distinguished men to act thus, as it was well-known that at that period a great dread of plague prevailed in the French army, and it became necessary to fortify the mind of the soldiery against it by making light of it by this deception.

\* It is a generally received opinion, founded on observation, that persons who have once passed through the disease do not die from a second attack ; at least, not in the same season. We had several instances of second attacks in Corfu, but they all terminated favourably at length, although these persons suffered a good deal from glandular derangement and ill health, after every plague symptom had disappeared.

Dr. Whyte's case was unfortunately one which showed the danger of inoculation, but the other two I have recited were not. Other cases have been mentioned in which inoculation is said to have failed, but I suspect, generally speaking, were owing to the same cause—i.e., washing the part before the *virus* had time to enter the circulation.

## PART II.

### ON THE ORIGIN & HISTORY OF THE PLAGUE, WITH AN ACCOUNT OF ITS SYMPTOMS AND PROGNOSIS.

#### CHAPTER I.

Egypt supposed the focus of plague—The diffusion of plague ascribed to preternatural phenomena, meteors, earthquakes, hurricanes, &c.—Plague an imported disease—It excited much attention about the time of the Crusades—Precautionary measures adopted against it about the same period—How quarantine laws came to be established, and gradually perfected—The exemption of Europe ascribed to these laws—Dreadful effects of fatalism among the Mahometans—Differently evinced among them and Christians—Fatalism on the decline in Turkey—The malady capable of being diminished, if not entirely expelled from plague countries—for instance, from Turkey in Europe,—unless owing to local causes, which cannot be removed or controlled—Doubts whether or not the plague is indigenous in Turkey in Europe—Policy of the Ottoman Porte with respect to plague—Quarantine laws, if successful in expelling the plague from civilized Europe, why should they not be so in expelling it from Turkey in Europe—Plague continuous there—Introduction of plague into civilized Europe attributed to imported contagion.

THE real origin of plague is, I believe, to this hour enveloped in impenetrable mystery; and although many attempts have at various periods been made to draw aside the veil that covers it, I question much whether any of them have been hitherto satisfactory, or even plausible; nor can I attempt to elucidate this obscure point.

Yet it is a curious fact that Egypt and the confines of Ethiopia have, almost by universal consent, been stigmatized as the *focus* from which this calamity has issued from time to time, and



which has from time immemorial caused such terror and consternation, together with such singular destruction of the human race, in almost every part of the habitable world. The cause of this malady in those countries has been said to depend on putrid animal *effluvia* from the putrefaction of immense myriads of locusts which contaminate the air; and which, it is said, have sometimes appeared in such incalculable numbers as to darken the face of the sky, and even almost destroy the whole vegetable creation in those regions; after which, having nothing left to feed upon, they die; and in their death, are productive of no less misery to mankind than they were whilst alive. The heat of the climate, aided by a particular state of the weather, is supposed to occasion in the immensely congregated heaps a high degree of putrefaction, which tainting the air with a most noxious *effluvia*, was considered by the ancients capable of producing this disease. The Nile, also, has come in for its share of blame, and has been considered as an active agent in producing plague by the retiring of its waters.

In the superstitious and dark ages of antiquity, the assistance of preternatural phenomena was called in to aid their speculative opinions in accounting for this singular and appalling calamity. Meteors, earthquakes, and hurricanes were supposed to be its attendant satellites, and to have carried it through the air for the destruction of mankind; and, I may add, that some of the more modern authors, equally unable to account for its introduction into particular places, and unacquainted with its true character, have adopted these opinions, but, I apprehend, with no better result.

Whether those causes, either separately or conjointly, have been the true cause of the plagues which have emanated from Egypt and the confines of that country, and whether all, or some of them still exist, and are capable of generating this disease, (supposing for a time that plague in all its ramifications had become quite extinct there,) is a question I am unable to answer. I will therefore leave it to those who may be more competent to

investigate the point. Yet, I believe it has been ascertained that immense swarms of locusts have at times appeared in places bordering on the Caspian Sea, in Tartary, and in other places, where they were very destructive to vegetation of every kind, and consequently productive of attendant misery, but still without generating or bringing into existence the malady in question.

Leaving, therefore, the origin or cause of plague in all its pristine obscurity, let us consider it as a disease imported from countries where, in a greater or less degree, it is known always to exist.

There can be no doubt, I think, that the plague appeared in Europe before the time of the Crusades, although that epoch has been considered by some as the period of its earliest introduction into this quarter of the globe. But the fact is, that everything connected with the Crusades excited such general interest throughout Europe, that, on the return of the Crusaders from the Holy Land, bringing the disease with them, it fixed unusual attention from the great mortality which it then caused in several parts of Europe; and from the lapse of time, during which little was recorded concerning it, which was clear and satisfactory prior to that epoch, it was considered in some degree a new disease, and as such, as I have just noticed, excited in an unusual degree the public attention. That, however, it was no new disease, but a fresh importation at that period, we require no other authority than that of Procopius, who speaks of it and describes it as a malady that had overwhelmed Europe during the reign of the Emperor Justinian. Other proofs might be adduced in support of this opinion, but this I conceive to be sufficient.

We have shown by quotation from the sacred writings that the propagation at least of some diseases by contagion was known to the Jewish Legislator, who enacted measures to prevent the spreading of such. We have likewise shown that profane writers were aware that other diseases, as well as the plague, were propagated by intercourse with the sick; but that

they were not fully acquainted with the extent to which this propagation was carried. Indeed, I do not recollect ever having read that, in any plague mentioned by them, its invasion into any place was strictly attributed either to persons or things imported from countries where the calamity was raging; and I apprehend that they were by no means well acquainted with that fact, although it is not to be denied that Moses, even at this early period, commanded precautionary measures to be carried into effect among the Jews.

The plague, therefore, having excited such universal interest about the time of the Crusades, a new epoch in the history of that disease commenced, and people began to find that by keeping themselves separate from the sick they escaped the malady, whilst those who continued their usual free intercourse with them, were attacked by it, and suffered in a much greater degree than they who kept themselves apart and secluded. I do not here suppose that their seclusion was always absolutely perfect; for it is not to be imagined that they then thoroughly understood the principle, or acted upon it to the full extent. Yet I imagine they saw enough of the advantages accruing from it on some occasions to rivet their attention, and impress on their minds the necessity of adopting that plan, and thus taking some steps towards their own preservation.

As the means of self-preservation in the time of plague came to be better understood in countries where it had frequently made its appearance, people began to reflect more on the subject. They saw, as I have just observed, that by avoiding the sick, or rather by not mixing promiscuously with them, as heretofore, many escaped the disease; and building on that fact, they advanced a step further, concluding that, if by separation they were exempted from the plague, so by avoiding altogether any intercourse with places where they knew the malady was raging, they might thus prevent the introduction of the disease amongst them. Thus, something in the shape of quarantine establishments began to be formed, not only to

prevent intercourse with places where they knew the plague to be raging at the time, but also to prevent free intercourse for some time after it was said to have subsided.

It is not reasonable to expect that establishments of this kind could at once approach perfection; and doubtless the system had many opponents; yet as in those places where the strictest rules were kept up, the advantages of such a system became manifest, that system was by degrees better understood, and ended at last in the adoption of a regular code of laws, known by the name of the *laws of quarantine*.

Although the general system of prevention was now pretty well understood and acted upon, yet every state did not adopt precisely the same regulations; but, on the contrary, some differed materially in this respect from others. It required time and experience to consolidate these laws; and, as men became more enlightened, and the subject was more studied and supported by facts, so these laws became more perfect and intelligible; by which means some of the laws, which were loose and inconsistent, by being modified, acquired new force and stability; whilst the whole became amalgamated and systematically arranged, as we see at the present day.\*

It is to the active operation of these laws that we are to attribute the general exemption of Europe from plague; and to the violation of them, either directly or indirectly, that its introduction takes place amongst us: and these facts I conceive to be so clearly ascertained, that it would be but a waste of time to employ any arguments in support of them; for although our mode of living, our manners and customs, may have been altered, and even a change of the climates may have taken place,

\* The first code of Quarantine Laws established in Europe, which seems to have been arranged on scientific principles, was that of Venice, by order of the Senate, in the year 1448; which was framed for the express purpose of preventing the extension of the malady by contact of persons in health with persons labouring under the disease, "*per impedire il progredimento della contagione de un individuo malato ad un sano.*" This was done after that city had suffered very severely from an invasion of the disease.

yet they are certainly not so entirely changed and essentially altered in every respect, as to prevent the germs of the disease from springing up occasionally, did they permanently exist, unconnected with the principle of imported contagion, in any country in civilized Europe. Nor can we suppose for a moment that the peculiarity of climate in any country of Europe, or that any other causes with which we are acquainted, would prevent the disease from running its usual course, if left to itself, were it to spring up there; knowing, as we do, the devastation it has made wherever it has been imported, until checked by the proper remedies; which devastation, I believe, has been as fatal in some parts of Europe as ever it has been in Turkey itself.

The vulgar belief that the plague is a dreadful scourge sent from Heaven, in which all human efforts are useless and unavailing, has slain its millions, and often rendered nugatory the means that were adopted to limit its ravages: and to this unhappy circumstance among the disciples of Mahomet is owing the singular apathy and indifference which are to this day exhibited amongst them with respect to this malady; for they not only hold it useless, but even criminal and impious, to interfere or to use any means towards arresting its progress, or putting a stop to its ravages; and whilst that prejudice still continues amongst them, there is no wonder that we hear of the tremendous havoc the disorder makes, and the length of time it continues to exist. If I am rightly informed, the plague which is now raging along the shores of Barbary, has existed upwards of two years without intermission, and still continues to extend itself, with different degrees of violence, according to circumstances.

Another misfortune attending this belief in fatalism, and which, I may say, is peculiar to Europeans, is, that when overwhelmed by the disease, they become maddened by despair, and, throwing off all restraint, give themselves up to a licentiousness and depravity at which human nature revolts; as occurred in the celebrated plague of Messina; in that of Mar-

scilles, in 1721; and, to a certain extent, in Moscow, in 1771. In this latter city, these excesses were put a stop to by the interference of the military, but not before the seeds of the disease were spread far and wide, as was lamentably proved by the increased mortality which took place soon after that dismal event.

This doctrine, however, of predestination is not now universally adopted even among the Turks themselves; for the more enlightened of them, seeing that the disease is so fatal to them, and that the Franks escape, comparatively speaking, with impunity by shutting up, begin now to open their eyes to the propriety of using precautionary measures, and with good effect. I have been told that Ali Pacha of Albania—a Greek by birth, but in religion and habits decidedly a Turk—has more than once had recourse to measures of restraint, to prevent the extension of the mischief, and has been successful. The Vizier of Grand Cairo, too, if report speaks true, has lately carried into effect the same system. Other instances in point might be adduced if necessary.\*

Could the followers of Mahomet be prevailed upon to put in execution the same vigorous and decisive measures for arresting the career, and finally eradicating the malady in the countries possessed by them, which for such a length of time have been adopted in Europe, with such evident advantage to mankind, I think it is not presuming too much to suppose that similar results would follow there; and even if they were not in the

\* This was written when Mehemid Ali was only Grand-Vizier of Egypt, a man of enlarged and comprehensive mind, whose name and exploits have since that time become celebrated over Europe. At that time, his active and discriminating mind saw the necessity of adopting some quarantine regulations, which were put in force, although it is not likely that they were very perfect.

I have been informed by Sir Gardener Wilkinson, who has resided several years in Egypt, and has given much valuable information to the public respecting that country, that Mehemid still zealously maintains restrictive measures in his dominions, being perfectly aware of the advantage of doing so both to commerce and the general health. I am, however, not fully informed of the precise regulations which he has thought proper to enact.

first instance to carry them into the same rigorous effect, which is done in some places, they would find certain benefits arise, were it but partially adopting them, which in the end would lead to their general use on the same principles as are now carried into effect amongst Europeans.

This is, however, supposing that the disease does not originate in Turkey in Europe, and is not indigenous there, but imported into that country from some other place, which it is said frequently to be.

But if this disease originates in Egypt, owing its annual appearance, in one place or other there, to local causes, and is thence diffused by intercourse into other parts of the Turkish empire,—an hypothesis which I cannot take upon myself either to confirm or refute,—then it follows that any precautionary measures in Egypt itself must be perfectly unavailing for its total extinction; and all that could be done, after having once driven the malady out of the rest of the Turkish dominions, is to put in force the same means with regard to Egypt that have banished it from the rest of Europe.

But if, as some imagine, the disease is indigenous in Turkey in Europe, and owes its origin to local causes incapable of being controlled by human power, which, until clearly proved to me, I can never believe, then it is also obvious that any mode of expelling it thence must be equally unsuccessful.

It is needless here, and indeed it is at the best but very unsatisfactory, and extremely doubtful, to enumerate the various local causes which have been assigned by travellers and writers as capable of producing the plague in Turkey, as well as in other places. They are merely suppositions, unsupported by proofs; and although such may, and no doubt do, produce certain diseases, yet I conceive them to be incapable of generating the disease in question.

It is, perhaps, the policy of the Ottoman government not only to keep alive the belief of its *endemic* nature, but to use it

as an arm of defence against the European powers ; and it is, I believe, not to be doubted but the treasury of the Sublime Porte is often benefited by the ravages of the plague. It is therefore not to be expected that any effectual means, in the present state of things, will be taken by that government to exterminate the malady. Should it happen, however, when, in the course of time, some nations fall and others rise up, and become formidable, that this government should be subverted, and replaced by a liberal and enlightened administration, adopting and putting into effect the same views with regard to plague which have been successful in expelling it from civilized Europe, I will venture to predict that the results will be the same. At all events, the hypothesis which I have formed on the subject will be put to the test, and time will show how far it is well founded.

If in the extensive countries comprehended in civilized Europe, and in a great part of the rest of this quarter of the globe, which may still be considered, if not actually in a state of barbarism, at least approaching it, where there is almost every variety of climate, the extremes of heat and cold, various usages, manners, and differences in the modes of life, together with an endless variety in point of local situations, the plague has been expelled from them for centuries past, there can be little doubt, I think, (always supposing that it does not originate there,) but that it may also be excluded from Turkey in Europe ; for until it is proved to my satisfaction that the invasions of plague, with which the various parts of Europe, exclusive of Turkey, have been visited, have originated where they first appeared, I hold every such invasion to have been produced by the seeds of the disease being imported from some other place ; and this fact has been so clearly established in such a variety of instances for some centuries past, as well as on several recent occasions,—viz., in Malta, Corfu, Noya, and Cephalonia,—that we can have no good reason for refusing to adopt this opinion ;



and although some centuries past, when this subject was not so well understood as it is at present, when there was so much credulity, and so many superstitious inferences afloat respecting this disease, some doubts of its being an imported one may have arisen, yet the more recent instances which I have quoted throw aside those former doubts. They are so well authenticated, and have been so satisfactorily traced from their first introduction till their final eradication, that there appears to be no room whatever for doubt on the matter.

I am certainly induced to question the opinion which some have adopted, that this disease originates in Turkey in Europe; although there is not the least doubt but that it is always in a state of greater or less activity in some places there, in consequence of the intercourse betwixt places, and a total disregard to the measures of prevention and of subsequent purification after the disease has subsided. To me it appears that, with regard to Turkey in Europe at least, the disease does not originate annually, or even in two or three years, or, indeed, at any stated time, from local causes; but that it is there a *continuous disease*, kept up from time to time by the *semina* being never thoroughly destroyed, through neglecting the means of subsequent expurgation after the disease has ceased; for it is this complete and perfect expurgation of every thing, person, and place that may retain the matter of plague, which alone can secure us from a subsequent attack: but if this is attended to, we have no reason to dread the return of the disorder, except from a fresh introduction or importation. Thus it is that the malady is constantly kept alive in those countries, and appears from time to time there. Thus, in my opinion, it is propagated, from place to place, by intercourse with infected places, and in a particular manner has attended the followers of Mahomet in all their movements, both commercial and military.

From what I have said, it will be seen that I attribute the various invasions of plague into civilized Europe to importation

from places where it was either raging at the time, or had existed some time before, by means of persons or effects contaminated with matter of plague, and not to any inherent or specific causes existing in this quarter of the globe. This I consider not only as an established fact with regard to a large portion of Europe, at least, but also as a matter for self-congratulation; for I think nothing can be so appalling as the idea that this dreadful calamity may spring up indigenously even in England, and that we are liable, from a combination of the alleged causes, unconnected with importation, to be visited by this destructive disease. Yet this opinion has its advocates at the present day.

On what other principle are we to account for the long exemption from plague which some places have experienced? Is it not reasonable to suppose that in the course of a century the causes which are alleged to be capable of producing the plague must have occurred and produced the disease again? But is this clearly ascertained to have ever occurred, without reference to the possibility, nay, probability, and in recent cases positive proofs, of its having been imported from another place?

In the more recent plagues, it is proved beyond contradiction that the places in which it broke out enjoyed their usual health until the seeds of the malady were imported. Even the dates of this importation have in some instances been fully proved; and from these periods this calamity (indeed, with reference to other common diseases, I may designate it *this new disease*;) appeared, and ran its usual course until effectual means were taken to put a stop to it; and that, these being put in execution, it disappeared altogether in a short time; in fact, was completely destroyed root and branch; after which the people enjoyed their usual state of health.

In England we know that there has been no plague since 1666. When in Corfu, I learned that there has been none in

that island for above a century. In Malta, they had none since 1743 (when a monument was erected to the then Grand Master for having arrested it) until the year 1813. In France there has been no plague, beyond the precinct of a lazaretto, since the well-known plague of Marseilles in 1721; and other countries have experienced a still longer immunity.

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## CHAPTER II.

Plague imported by sea—Shown to be an imported disease by its being suppressed in lazarettos—Plague also imported by land—Generally accompanying the Mahometan armies—Thus traced to Jassy, Moscow, &c.

It is a curious fact, and one from which much is to be deduced, that the plague generally appears first in a place near the sea, and in places adjoining those countries where it is usually prevalent. This circumstance, which is not to be doubted, is in my mind an additional proof that the plague is an imported disease. The fact is as I have stated, yet I do not consider it as quite conclusive on that point; for we know enough of the plague, and of the facility with which it may, by being closely shut up, be transported to places at a great distance from the sea, to doubt its being carried into the very interior of any country, and that it will first appear there, where the things which contain the contagion are exposed, supposing that the disease is not in the constitution or the clothes of the persons engaged in transporting them thither: and this, I am fully persuaded, is not only quite possible, but has actually been the case, and probably is the cause why the plague has been considered as springing up indigenously.

But we have the most convincing proofs that the plague is an imported disease, from the well established fact of its having been brought into several lazarettos; and there, by the application of the proper remedies, arrested *in limine*; showing not

only, in the clearest manner, that the true plague was actually imported into them, but also that, by being confined, it did no mischief beyond the walls of the lazaretto where it was landed. This fact also proves another important circumstance, the absurdity of the opinion that the air becomes contaminated with the plague contagion, and hence is capable of extending the malady by assimilating with and poisoning the mass of atmospheric air. For if, as some have hypothetically imagined, one plague patient is capable of contaminating the air to an incalculable extent, how does it happen that it has been brought into lazarettos, and fairly extinguished there, almost without its being generally known that it had been introduced into them, and without doing any harm beyond those well-regulated establishments, as appears to have been the case in Leghorn, Venice, and other places? When at Leghorn, with the British army, in 1814, I was informed by the late Mr. Polhill, surgeon to the factory there, that the plague had been frequently brought thither to the lazaretto, and was speedily extinguished by the adoption of the proper remedies; and that it did no further mischief is clearly seen in the fact, that if left to itself, or if it had not been speedily suppressed, it would soon have spread death and consternation in every direction, which could not have been concealed. I was not informed of the particular detail of these cases, which occurred either in Leghorn or in Venice, but merely told, as a matter of fact, that the plague had actually appeared in them more than once, and had been suppressed there.\*

\* I have since seen Dr. Granville's admirable letter to the Right Honourable Mr. Robinson, president of the Board of Trade, in which allusion is made to plague having been imported into the lazaretto of Leghorn. He there says in a note to that letter, page 99, *Fodera and Nacquart both state that the officers of health at Marseilles, Leghorn, and Toulon assured them that cases of plague broke out occasionally in the lazarettos of those towns, after the arrival of vessels from the Levant; and that the disease is extinguished immediately by vigilant segregation.*—*TRAITE DE MEDECINE LEGALE*, 1808; and *DICIONNAIRE DES SCIENCES MEDICALES*, 1810. General Spanocchi, Governor of Leghorn in 1814, assured me that two cases of plague had shortly before occurred in that lazaretto.

Thus it is proved that the plague is imported by sea; and the consequence is, that it first appears, for very obvious reasons, in places adjoining the sea-shore. Let us now view it as imported by land from plague countries, and the conclusion will be the same.

It would be superfluous to state the various occasions on which the plague has been introduced into the provinces bordering on Turkey, from the movements of the Mahometan armies, which were almost always accompanied by this disease, and were often as fatal to their antagonists as the sword or the cannon, at times almost desolating the countries that happened to become the theatre of their warlike operations; for no nation has ever been long engaged in war with them without having been attacked by the plague. Hungary, Poland, and Russia have all had reason, for a long period after, to remember the ravages of this frightful calamity thus introduced among them, and which ultimately led to the creation of rigid quarantine establishments on their frontiers, which establishments have proved eminently successful in the time of peace, as well as conducive to their security when they were actually engaged in war with the Turks. Spain and Portugal, too, during the time these countries were occupied by the Moors, frequently suffered from the invasions of plague. I understand that the sanatory regulations adopted by the government of Austria throughout their empire are remarkably well arranged, and conducted with scrupulous exactness.

The plague which desolated Moscow, and other parts of the Russian empire, in 1771, was ascertained to have been carried into Jassy by the Turkish army; and soon after, the troops in that city became impested. It was not at first generally known to have been the plague, but supposed to be a fever of a very malignant nature, although some of the most eminent physicians pronounced at once the malady prevailing there to be the plague. From thence it was carried by the soldiers going from Jassy to

Moscow, where it first appeared in the military hospital. The city soon became overwhelmed by it, and from thence it afterwards spread into other parts of the empire.

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### CHAPTER III.

The Franks escape by shutting up—Plague most destructive in crowded places, and among the attendants on the sick—The Foundling Hospital in Moscow preserved by the jealous care of De Mertins, in keeping it insulated—Danger of permitting intercourse with, and of receiving strangers in the time of plague.

I AM, as I have all along declared, most fully persuaded that the plague is only communicable by contact, and propagated by intercourse with impested persons and goods; else, why should those escape who studiously avoid all intercourse with either by shutting themselves up, as the Franks invariably do, when once the malady is ascertained to have commenced its ravages? For it is a well known fact that in plague countries, on the alarm being given of the plague breaking out, and when its existence is positively ascertained, they begin to shut themselves up in their houses, and remain in strict quarantine until they conceive the danger to be over, and by this seclusion, they, generally speaking, escape the disease. Nor is it any argument to the contrary that even some of them become attacked, as they have, in some way or other, from the non-observance of strict quarantine, become exposed to it, or have gone abroad too soon; for the desultory cases which occasionally appear amongst them I impute entirely to these causes. I admit that it may sometimes be difficult to know how they got the disease amongst them, because no one will confess himself guilty of an open or secret violation of the laws of quarantine. Besides, a breach of them may happen from ignorance, inattention, or the obstinacy

of their servants, which it is difficult or impossible at the time to ascertain. But in either case, the consequences are the same in the introduction of the disease.

Yet, even with these exceptions, the fact is clearly proved that those do escape who shut themselves up, and avoid all intercourse, whilst the disease is making considerable havoc among their neighbours without.

To suppose, therefore, that they would voluntarily seclude themselves from all society, beyond their own immediate families, and endure all the vexatious privations, confinement, and a certain loss of property, if they are engaged in commerce, as almost all the Franks are, and being thus necessarily prevented from looking after their own affairs, and following their usual pursuits, without a firm persuasion that by so doing they would escape the malady which is making such frightful havoc among their less careful neighbours, is opposed to all the rules of common sense and daily observation. They know by experience, which is the best teacher, that by thus shutting themselves up, and observing a rigid performance of quarantine, they will escape unhurt; and the result proves they are right: nor are the accidental cases that occur amongst them, even should some of them not be satisfactorily accounted for, sufficient to shake their confidence in these measures of preservation. They know that their exemption from plague depends on their strictly adhering to rule; whilst neglect or inadvertence will as surely subject them to attacks of this disease.

Why, I would ask, is this disease so destructive among the poor, and those who are crowded together, where necessarily a more promiscuous intercourse takes place, than amongst the rich, in houses less confined, and affording more roomy accommodation? It is not alone owing to the simple fact that the houses are larger and better ventilated, but that there is less promiscuous intercourse amongst them, than amongst the poor in common life; and because, when once the disease gets into these miserable, ill-ventilated hovels, the persons being all

huddled together, lying perhaps two or three in a bed, the *fomes* ferments as it were, and acquires more activity. This we frequently see in the fevers of this country. And why do those persons employed immediately about the sick suffer in a much greater proportion than others?—a circumstance that has been noticed in all plagues; for it is a notorious fact that dreadful mortality takes place amongst those unfortunate people, as well as amongst those employed in burying the dead, and in the service of expurgation. And why, I would also ask, are some places and houses preserved in the very midst of the malady, by being carefully insulated, as was the case in the Foundling Hospital, in Moscow, which was literally situated in the very hot-bed of plague, as described by De Mertins in his account of that plague. It is very true that, from a violation of quarantine laws, the plague got admission into that building more than once; but it is also true that by watching over everything with the most jealous anxiety, De Mertins was enabled to lay hold of the persons ill of the plague who were guilty of the breach of the quarantine rules established by him, before they communicated with the other inmates of the hospital, and thus effectually prevented the mischief that would have followed, had they not been detected in time.

There can be no doubt but the active exertions of Dr. De Mertins, and his well-regulated quarantine restraints, preserved that hospital from the plague, or rather arrested it promptly when, by a violation of his regulations, it had been introduced; and a strong proof is afforded of the benefit arising from the system he adopted, and of what may be achieved by an active individual. Yet it might have happened that all his exertions were rendered nugatory to a certain degree by the negligence or bad conduct of some of the confidential persons serving under him; for if, as sometimes happens, men in a confidential situation become so abandoned and lost to all sense of honour, and are so wicked and regardless of the sad consequences as to trample on the sacred laws of health themselves, or



to wink at their infraction by others, no place can be safe, and no punishment can be adequate to the offence. It is truly melancholy to reflect, yet it is nevertheless true, that if by any means one individual had clandestinely escaped from the hospital, when by great exertion and purification it had been got under there, and had had communication with the impested persons or effects in the city, and returned again without being discovered before his having had communication with the inmates of that hospital, he might have carried the disease again into the very heart of that establishment, after all that had been done, and in all probability it would have been as fatal as it was in the rest of the city. As it was, the soldiers and workmen employed about the hospital were guilty of repeated violations of quarantine ; but the active exertions of Dr. De Mertins prevented, or rather checked, the mischief by causing the speedy arrest of the offenders, and those having intercourse with them.

This shows the indispensable necessity of preventing by every possible means all intercourse between healthy and unhealthy places in time of plague ; and although a person to all appearance in perfect health should escape from a place where the plague is raging, yet it would be madness to receive such a person or to have intercourse with him until his health is proved to be perfect and free from plague, which can only be done by keeping him for a certain time in strict quarantine.\*

\* Whilst on this subject, I may mention what occurred to myself and the gentlemen who were with me when I arrived at the lazaretto of Ancona, on my return home from the Ionian Islands.

On mentioning my name to the superintendent of the lazaretto, he said he knew me by report ; and asked whether I had not been in charge of the plague-district of Lefchimo, in Corfu ; which of course I immediately acknowledged, hoping, at the same time, that he would not prolong the quarantine on that account, as I had not had the plague whilst so employed, although my health had suffered from the great fatigue and anxiety. He told me he did not know that he could shorten the period of quarantine ; but that, as he saw we were all in apparent good health, he would write to the government at Rome to that effect. He desired us all to handle and open out every part of

## CHAPTER IV.

The plague not communicable, like epidemic diseases, through the medium of the atmosphere—The efficacy of well-regulated cordons, as a security against the malady, as seen in Lefchimo—The sense of danger a good preservative—The foolhardy and those who violated the laws of quarantine the sufferers—Persons impested sometimes unconscious of their being so.

If the plague were communicable through the medium of the atmosphere, like epidemic diseases, no precautionary measures could be of any avail, and no plan with which we are acquainted could preserve us from this awful calamity, as the grand principles of separation, segregation, and absolute non-communication would be useless and of no effect. Then, indeed, it might be said, that the whole code of quarantine laws are not only inefficient, but cruel in the extreme. The contrary, however, is the fact; and there is nothing more clearly established among enlightened nations than the advantages of a well-regulated police, both as a prevention of the evil and a means of suppressing it.

our baggage, even to the most minute article, as well as our bedding. This operation he superintended in person, standing to windward all the time. This he desired should be done twice a day for seven days when the weather was fine, which orders were implicitly complied with; and at the end of thirty days, including the day of admission and discharge, being all in health, we were liberated.

The object he had in view by insisting on our handling everything was, that if any fomes of plague existed in any part of our baggage, we ourselves should have been the very first to suffer; and reluctance to comply with his orders would have strengthened this suspicion, and prolonged the period of quarantine. I may remark, however, that having touched and handled every article we possessed, I conceive that he might have liberated us with perfect safety at the end of fifteen days, as I do not know, and am not aware of, any well-authenticated case of plague occurring after fifteen days from the last contact; indeed, after eight or ten days, I consider the person safe; and the knowledge of this fact ought, consequently, to shorten the period of quarantine.

In the plague of Lefchimo, we had ample opportunities of knowing that the air was not vitiated during the prevalence of the malady there; and we had the best proofs of what may be effected by a well-directed police. In an extensive tract of country—viz., about forty miles in circumference, where there were fourteen villages impested—the plague was never allowed to pass the principal *cordon*. The greater part of the medical and military officers, with the troops employed on that occasion, were lodged in these impested villages. The guards were continually traversing them, and performing their duties in and around the camps where the plague was raging, as well as around the barrier of the pest-hospital itself; and sometimes, so close were they to the patients, that had they been inclined, they might have touched them; yet, in no instance was any person attacked from these causes; and I am bound to attribute the health of both men and officers to strict attention to, and conformity with, the orders issued (the necessity of which was strongly impressed on their minds), to avoid all contact either with impested or suspected persons or things; and this was so well understood latterly, that from a regard to their own safety, and a full belief that by adhering to these injunctions they would escape the malady, it would have been difficult to have persuaded some of them, even by any bribe, to deviate from their orders. As a proof of this, I may mention that one of the muleteers employed in carrying provisions from the commissariat dépôt, stationed at Egripos, to the camp, by accident dropped his handkerchief close to one of the people who were waiting to receive their provisions. He was soon after told of it, but would not take it up again, for fear, as he said, that some one having the plague had touched it.

Yet some accidents of plague occurred amongst the troops; and a very melancholy one happened in the detachment of De Rolle's regiment, stationed in Clomo, as will be noticed hereafter. But these accidents were invariably traced to violations of quarantine by those who had basely left their posts in search of

wine and plunder in the impested houses, and who had joined their comrades without this circumstance being known. It is distressing to think that the innocent should thus suffer with the guilty; but so it was in these instances, and so it must be in the plague.

I am fully persuaded that a person may appear to be in perfect health and yet have the plague in his constitution or in his clothes without its being known even to himself. We had a remarkable instance of this in the plague of Corfu. One of the Greek papas belonging to Anaplades, named Metaxa, soon after the breaking out of the malady in Marathea, went to that village to assist at a congregation of the clergy there for burying the dead, and offering prayers to Heaven on the melancholy occasion. After he had finished his sacred duties, he returned to his family in Anaplades, amounting at the time to eight souls, including himself. A few days after his return home, his family began to fall sick, and in a few days more, six out of the eight individuals were either dead or dying. His only surviving brother, who as yet remained in perfect health, seeing the dreadful state of the family, made his escape from the house, and lived in a state of concealment in a distant part of the country, subsisting on wild herbs, and whatever else he could find, for some time afterwards.\* The papa himself, the author of all this mischief,—ignorantly so, I allow,—was among the last attacked, and was afterwards taken to the hospital, where he recovered; and as far as I know, he was the only one of the family who survived. For a long time he persisted in saying that he was sure he had not brought the plague into the family, although he readily allowed that he had been at Marathea, to assist at the ceremonies there, and had had free intercourse with the sick; and that, as far as he was capable of judging, he thought the disease there the same as that in his own family.

\* I was never able to ascertain whether this man had the plague or not; nor, indeed, was I able to find him out, or get any account of him afterwards.

It was in this manner that the disorder was first introduced into Anaplades, and soon spread over that village; for until his arrival from Marathea, there had been no sickness for some time before, except a few cases of intermittent fever, to which the inhabitants are frequently subject.

I myself was not in Corfu at the time this occurrence took place; but the account which I have given was reported to me by several persons, and among the rest by Metaxa himself, who confirmed the account, so that I have no reason to doubt the truth of it; and the impression on my mind is, that he got the plague at Marathea, and returned with it to his own house.

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## CHAPTER V.

Sad consequences of dilatory measures on the breaking out of plague—Necessity of choosing for the management of plague matters men of practical experience and integrity—Necessity of liberally rewarding and placing above temptation persons in plague service—Danger of being thrown off our guard by the lulling or apparent cessation of the malady—Plague not so regular in its periodical visitations as has been supposed—Prevailing notion of the Franks on this subject—In plague countries the malady is not always in the same state of activity at the same periods—Is not affected by extremes of heat and cold—These may, however, modify its type—Any supposed benefit arising from these extremes not to interfere with the plan of management for suppressing the calamity.

THE history of almost all plagues shows us how greatly it is to be deplored that much valuable time is lost in the beginning, before the prevailing disease is pronounced to be the plague; and how unwilling people are to believe it to be so, even when decided symptoms manifest themselves, until they are perfectly overwhelmed by it, when it becomes impossible by any human means to put an immediate stop to it. This difficulty is always in proportion to the extent of a plague; for when immediately pronounced to be such, and before it is allowed to extend itself by communication, it may be easily suppressed at its commencement,

but becomes a most painful and laborious operation afterwards. It is owing to this unwillingness to allow that the plague exists, that well-arranged plans for its suppression have been frustrated, and that disgrace has sometimes been attached to these plans; for it is not to be supposed that those who disbelieve its actual existence in a place will become easily reconciled with the orders issued unless they are compelled to do so; and, indeed, in some cases it will be found that nothing less than strong measures will do.

I remember, for instance, that in the plague of Lefchimo, one of the principal men in that place, the primate, or chief magistrate of Milichia, named Canta, whose wife, a fine young woman, with her child, were attacked towards the decline of the malady by the disease, and died with the most unequivocal symptoms of plague, persisted to the last in maintaining that they had not the plague, but that the prevailing disease was a different one. This man complained most grievously of my supposed cruelty in sending his wife, then in a dying state, to the pest-hospital, although she had a large bubo in the axilla, a carbuncle in the ham, and *petechiæ* on her body. The poor woman died in a few hours after her admission, and shortly after her infant too, who was between two and three years old, covered with *petechiæ*. On the first appearance of the disease in this family, which consisted of four persons, the whole were immediately removed from their house. The two sick—viz., the mother and child, were sent at once to the hospital. The man himself and the maid-servant, who appeared to be in perfect health, were put into the class of *strongly* or *highly suspected*, and kept rigidly apart from all the others. They did not contract the disease, and were finally released and sent to their homes at the expiration of their quarantine, during which they were employed in purifying the effects they had brought along with them, so as to remove all suspicion from them. The maid had carried the child to the camp from Milichia, a distance of about five English miles; and I learned that Canta himself had slept

with his wife the night before. Yet they both escaped. As both the master and the maid-servant were in health at the time I ordered them into the camp, the primate was extremely unwilling to be subjected to the necessary restraints; but I was obliged to act towards him with firmness and decision.

The death of this beautiful young woman, whose name was Regina, made a great sensation in the town and neighbourhood. She might well have been named the Queen of Lefchimo, for she was one of the handsomest women I ever saw.

In conducting the matters of police in the time of plague, it is to be observed that the necessary arrangements, at least on an extensive scale, cannot be framed and carried into effect at once, except by those conversant with these various duties. It is practical experience alone, aided by a thorough knowledge of the subject, that can direct the necessary operations; and most commonly many of the persons employed are to be taught the parts they have to perform, else, by ignorance or mismanagement, they may be the means of extending the very disease they are called upon to suppress.

In the selection, therefore, of persons to be employed in the higher and more confidential branches, it would be well to choose only those on whose integrity we can depend, and who possess strong minds; such persons ought to be most liberally rewarded for their services, and placed above all temptations to swerve from their duty.

It too frequently happens in the time of plague that the very persons employed in suppressing it, from an idea that all danger is over, (merely because the disease is lulled for a time, and which indeed is a remarkable trait in its character,) begin to relax in their duties. This is a serious evil, and cannot be too sedulously guarded against. The calm is most apt to deceive us at the beginning, when doubts are still entertained respecting its after nature, and the general shock and consternation caused by its existence being proclaimed have subsided. At this moment of hesitation and doubt, the report of the physicians

and surgeons is favourable, in as far as regards the general state of the public health ; so that, perhaps, it will be found that there are fewer sick than usual. This was the case in Moscow, Malta,\* Corfu, and many other places ; and this fatal security, if not guarded against, will always be productive of the direst consequences afterwards ; for it is during this interlude, if efficient measures are not in force, that the malady is extending itself by propagation, and becomes so difficult afterwards to be remedied.

It has been commonly alleged that in plague countries the disease is regular in its approaches and termination, as we see in autumnal fevers ; that it begins in September and ends in June. But I apprehend, if we narrowly inquire into the matter, that we shall find this not strictly to be the case, but that it often appears earlier, (and the earlier, the more destructive it is supposed to be that season,) and, in fact, does not terminate on St. John's day, as is commonly believed, but continues, or at least may continue, more or less all the year round in some place or another. I know that the Franks are strongly impressed with the belief that if they pass that day, all is well, and that they are then in the habit of congratulating each other on their escape for the season. But some of them have had occasion to regret their laying aside their preservative measures so soon, on their becoming afterwards impeded from intercourse with the people.

It is certain, I believe, that in plague countries the malady has raged violently in some places, when in others, at the same period, it has created no particular sensation, or perhaps did not even exist. Thus it has been very destructive in Constantinople at a time when it excited very little attention in Grand Cairo ; and the same may be said of other places. With regard to civilized Europe, I think it will be found, on examining the

\* Dr. Calvert, in his papers on the plague of Malta, says that the general report of the physicians continued favourable for a period of about ten weeks after the introduction of plague into that island.



annals of plague, that it has been in a state of activity in one place or another all the year round. And I do not imagine that its activity or inactivity can at any time be fairly attributed to the season of the year, unconnected with other circumstances. Without meaning absolutely to deny that season abstractly has no influence on plague, I give it only as an opinion that this is at best but doubtful.

I know it is very commonly believed that extremes of heat and cold have an effect in mitigating this disorder; and some respectable writers are of this opinion.\* It is perhaps true that the mortality has been diminished during excessive cold weather on some occasions; but it is equally true that on other occasions the mortality was as great as at any other time. The same may be said with regard to heat. Dr. De Mertins, in his account of the plague of Moscow, seems to think that the pestilential *virus* was greatly weakened by the excessive cold of winter, when by Reaumur's thermometer it was shown to be from 16 to 22 degrees below the freezing point. Let it be recollected, however, that the disease first made its appearance there in the end of November, when the degree of cold is always excessive, and continued to be propagated during the cold weather. Nor did it appear at all to be influenced by the heat there, which is sometimes as great as 90 degrees of Fahrenheit's thermometer.

Speaking of the effects of heat and cold in plague, Sir James McGregor, in his *Medical Sketches*, says, pp. 110-11, "In one circumstance, there is a very generally prevailing opinion in regard to the plague—viz., that extremes of heat and cold stop the progress of the contagion. If this be true in regard to heat, it did not appear to be so in the army in Egypt in regard

\* If ever the one or the other have been of service in plague, it must have been owing to a different cause from their immediate agency. It may have been from their preventing the propagation of the disease, when persons are not tempted to go so much abroad; and thus far they might probably be of service.

to cold. The period at which the plague raged most was in the coldest months."

Although I am fully persuaded that neither heat, nor cold, nor local situation will effectually either prevent the breaking out of the disease, or hinder its spreading, when it has once begun its course, I am disposed to think that they may have some effect in modifying its *type*, and in varying some of the symptoms. Thus, it appears to me that the *pneumonic* affection which was so common among my patients in Egypt, might perhaps be attributed to the cold weather at the time. But this I consider rather accidental than necessary. And Sir James McGregor ascribes the *intermittent* and *remittent type*, in which the fever made its appearance when the Indian army was attacked by the plague at El Hamet, to the marshy situation of that encampment. He remarks, at pp. 111, 112, that the cases sent from the Bengal Volunteer Battalion, and from the other corps, when the army was encamped near the marshy ground at El Hamet, were all of the *intermittent* or *remittent type*.

Presuming, therefore, that a certain modification of symptoms may take place from extremes of heat and cold, local situation, and other circumstances, this will tend in some degree to reconcile the discordant or diversified accounts given by authors who have written on plague, which are sometimes so different, as would almost lead to an opinion that they were not treating of the same disease; but this position being admitted, the mystery which hangs over these contradictory statements becomes quickly unveiled.

I have no objection whatever to the opinion being entertained that both extremes of heat and cold mitigate the violence of this disease, provided it does not induce us to relax in our operations for suppressing it. But we must not be led away with that idea, and in trusting to it, remain in a state of inactivity. We must go on with our plan of management, without paying any attention to heat or cold; and we shall ultimately succeed, if things are properly conducted.

Entertaining the idea that the malady will be mitigated by these supposed causes, may be sometimes of service in removing the despondency which is apt to hang over the mind in the time of plague, and which, in spite of all our efforts to prevent it, will affect even the strongest mind at times ; and in so far as that belief tends to fortify it at a time when it is ready to sink under that accumulated horror and distress which cannot be known but by those who have been engaged in this duty, it is very proper, and even desirable, for the mind brooding over the misery and woe which everywhere surrounds us, is apt to become weak and melancholy, and requires every possible encouragement and support.

It ought always to be kept in view that at whatever season of the year the disease happens to appear, whether in the spring or autumn, in the heat of summer or the cold of winter, we are not to trust to the chance of its not being very destructive, but we must adopt the proper measures with firmness and promptitude from the very commencement, and continue them till the disease is finally suppressed, or we shall have cause to regret the relaxing them, and perhaps have the work to begin over again, when we least expect it.

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## CHAPTER VI.

### Suddenness of the attack of plague exemplified.

It has been said that at times the pestilential attack has been so sudden and violent, that persons have all at once dropped down dead on opening a trunk or even a letter where the contagion had been confined. I am inclined to doubt this, at least to this extent ;\* but that its attack is sometimes very sudden,

\* On this point—viz., the time when plague symptoms begin to show themselves after the first exposure, Dr. Russell remarks, in page 195, “ In what time after its reception the pestilential virus begins to discover itself is a point of

is obvious from various circumstances that occurred during the plague in Lefchimo.

Shortly after its breaking out in the village of Perivoli, some of the robes belonging to one of the clergymen, who had died of the prevailing disease, were carried to one of the churches as a place of security, (for at this period it was not generally believed that the malady was plague,) and were shut up there in the small room where they were usually kept.

Soon after this, Lieut. Peretti of the Corsican Rangers, with a party of his regiment and some expurgators, were sent down thither, to purify the place, and enforce quarantine measures.

About two months from the time the disease had appeared, when they were clearing away the things from the impested houses, and placing them in a depôt for safety, until it should be finally determined by the government what was to be done with them, another papa, belonging to the village, mentioned to Mr. Peretti that there were some of the church-robes in the church, in which I believe Mr. Peretti was living at the time; adding, that he wished to get possession of them, doubtless conceiving them not to be impested, and wishing to prevent their being sent to the depôt with the other articles. Without knowing, or reflecting on the consequences of complying with this request, as doubts were entertained whether they really were impested or not, at the same time being importuned by the priest, who said he was quite sure they were not impested, (and we must at least give him full credit for his belief,) as a

difficult discussion. The period, from unknown causes, varies in different subjects; but its effects, in some instances, seem to be almost instantaneous; or, at least, become perceptible in a few hours. I venture to assert this from the having known persons who had long been shut up taken ill almost immediately, or in a day or two, after their coming out from confinement."

"Mr. Bertrand places the extreme term at thirty-five days, beyond which no instance was observed at Marseilles." "In Aleppo," Doctor Russell remarks, "amongst those who were taken ill after their entrance into confinement, and supposed to have contracted the infection before their shutting up. I met with no instance of the disease discovering itself later than the ninth or tenth day."

period of two months had elapsed since they had been placed there, and nearly forty days from the last case of plague in the village, Mr. Peretti gave him permission to have them examined to ascertain in what state they were; for during these two months the room had been carefully shut up, and no person whatever permitted to enter it, at least during the time of that officer's stay there. As soon as the priest began to handle them, he was taken ill with staggering, stupor and other symptoms of plague. A few hours after, he was ordered to be carried to the pest hospital, distant about a mile, by the Condannati, and died before he reached it, no glandular affection or *petechiæ* being observed on his body.

The above is the substance of Lieutenant Peretti's official report to General Phillips, who communicated it to me a few days before I went down to take the charge, and it was confirmed to me from other sources as well as by the officer himself.

When the disease had got into the village of Rummanades, as will be mentioned hereafter, some clothes in an impested house, belonging to the Capo d'Istria,\* were put into a trunk, which for security was locked and nailed down, and left on the spot. When the house was ordered to be expurgated, this trunk happened to be still remaining there. Before the expurgation of the house itself was considered finished,—for it could not be pronounced to be perfectly so whilst anything remained in it, on which any degree of suspicion of plague rested,—one of the criminals was directed by Mr. Mazzenti, one of the directors of the expurgation, to open the trunk and see what it

\* A family of this name, relations of the celebrated Count Capo d'Istria, the Russian minister, resided in Lefchimo. Being persons of consequence, they were indignant at being subjected to quarantine restraint the same as the others, telling me they had no plague among them, and had not mixed with other families, (which I ascertained was not the fact,) and were extremely abusive, holding out threats if I did not liberate them. I merely replied that the laws of health made no *distinction of persons*, and were to be equally applied to the noble and the peasant, and that I could make none.

contained; which with considerable exertions was effected. This man, named Constantino Castania, a stout fellow, about thirty-six years of age, when he began to handle the things in it was suddenly taken ill, and complained as if something had bit him about the neck. By and by, staggering, one of the most unequivocal symptoms of plague, came on; and in two days from the time he had opened the trunk he died in the pest hospital, having *petechiæ* and a large bubo in each *axilla*. During the *delirium* before his death he was constantly talking of the serpent, which he fancied to have bitten him in the neck. This coincides with the description of the plague given by Procopius, who says, "that the disease was announced by the visions of a distempered imagination; and that the victim despaired as soon as he had heard the menaces, and felt the stroke of an invisible spectre."

This man was a strong minded careless fellow, who hitherto had been quite regardless of handling the dead bodies or impested clothes; and from this instance, as well as from the preceding one, I am inclined to think that the pestilential matter acquires additional strength and activity by being confined.

The clergyman in the case of the church at Perivoli appeared to be in perfect health at the time he received Mr. Peretti's permission to look at the things in the church: and the expurgator Castania was capable of making considerable exertion to open the trunk, but both, immediately on handling the impested articles, were, as I said, taken seriously ill, and died very soon, without any doubts being entertained of the nature of the disease, and, I apprehend, before any medicine could have had time to be of service to them.

Another case occurred in some degree resembling the two I have just mentioned, and, I think, tending to confirm my opinion that plague contagion acquires intensity by confinement.

One of the Condannati, named Spiro Bua, a stout man, aged thirty, had from the beginning of the plague been employed as a *becca morte* to bury the dead, and occasionally handled all

sorts of impested things ; a daring, hardened, thoughtless fellow, void of all fear and care, and who was often a volunteer on any dangerous and unpleasant duty. This fellow, like many of the others, was so totally devoid of fear from plague, that he could not be prevailed upon to wear the dresses and gloves that were ordered as a means of prevention.

Being accustomed from the beginning to the horrid scenes in plague, and having hitherto escaped unhurt, he thought himself quite invulnerable. But on the 17th of May, nearly six months from the time he had been sent down to the plague district, he was employed under Mr. Mazzenti in expurgating the Casa Politi, which had been done but imperfectly before. It was very well known that a part of the infected cargo of goods to which the introduction of the malady was attributed, had been brought to this house, which belonged to a Greek merchant named Signor Politi, who had been long engaged in contraband trade, about the very time that another part of the cargo had been landed at Marathea, in which village a great many persons had died of it. The deaths in the Casa Politi somehow or other were hushed up, as it was an insulated house, and was one of those which had been burned early in the business with the view of arresting the malady, and only imperfectly expurgated afterwards ; for unburied bodies as well as quantities of impested things were lying about, in different parts of the house when I saw it. I therefore sent the whole corps of the expurgators under the two chiefs who were at that time employed in the villages to finish this work as soon as possible.

In performing that duty, which was exceedingly dangerous, Mr. Mazzenti, knowing how foolhardy the fellow was, desired him to take care of himself, and not to touch the impested things, or whatever dead bodies there might be, with his hands, but to use the hooks ; telling him at the same time, that although he had escaped hitherto, perhaps he might get the plague at last. He seemed, as usual, to disregard this advice ; and meeting, amongst other things, with the thigh and leg of a body in a very

putrid state, with part of the clothes adhering to it, he took it up in his arms, and carried it to be consumed. He was immediately seized with vomiting, and felt himself very unwell, which he himself imputed to something he had eaten, that had disagreed with his stomach, adding that he should soon get better. He, however, became gradually worse, with a considerable degree of fever. By and by staggering, that well known symptom, came on, with a failure of voice, and very great prostration of strength. He complained of a burning heat all over him. He was sent, in fine, to the hospital, where he died the next day, covered with *petechiæ*, and with an immense bubo in the axilla, which he attempted to conceal.\*

In this case, also, which I conceive to have appeared in consequence of taking up the putrid limb, with the impested clothes adhering to it, where it had lain for about six months among the rubbish, after that house had been burned, the contagion in the clothes seemed to have gained strength.

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## CHAPTER VII.

Pestilential contagion usually very violent at the beginning: occasionally so during its course—March of the plague—Inquiry how it has been introduced: often by means of contraband goods, or mismanagement in health-offices—Great advantage of the early application of the proper remedies in suppressing it exemplified in Cephalonia—The general principles for its suppression always the same—Separation and segregation—Difficulties to be encountered in arranging the classifications.

I THINK it will be found that the pestilential matter or contagion, (for here I consider the terms to be synonymous) is generally more violent at its first development, and proves fatal in one, two, or three days; and often without glandular affection, or even the external appearances after death, which

\* I mention the general character of this man, because, if he had been weak and timid, this circumstance might perhaps have acted as a predisposing cause.



are supposed to characterize this disease : so that we are often in doubt, at least in the beginning, to what cause to attribute the sudden deaths, as buboes, which have been considered essential to the character of the disease, are wanting. *Petechiæ* and *vibices* are oftener present than buboes in this stage of the disorder ; but sometimes, as I have already said, all external appearances whatever are absent.

I have noticed that the contagious matter is remarkably active and fatal at the commencement of the malady : yet, in particular instances, it is extremely so during its course : it strikes unaccountably at once. They who have touched the sick, or impested things, fall suddenly ill, and sometimes die without any apparent cause, or without exhibiting any particular marks after death ;\* and those having communication with them carry home the disease to their own families, and of them also some die quickly, without having external appearances, whilst the longest survivors may exhibit both buboes and *petechiæ*.

On the first introduction of the plague into any place, the people die suddenly and unaccountably ; and the attendant medical practitioner, whom I suppose to have been called in, becomes exceedingly perplexed at what is passing in the family, and quite at a loss to explain the unusual violence of the complaints with which his patients have been attacked. He sees them very ill, and some of them dropping off suddenly, in an unaccountable manner, but at first has no suspicion that their case is plague, as the sickness is confined to a few families, perhaps only to one ; whilst the town and neighbourhood are in general healthy. Perhaps, too, he himself may be one of the very first victims—and, with his death, which however produces a certain sensation, any further inquiry at the moment stops. If there are any more medical practitioners in the place,

\* Dr. Hodges, in his account of the plague of London in 1666, says, "The pestilence is more active than lightning ; and the persons seized with it seem to be fallen into an ambuscade, of which they were by no means suspicious ; and, therefore, they are by no means to be credited or regarded who affirm the progress of pestilence to be sensible even to the smell and sight."

they find shortly that some of their patients fall sick and die ; that the usual medical treatment does not answer ; that they lose more patients in a short time, or in particular families, than they ever did before ; and they naturally become anxious and disconcerted at such alarming and dismal occurrences. Some too, perhaps, in their own families fall sick, though they themselves may continue in health. This necessarily excites the practitioner's attention to the more immediate and increasing evil ; and on weighing everything in his own mind, he begins at last to think that the disease is plague, in which opinion he soon becomes confirmed by the occurrence of the same kind of disease in other places in the neighbourhood ; and he learns that several persons among the families that were first taken ill have died in like manner suddenly, while others of them are unwell. Yet even in this stage of the progress of the malady, some feasible reason is given by way of otherwise accounting for it, and people are still unwilling to believe that the disease is really plague.

The complaint still continuing among the families first taken ill, and the persons composing them dying off unexpectedly, while sickness in particular families that had hitherto been healthy starts up and increases, with purple or dark coloured spots occasionally appearing on the bodies of the sick, after which symptoms almost certain death ensues—all this produces considerable alarm amongst the sick families themselves, and in all their immediate vicinity.

Whilst these things are going on, it is reported that some of the patients have buboes in their groins, or arm-pits, or about the neck ; perhaps carbuncles (commonly called boils) on some part of the body, and the medical practitioner on examining particularly his patients, finds that some of them have glandular swellings, which before had escaped his notice. Some of them are hard and indolent, and attended with very little pain, and no discoloration ; whilst others are of a deep fiery red and extremely painful to the touch. The febrile symptoms are in some cases very moderate ; in others, uncommonly violent.

Consultations take place among the physicians, and the civil magistrates think it their duty to make inquiry into what is going on ; and although the public opinion is divided respecting the prevailing disease, yet they think it proper to recommend the adoption of some plan for the general safety. On a reference to the sentiments of the physicians, they find such discrepancy of opinion among them, as exceedingly embarrasses and perplexes them. Some cling to the belief that there is no plague in the case ; whilst others persist in maintaining that the disease is nothing but the true plague, which calls for the most decided measures for self-preservation.

It frequently happens, that after the first shock has been given to the public mind, the disease is lulled, and there is little or nothing heard of it for a time. This lull may probably happen from less intercourse with the sick families in the way of visiting ; for sudden deaths, from whatever cause they may arise, produce a certain degree of alarm, especially among timid persons, and although they perhaps visit relations, or any intimate acquaintance, yet they are not likely to be so free in their visits as formerly.

This calm, which succeeds to the general alarm, and sometimes continues for many days, without being interrupted by anything extraordinary, leads to the belief that the suspicion of plague was ill-founded, and perhaps very unpleasant reflections are cast on those who first proclaimed the disease to be plague, whilst the public in general congratulate themselves that there is no good foundation for a rumour of the kind, that no such calamity exists among them, and that there never was sufficient reason for spreading such a report and creating such alarm ; the more so, as even at this time, by an inquiry into the general state of the public health, it is found that there is no unusual number of sick ; nay, perhaps they are less numerous than they had been for some time before.

But we ought to know that it is just the very character of this treacherous enemy to appear inactive for a time, (which

circumstance, if we are not aware of it, may tend to throw us off our guard,) and to start again with redoubled activity. It seems, at times, in a certain degree to exhaust itself by being diffused, and then to break out again with increased force—to have its violence so blunted as to be less deleterious at times than at others; and this is always to be particularly kept in mind, or the most distressing consequences will follow. We must therefore watch its motions with the most jealous care from first to last, and not be misled by these apparent interludes of inactivity.

I have given it as my belief that the noxious matter of plague becomes more active by confinement; and it is an established fact, that by being freely diluted with atmospheric air, it becomes entirely dissipated, so as to be no longer hurtful. To illustrate this, let us suppose that some impested things are laid by for a time in a trunk or drawers, whilst other things, also containing the fomes of plague, are exposed to free ventilation; the things thus laid by, never having been expurgated, will assuredly reproduce the disease on being handled; whilst those that have been exposed to the air, and from which the contagious matter has been thus expelled, are safe. Hence the absolute necessity in the time of plague of purifying everything suspected with the most scrupulous care; and hence the great danger of hoarding up impested things during the awful period. I mention that the atmospheric influence will destroy the contagion of plague without supposing that this mode of expurgation is to be exclusively resorted to; for as there is the greatest danger to those who handle the impested effects, or expose them to the air, no one valuing his life ought on any account to interfere with them. This operation is only to be executed according to rule by persons conversant in this branch of plague-service, who ought not only to be kept in strict quarantine during the time the process is going on, but they should also be strictly attended to for at least twenty days after the work is finished and they have undergone the complete *spoglio*.

At the expiration of that term, if they are found on examination to be in good health, they may be released from all restraint.

The concealing and hoarding up of impested goods, under the impression that they are perfectly free from the matter of plague, or that, if they were really contaminated, they would soon lose their noxious quality by keeping, was one of the most vexatious circumstances we had to contend with during the late plague in Corfu, and which was resorted to in the general consternation at the beginning before it could well be prevented.

It is thus that the pestilential matter goes on increasing its volume by being propagated from an impested person to another who is in health, or by means of clothes and other things which contain the contagion, till it becomes at last so widely extended, that the management of it is found a truly Herculean labour; for as a neglected spark may cause the most dreadful conflagration, so may the smallest impested article be productive of the most calamitous consequences; and if not arrested at the beginning, may compromise the health of whole nations, should nothing be done to counteract it.

Whilst the public mind is in this unsettled state—for one now hears of frequent and sudden deaths in the surrounding families; and every such report, from whatever cause it happens, creates extreme uneasiness and anxiety—it is found, notwithstanding all that has been said to the contrary, that there is a great increase of sickness and a much greater mortality than usual. Frequent consultations take place among the physicians and surgeons on the prevailing disease; and some, who at the beginning resolutely denied the existence of plague, become staggered in their opinions, or allow the disease to be the plague, while certain individuals still obstinately maintain that it is no such thing.

The alarm and consternation by this time have become general, and the true nature of the calamity can be no longer mistaken; nor has the pertinacious obstinacy of the few who still hold to their first opinion any weight with the community at large.

The magistracy now begin to act in concert. Different plans and arrangements are proposed, but none of them are acted upon with promptitude and vigour. Indecision marks their resolves, and they hardly know what to do for the best; yet all agree that something must be immediately set about.

By this time the malady has become so deeply rooted in some parts, and so widely extended by propagation, that whilst they are deliberating on what is proper to be done on this emergency, reports of various deaths among their friends and acquaintance still add to their perplexity and uncertainty.

Although at the beginning the symptoms of plague were doubtful, and external appearances, at least, in many cases, were wanting, yet now, at last, it is found that the various eruptions, the strongest characteristics of the disease, are very frequent, and that *buboes*, *carbuncles*, *petechiæ*, and *vibices*, accompany the general train of the other symptoms, which, perhaps, had been studiously concealed before. The deaths become still more frequent, and usually happen before the fifth day from the period of the attack. Some linger beyond that day; but it is found that the greater number die on or about the third.

In this dire dilemma, and whilst, perhaps, indecision prevails in the magisterial councils, not proceeding from any apathy or indifference, (for by this time I can hardly imagine that any one could be indifferent to what is passing around,) but from really not knowing how to act in so critical an emergency, the calamity, by unrestrained intercourse, still continues to disseminate itself more widely, and the people rapidly fall sick one after another.

A council, or board of health, composed of respectable individuals, with whom some of the medical practitioners are associated, is, perhaps, by this time appointed, and certain arrangements are recommended and adopted. But unless there are some among those mentioned who understand the march and police treatment of the plague, all becomes a scene of confusion, and in their zeal to do what is right, they will be apt to

act contrary to one another, and thus increase the evil which they are so anxious to put a stop to ; whilst the severity of the regulations, if they are well arranged, gives serious offence to many, who consider them to be extremely cruel. And although all are ready to admit that some judicious plan should be adopted, they will be apt to disagree as to the precise mode of carrying it into effect, and even to act contrary to some of the instructions of the board of health, however well framed they may be.

It now, perhaps, becomes a matter of inquiry, how the plague had got among them ; for it can be no longer doubted that the disease (as energetically described by Sir Thomas Maitland in the plague of Corfu, on his arrival there) "*is the plague, the whole plague, and nothing but the plague,*" and all that the most sceptical persons can urge is insufficient to shake that opinion.

On inquiring into the manner by which it has been introduced, we find that many surmises are made, and suspicions fall on several as being concerned in it. Some of these suspicions may, perhaps, be well founded ; but even if they are so, it is not likely that we shall get at the truth ; for no promise of reward or dread of punishment will induce those conscious to declare the fact, either of its introduction or subsequent propagation during its first development ; and to obtain this information, we must entirely depend on our own inquiries and conclusions, tracing it from the first sudden death or deaths of persons which were not satisfactorily accounted for (as belonging to ordinary complaints) to others who were attacked in a like manner, and from whom we shall learn, on stricter investigation, that they had had direct intercourse with the first. On making this inquiry, we shall find, that although some of the persons subsequently attacked have had direct communication with the first sick family or families, yet others, who have also had intercourse with them, continue in perfect health. But this must not deceive us, as we know that this capricious disease will sometimes attack one individual in the most violent manner, and leave others of the same family untouched ; whilst, on the

other hand, it will often attack a family, and never leave it but with the destruction of the whole.

As it frequently happens that it is introduced by contraband goods, or from deceiving the officers of health, or perhaps in consequence of these last conniving at the contraband traffic, it is almost impossible to come at the truth, from the dread of the punishment these persons know they deserve, which they are aware hangs over their heads, and which, by keeping the matter a profound secret, they may escape. They are so fully aware of the heinous nature of the offence they have committed, that neither the promise of pardon nor any reward will induce them to make the discovery demanded. And, indeed, if they are possessed of any feeling, and reflect on the general misery they have caused, I do not wonder that they should attempt to conceal the part they have acted in so unhappy an affair.

Moreover, it may happen that the persons who had brought in the disease may one and all have become its victims, so that we have no means of getting any previous, nor, indeed, any subsequent account of the transaction, unless what may arise from the propagation of the disease among those who had intercourse with them. And as, perhaps, the malady of which they fell sick or died is never dreamt to have been plague at the time, no measures of precaution were adopted, nor, indeed, was any alarm excited on the occasion.

I shall speak in another place of the manner in which the malady was introduced into Lefchimo; but I may here mention that I understood, from undoubted authority, that the wife of the captain of a smuggling vessel, which all accounts agree had brought the disease to the island, died at Perivoli, where she went to visit her relations, a village situated about a mile from the place where the vessel landed part of her cargo, and before the disease broke out either in the Casa Politi, the place at which the goods were landed, or at Marathea, where it first excited alarm. It is true that at that time it was not known of what disease she died. But the accounts I received stated that she



had died suddenly, and that immediately afterwards the captain, her husband, set off with his vessel. I do not mean positively to say that she died of plague, nor was it ascertained what she died of, but her sudden death about that time rendered it highly suspicious. Yet it is proper I should state that if the disease was plague, it did not spread in that village till some time afterwards, (the precise time after her death I never could learn,) when its introduction thither was satisfactorily traced to another source, as will be shown hereafter.

I am not fully informed of the manner in which the malady was introduced into the island of Cephalonia ; but according to the accounts I had, and partly from a letter which I got from Mr. Tully, who had been ordered from the service of Lefchimo on that duty, it appears to have originated in some neglect or inattention of the officers of health, who, while the plague was raging on the opposite coast of Albania, were not sufficiently careful in examining into the state of the health of the persons arriving thence ; nor of causing the effects they had brought with them to be properly purified before they were admitted to free *pratique*. I understood also that the quarantine betwixt Cephalonia and the Continent was ill regulated, and that its duration did not exceed seven or eight days at the time the plague broke out.

The actual existence of the plague in Cephalonia being immediately ascertained, no time was lost in applying the proper remedies for suppressing it, before it had time to extend itself ; and in this instance they were eminently successful.\* The monster was crushed and finally extinguished, almost as soon as he had begun to rear his head. Thus, one of the strongest proofs recorded in plague annals is given of what may be achieved by prompt measures in the beginning, when, comparatively speaking,

\* This was done the more promptly, as our operations in Lefchimo were drawing to a close, and everything going on favourably, which enabled me to spare a party of the expurgators, with one of the chiefs, some of the troops and guardians who were conversant with this service, for that duty.

it is an easy matter. The almost immediate discovery that the disease was *plague and only plague* was the great difference between the plague of Cephalonia and that of Corfu, where, from various causes, it was permitted to extend itself and linger for a considerable length of time, whereby the carrying into full effect of the necessary measures with promptitude and decision was prevented, and which ultimately led to very calamitous consequences.

But although it is always very desirable, for many reasons, to ascertain the manner in which plague comes to be introduced into a place, yet in as far as regards the means to be adopted for its suppression and final eradication, it is really of little consequence; for by whatever means it has been brought, (and I consider it decidedly as an imported disease, as well by land as by sea,) the general plan of management is the same in all cases—viz., shutting up the people in their houses; the principles of separation and segregation fully acted upon; the enforcement of rigorous quarantine; the establishment of *cordons*, and the purification or expurgation of everything in which the contagious matter may be supposed to exist. The great point is to ascertain that the disease is *plague*; and that once done, not a single moment is to be lost. The road is then straight-forward, from which we are not to deviate either to the right or the left.

However painful it may be to those employed on this duty, and however those suffering from the ravages of the disorder may designate the proper remedies as cruel, harsh, and unnecessary, as they no doubt will be considered by those ignorant of the matter, and by the unfortunate persons who are the sufferers, yet all this is no reason for relaxing in their application; and it will be found the best policy to act with impartiality and decision in an affair of such vital import; for we ought never to forget the maxim, that what may be considered cruelty to individuals, is charity and mercy to the community at large.

But whilst the laws of health and regard to the general safety

compel us to separate those actually impested, as well as those only suspected, from the general mass of the population, still this important, though peculiarly unpleasant duty, is not to be done in a capricious and unfeeling manner. We must never be actuated by ill-will on the sad occasion, but, on the contrary, use all the mildness and conciliating discretion in our power ; for it would be monstrous to add wantonly to the public misery by unnecessary harshness and severity. I am sorry, however, to say that it will be difficult sometimes to avoid having recourse to measures of severity ; for obstacles will be thrown in the way of this most necessary and important duty, and deceptions will be practised which may lead to much embarrassment and unnecessary rigour, of which those only can have an idea who have been employed on such a service. In the plague of Lefchimo, whenever the disease started in a place, it became the duty of every one to ascertain to what cause it was owing, and who the persons were concerned in it ; for we never for a moment imagined that it sprung up from the earth, or that it was in the air, or was caused by the climate, or, in short, that it depended on any cause separate from the principle of contagion ; and acting on that principle, we were always able to explain its appearance in a place. We not only ascertained that it was owing to some violation of the laws of quarantine, but we pursued it closely through those who had had communication with the aggressors, and immediately separated all of them from the community.

In the investigation of this subject, which was renewed as often as the plague made its appearance anywhere, we were at times not a little perplexed by contradictory information ; the guilty resolutely denying all knowledge of the fact, and persisting in asserting their innocence ; whilst those whom we had the greatest reason to suspect of having had intercourse with the sick, or were any way concerned in the matter, as firmly maintained their scrupulous adherence to the orders issued for

preventing all intercourse, except under the directions pointed out to them. We found also, on more occasions than one, that certain persons, bearing ill-will towards their neighbours, accused them, though innocent, whilst they tried to screen their friends, though guilty. The inquiry, therefore, became at times very painful. Yet, even at this distant period, I am satisfied, with regard to Lefchimo, that no unnecessary harshness was ever had recourse to, but that, on the contrary, every proper discretion was used.

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### CHAPTER VIII.

The necessity of shutting up on plague being proclaimed—Of avoiding all intercourse, and of impressing this on the public mind—Several of the people of Lefchimo guilty of violating the laws—Indisposition during the period of quarantine.

IMMEDIATELY on plague being proclaimed in any place, one of the first steps to be taken is to direct the people to shut themselves up in their houses, and to avoid all intercourse, either direct or indirect, with their neighbours. All congregations or meetings of the people are to be most strictly prohibited, as well those for amusement as for the public performance of religious duties. These measures may appear to some to be harsh and even impious, but they are nevertheless absolutely necessary; and unless this is done, and scrupulously attended to, all our efforts to suppress the calamity will be unavailing. It is not to be expected that at first the people will tamely or quietly submit to such rigorous measures, but they will naturally try to circumvent them. These measures, however, must be enforced, and, assuredly, the more strictly they are adhered to, the sooner will the plague be arrested, and the shorter will the time be during which these measures are required.\*

\* The supply of all their necessary wants while thus shut up becomes, as I have already noticed, the duty of the civil magistrates.

It is of the highest importance to impress on the public mind generally, as well as individually, the great danger of having communication with one another; that it is a disease only communicable by contact, and that, by avoiding all contact with impested persons or things, they will certainly escape; whilst, on the other hand, by coming into immediate contact even with a person who to all appearance is in perfect health, they may contract the disease. They ought to be taught to dread touching any person or thing that they do not know to be positively free from plague, which is indeed a paramount interdiction of everything or person beyond their own immediate houses or families. They ought not even to receive a letter from their friends until it is first purified. If these measures of insulation are fully attended to, they who observe them will experience the benefit accruing from them, whilst their less careful neighbours will be seen dying around them from the neglect of these salutary precautions.

This dread of plague from touching objects not known was strongly impressed upon the minds of the inhabitants of Lefchimo, and proved one of the most powerful means of preventing intercourse between them, although, indeed, some continued sceptical on that point.

As an instance of this dread of contact, I may mention that during the early part of the plague in Lefchimo, the season being uncommonly cold and rainy, and the soldiers, particularly in the camps, having often to sleep in their wet clothes, it was suggested by some one, that it would be proper to have an orderly great coat left at the places where the permanent sentinels were stationed, in order that, whenever the sentry should come to be relieved, he should hand it over to the one succeeding him, and then unroll and put on his own dry one. This at first seemed an excellent expedient, but the men themselves refused to take advantage of it, fearing lest, if by chance any one of them should become impested, the whole of them might

thus catch the disease, and they preferred remaining in their own wet clothes to running such a risk.

But whilst I mention this trifling circumstance, by way of showing the effect of thus impressing the minds of the people with a sense of the danger of touching or handling things which, for all they know, may be impested, I must add with regret that not a few of the Lefehimites acted contrary to the orders and instructions issued; and there were not wanting persons who had so little regard to their own and the public safety, as to rob the impested houses, and thus, in despite of the salutary regulations issued, to disseminate an evil which it was so very desirable to put a stop to; and these breaches of the law were invariably followed by fresh mischief, not only to the parties themselves, but unhappily also to those who were innocent of the unpardonable transaction.

If there is any truth in the doctrine of contagion in the plague, and if there is any necessity for adopting quarantine regulations,—which I suppose few will deny,—it follows that indisposition during the performance of quarantine, from whatever cause it may proceed, cannot be viewed without more or less suspicion. The plague we know to be a most treacherous disease, and to assume a variety of shapes, particularly at the beginning, and it is on account of the uncertainty as to how such indisposition may terminate, that the public health demands not only that the sick person himself, but every one who has come in contact with him, should be forbidden all free intercourse with the community at large, until the complaint under which he labours is fairly ascertained not to be plague. Then, and then only, ought such persons to be permitted to have free intercourse with the community by the taking off of the quarantine restraint. The object of all quarantine laws being to prevent plague from spreading by contact with the impested, if the disease under which any one labours whilst performing quarantine (for example, in a lazaretto, after coming from a plague country,) is not

plague, which, however, must be clearly ascertained before he is liberated, he can suffer no harm beyond his temporary confinement. But if the disease is really plague, he is then in his proper place, and must be kept there till the disease is extinguished.

It is on this account that the attendance on a quarantine establishment becomes at times a very disagreeable office to the medical practitioner; and should he happen to come in contact with his patient in the lazaretto, he, too, must be subjected to the necessary restraint; for, whilst any doubt on the nature of the indisposition exists, no one, as I have said, who has had communication with the indisposed person, ought to be allowed free intercourse with the community, until it be ascertained that the case is not plague. Medical men may think this hard; and it must be allowed that it may be extremely inconvenient for them on many accounts. But the barrier of health cannot be broken down with impunity in favour of any one. It admits of no preferential regard or affection. If the practitioner, however, has not touched his patient, nor anything belonging to him, the case is different, and there is no necessity for his being placed in quarantine.

But although in time of plague the laws of health ought not to be influenced by either favour or affection, or even by honour, in the common acceptance of the term, I think that circumstances may occur in which individual modification may be practised with safety. Thus, persons coming from a place where the plague is known to exist, if such had shut themselves up, and had carefully avoided all intercourse by which they could contract it, it is obvious that those persons ought not to be subjected to the usual protracted period of quarantine, and a few days of observation are quite sufficient; but, on the other hand, when these precautionary measures have not been properly attended to, a longer period of *observation* becomes necessary—say, twelve or fifteen days, during which time they must purify themselves, and handle all their susceptible *effects*; if at the end

of that time no plague symptoms make their appearance, (and which is barely possible,) they may be released.

A distinction ought also to be made betwixt men-of-war and merchant ships ; as in the former it is not to be expected that concealment will take place, whilst with regard to the latter, it not unfrequently occurs that cases of positive plague have been resolutely denied, and carefully concealed from the inspectors of health.

We know that persons in quarantine are not exempt from ordinary indisposition ; and it will be alleged to be the height of cruelty to subject those labouring, perhaps, under a common malady to what may be considered such harsh treatment. To those who argue thus, I have only to say that plague is of such a Protean nature, that it often assumes at its commencement the appearance of a common cold, or intermittent fever, and of various other diseases, from which it is impossible for a time to distinguish it ; but, as I have already noticed, until with time the disease, whatever it may appear to be, is ascertained not to be plague, the sick person or persons ought not to be liberated. When once that is perfectly known, there can be no reasonable objection to remove all restraint.

It is extremely to be regretted that there are not positive or specific symptoms always present, which point out to us at once this formidable disease, whereby we could immediately pronounce such a distemper to be, and such another not to be, plague, with the same degree of certainty as we speak of the measles or small-pox. But the plague often affords no such decided symptoms. If such always were present, it would save much distressing anxiety as well to the physician as to the patient, and all parties concerned. It would prevent the sick from experiencing, whilst performing quarantine, what they may naturally enough think severe and cruel treatment.



## CHAPTER IX.

Plague-contagion considered as capable of being transported from place to place—Has been imported into England—May be so again—Merchants anxious to have quarantine restraints removed.

IT is a prevailing opinion among merchants concerned in the trade of the Levant, as well as of some medical men, that the plague cannot be brought to this country in goods. To such I would reply—Is there any truth in the impregnation of certain substances with contagious or infectious matter, and in the opinion that the articles thus impregnated can be transported to a distant place without their losing the contagious or infectious quality so acquired? If I am answered in the affirmative, then why deny that the *fomes* of plague may be among the number? If in the negative, then there is an end at once to the doctrine of contagion and infection, and all that we have ever heard or read upon the subject falls to the ground. I would ask still another question—Is there any inherent principle in the matter of plague which prevents it from being transported from place to place, as some other diseases are allowed to be? And why might not a bale of cotton, or articles of that description, be impregnated with the *fomes* of plague, and be carried to a distant part, even from Aleppo, Smyrna, or any other plague town or country, to England?

It is affirmed by some, that the plague was never brought to England in merchandize, and that the dreadful disorder that prevailed in London in 1666 was not plague. It is asserted also, that if even we were to embark a bale of cotton impregnated with the contagion of plague from any of those distant countries, it would, by the length of the sea voyage, be rendered totally inert by the time it reached this country.\*

\* The case of the clergyman of Perivoli, mentioned in another place—that of the expurgator Constantino Castauca, and of another expurgator, Spiro

They must indeed be sceptical who attempt to deny that the calamity which overwhelmed London in 1666 was not plague. If it was not, then there is no such disease as plague. I have seen the plague in Egypt, I have also seen it in Corfu. I have read with attention accounts of that of the period I mention, as well as those of various years preceding, and I have not the smallest hesitation in saying that it was the plague, and no other disease. Nor can it be considered as any proof of a contrary opinion that they did not all exhibit the same train of symptoms; for we know perfectly well that no two plagues were ever precisely alike, and that the disease is modified at times by circumstances which we cannot well understand, but which are generally attributed to climate, season of the year, mode of living, local situation, &c. For my own part, I cannot doubt that the Levant plague has appeared in England more than once; and if that is admitted,—which I believe there are not many who will be found to deny,—and that in its progress here it showed as malignant a type as it usually does in the places from which it is imported, the possibility of its visiting this country again is no longer problematical; and that if once it does so, it will be as fatal in its consequences as it has been, should efficient means not be adopted to put a stop to it.

With regard to the assertion (for it is merely an opinion destitute of any proof) that this malady cannot be imported into England, judging from what we know of the adhesive nature of plague contagion, we ought not to theorize at all on this subject, or give credit to such assertions; for if there is any necessity to attempt to destroy contagion or infection generally where it is supposed to exist, or to endeavour to prevent its spreading, it is doubly necessary to take every human precaution against the introduction of plague. Besides, we have under

Bua, show the contrary, as far as they go; at least they prove that the power of plague may remain a considerable time in things without losing any of its virulent and destructive character. I am not aware that it is rendered inert by the lapse of any length of time.

our very eyes the strongest proofs that plague is an imported disease; and so many well authenticated instances of this appear in the records of the malady in question, both in our own country and abroad, that it is impossible to doubt the fact. Indeed, it is on the full admission of this that the laws of quarantine among civilized nations have been established, as the only possible means of securing them from this most awful scourge; for if it is not in its nature contagious, then these laws are not only unnecessary and cruel, but highly inimical to our commercial interests.

But before we can receive any speculative opinions on this subject, or permit them to be acted upon, it behoves us to look well to the matter, and not to be led away by any conjectural suppositions, or attempt to overturn a system handed down to us from such respectable authority; which also seems to have been adopted, after the most mature deliberation, by those who suffered most from the effects of free intercourse with countries where the plague existed. Indeed, I cannot conceive any other good reason but a regard to their personal safety that would have ever induced people to impose upon themselves such severe restrictions as the quarantine laws unquestionably are in the abstract, and which among civilized nations seem to have been carried into effect almost by universal consent. And that they have been successful, at least to a certain extent, and would have been completely so but for their occasional violation, any unprejudiced person may see by the immunity from plague which the nations of Europe have experienced since the adoption of these laws as compared with what they formerly suffered. It is to the active operation of the laws of quarantine that I am disposed to attribute not only our own exemption, but also that of the rest of Europe: nor can I admit it as any proof to the contrary that they have at times been visited by this calamity since these laws were established, when we know that in some instances at least, and probably in all of them, if the truth had been found out, the invasion was owing to a violation of these regulations.

But whilst I am considering plague as an imported disease, and have no doubt on my mind of its being such, I think it difficult to account for our own immunity from that scourge for such a length of time, without supposing that in part at least it may be owing to the care taken abroad to prevent the shipment of impested goods, which, indeed, we know to be the fact, or to their being expurgated at some of the lazarettos before they reach this country. For my own part, I cannot see any other good reasons for it. I can never impute our exemption to a change in the atmosphere since the malady last appeared, in 1666, which would prevent it from germinating, were it to be imported. I cannot believe this, which is merely an hypothesis, unsupported by anything like truth or by analogical reasoning. The atmosphere, for anything we know to the contrary, may have been changed a hundred times within this century; but I cannot admit that any change of this kind will prevent the contagion from doing mischief if once it is imported, nor can I consider its non-appearance amongst us for such a length of time as a sufficient reason for throwing aside the laws of quarantine, and admitting free intercourse with plague countries. Indeed, I am afraid that too much has been said of our long exemption from plague, and fallacious reasonings have been drawn from thence, which ought never to have been done; but they are not to mislead us, and we must not build our hopes of continued immunity on so slender and doubtful a foundation.\*

It is very natural for merchants to wish to remove the restraint on commerce which the laws of quarantine impose; but it is the duty of every government to protect above all things the health of a country. Individual interest, supposing such to be at stake, must not be put in competition with the public safety, and no private considerations, nor bare hypothetical reasoning in a case of this kind, ought to have influence. I

\* The risk from imported contagion may be very much diminished, and I have no doubt has been so, by the intelligence, activity, and zeal of the Consuls residing in countries in which plague is common; hence the necessity in the making these appointments of selecting proper men.

cannot suppose for a moment that those who differ from me in opinion are actuated by improper motives; on the contrary, I give them full credence for the belief of what they advance. My firm persuasion, however, is, that if the laws of quarantine were once revoked, the plague, some time or other, would be imported, and on being imported, if left to itself, would be as fatal in England as it ever was in any other country.

There is nothing, however, so very singular and uncommon in our being exempted from plague for upwards of a century and a half. Other places have been exempt from it for a much longer period, and have yet got the plague amongst them at last; and I confess I am unable to assign any other reason for our exemption than the one I have just noticed, rejecting such reasons as those of the change of the atmosphere or the length of the voyage, unless better evidence is brought to substantiate them. If, indeed, it were proved that an impested article or articles had been brought to this country without having previously undergone any purification, and that such were found, after being handled by several persons, to be perfectly harmless, then this, so far as it goes, would be proof that the length of the voyage would destroy the contagion of plague. But who would be mad enough to put the subject to such a test? Or what government would permit such an experiment to be made? I conclude this subject by affirming that too much was known of the dormant and treacherous nature of the contagion of plague in Lefchimo to admit of any doubt that it may remain active for a considerable time; and I think it is impossible that this infectious principle can be destroyed by the voyage alone, without any other means of purification.

From what has been said of the plague being an imported disease, and of the frequency of its having been arrested in lazarettos without its doing any further mischief, it will, I trust, appear obvious that we have no good reason for supposing that this disease, which has so often appeared in England prior to 1666, was ever generated in this country, or that the usually

assigned causes of ill-ventilated houses, narrow and filthy streets, impoverished living, &c., either separately or conjointly, have ever produced, or are capable of themselves of producing, this disease. They may cause, and continue disease, I allow; but that disease will not be plague. Moreover, it is well known to travellers who have visited other countries and have seen these alleged causes existing, (perhaps in a much greater degree than they have in England for many centuries past,) that all these are not productive of plague. There is something so very appalling in the bare supposition that this dreadful disease should be capable of capriciously starting up amongst us from the existence of any inherent cause, that it is enough to embitter the comfort and enjoyment of life. There are some, I believe, who even at this day are of this opinion; but I trust their number is small, and that their sentiments will have no effect on the executive government of this country.\*

## CHAPTER X.

Safest, and perhaps in some circumstances cheapest, to destroy a plague-ship at once, rather than to expurgate her—The health of a ship's crew not sufficient proof that there is no plague-contagion on board—Indemnification from governments for impested property destroyed—Impossibility sometimes of ascertaining at once whether a ship has the plague on board or not—Such ship should not be allowed pratique until that point is ascertained—Manner in which goods may be impested—The plague said not to proceed in an easterly direction—Is probably influenced by season—Uncertainty of the period plague-contagion may retain its activity—Modification or relaxation of the quarantine laws of England—Why expurgators in England have so long escaped the plague—Dealers in old clothes said not to contract the plague.

I AM aware that the expurgation of a plague-ship with a cargo of goods is a very difficult, tedious, and expensive operation,

\* These reflections were called forth by the opinions delivered before the late committee of the House of Commons, appointed to investigate the contagious nature of plague.

as well as one not free from danger. But still, in many cases, under proper management, and with proper conveniences, it may be done. I am nevertheless of opinion, that, generally speaking, it will be the best, and perhaps the cheapest way in the end, to destroy the ship and cargo at once, and place the people under strict quarantine restraint, until their state of health is proved to be free from all suspicion, they having first undergone the complete *spoglio*\* and washing.

By doing this, if no communication between the ship and the shore has taken place, all danger and risk will be got rid of at once ; and as to the people, we must watch progress, examining them carefully twice or thrice a day, when, should any one of them unfortunately fall sick, he should be instantly separated from the rest, which must be done as often as any become indisposed ; and if the disease is confined to the persons in the lazaretto, as I am now supposing, after premising that no communication between the vessel and the shore or any other quarter has taken place, I will venture to affirm that this most terrible disease will do no harm beyond the precincts of the lazaretto, where it will soon become extinct.

But if, before this arrangement has been made, any intercourse

\* The expurgation, however, of the cargo can only be effectually done in a well-arranged lazaretto, where you have persons conversant with that duty. As to the vessel, if she is a valuable one, I conceive she need not be destroyed, but everything capable of retaining the fomes of plague is to be landed by the crew, which, when done, she ought to be frequently fumigated and white-washed, having the hatches closed at each time whilst the purification is going on. This operation can be very well effected by those of the crew who are in health, under the superintendence of the officers of the lazaretto ; and they may be as well employed in purifying their ship as in passing their time in the quarantine not doing anything, and thus save expense, which in any case will be heavy.

If this has been properly done, I should think that the vessel may be pronounced to be free from plague, and *clean* in a month. Thus she is saved, whilst the purification of the cargo is going on, when it is decided to be worth the expense, risk, and trouble.

By the *complete spoglio*, I mean that all the clothes which the persons have on are to be taken from them, and should be supplied with others that are clean, and they should be well washed with soap and water. Some go so far as to shave off the hair, which I conceive to be quite unnecessary.

has taken place either by smuggling or any other violation of the law, the case is quite different, and must be managed according to circumstances, or the general principle so often pointed out.

I have heard that it was the intention, in the first instance, to have destroyed the ship and cargo that brought the plague to Malta, in 1813, taking the necessary precautions with respect to the people on board. But somehow or other this was not done. Some goods were landed by stealth from the vessel, and very soon after the plague broke out, and followed, as it always does, the direct line of communication in the first instance, but ultimately became lost in the general intermixture which takes place from promiscuous intercourse; and that this was the source of the plague was, I may say, universally credited at Malta at the time.\*

I believe there is little doubt that the ship *Saint Nicola*, from Alexandria, brought the plague there, and was the cause of that calamity; and that, had not the laws of quarantine been violated during the time that the actual existence of the plague on board was doubtful, and before the destruction of the vessel could well be resolved upon, (for this is not to be done merely on suspicion,) there is no doubt whatever but that island would at that time have been spared the ravages of the disease and the very serious expenses thereby incurred.

In speaking of a ship with the plague on board, I am here supposing that some part of the cargo contains the fomes of plague. It is possible, however, that the cargo might not be impested, although the disease had manifested itself among the crew. Thus, a shipment might have been made when there was no suspicion of plague whatever in the place or neighbourhood for some considerable time before; the vessel then being ready to sail and her cargo perfectly secured, so that no one could have access to it, the cargo would no doubt be free of plague. Various circumstances might, however, at this juncture prevent

\* See Notes in Appendix.



the sailing of the vessel for a time, until the disease happened to break out in the place. The captain or some of the crew, having intercourse with the natives, might then bring the disease on board, which might not appear till they had been for some days at sea ; and should they reach their destined port without the integrity of their cargo being interfered with, I should say that it cannot be impested. This is, however, an extreme case, and although possible, is not probable. Yet, even in this case, if it be once ascertained that the plague is actually in the ship, the whole must be considered as contaminated, and treated accordingly. There can be no modification of the matter—it would be drawing too nice a distinction. There are only two ways of acting : either to purify the ship and cargo, if they are worth the expense and trouble, or to destroy them entirely.

I may add, by the way, that the health of the persons on board is not always sufficient proof that the cargo is perfectly free from contagion ; for we can easily conceive that impested goods may be shipped, and the crew have no access to them during the voyage ; consequently they cannot thereby contract the plague.

With regard to the remuneration to be granted as a compensation for destroying ships having the plague on board, or for such property as the government may judge it necessary to make away with during the time of plague, it is necessary to add a few words.

In order effectually to prevent the introduction of plague when ascertained to exist on board ships, as well as the consequent mischief that would ensue were any communication allowed to take place with the shore, the executive government, I believe, of more than one country in Europe, has deemed it necessary for the public safety to direct that such ships with their cargoes should be immediately destroyed ; and sound policy, as well as regard to individual sufferers, who might otherwise be ruined by this necessary measure, has dictated the justice and propriety of granting them some compensation for their losses on such an occasion, the amount of which must

depend on circumstances. In no case, however, have the claimants a right to expect full indemnification for their losses ; because, supposing it were not decided that the vessel with her cargo should be destroyed, but that both were to be purified, the expense of such purification in all its branches must necessarily be defrayed by the proprietors themselves ; and it, generally speaking, amounts to a large sum, for so dangerous and tedious an operation cannot be undertaken without ample remuneration. The people thus employed are not only to be paid during the time the work is going on, but it has been usual (although, no doubt, this depends on the original agreement) to allow them, during the period of the quarantine, which they must perform after all their labour is finished, at the rate, *per diem*, of half the sum for which they had originally contracted ; besides, some consideration is made them for their clothes, supposing they are not provided for them by their employers, as in their *spoglio* they must suffer the garments they had been wearing to be destroyed. The probable amount of all these expenses must be calculated ; for these would necessarily fall on the proprietors in the event of purification, and must be deducted from the actual value of the ship and cargo to be made away with. It is but fair, also, that the proprietors should sustain a part of the loss, even although no blame may be attached to them. These deductions, therefore, being made, I should imagine, generally speaking, that if one-third of the actual value were accorded to the proprietors, it is as much as they have any right to expect, and it may be a question, in some cases, whether they should get so much, or are fairly entitled to receive it. It was according to this calculation that compensation was made to the people of Lefchimo for the things that were destroyed belonging to them, when the depôt of impested articles was burned by order of government.

Could it be positively known *à priori* that ships arriving from plague countries are free from contagion, then there can be no doubt that they might be admitted without the necessity of their

undergoing any quarantine restraint whatever ; but as that point cannot be ascertained, or rather, I should say, that as a certain degree of suspicion always hangs over a vessel coming from a plague country, which is more or less, according to circumstances, it would be highly improper to admit such ship to free *pratique* without her having first undergone some purification, or afforded proof of health. I am not fully informed of the quarantine regulations of England, or of the modes of expurgation adopted, but as they appear, in conjunction with other circumstances, to have been successful in warding off the plague for upwards of a century and a half, I think that if any modification is entered upon, it ought to be done with great circumspection. I am ready to allow that the expurgation of goods brought to this country may often be more a matter of precaution than one of absolute necessity ; but it would be a very dangerous experiment indeed to remove on that account altogether these necessary restrictions. I view these restrictions, however, as being of such vital importance, both with regard to our own preservation and that of our political relation with other countries, that I trust they will not be materially altered, at least until there are such conclusive and satisfactory reasons, from our more perfect knowledge of this subject, as will enable us to do so with impunity.

As to the manner in which goods may be impested before being shipped, it is incumbent also to say something on it.

Bales, for instance, may be impested both externally and internally ; externally, by being handled and carried by convalescents, or by persons having the plague about them ; internally, by being packed up by the same class of persons. Nor is there anything absurd in the supposition of a person following his usual avocations who is convalescent from plague, or may have the plague in so slight a degree as scarcely to interfere with his daily employments : such occurrences are well known to every one who has seen the disease. Indeed, in the plague of Lefchimo the convalescents were of the most essential service in the expurgation of the houses, and the performance

of other duties within the district; and they were often obliged to work very hard. Yet every one of them was considered as capable of impestering, and as such was most carefully avoided.

It is a commonly received opinion (of which I, however, entertain considerable doubts) that the plague does not extend itself in an easterly direction, as it is known to do towards the west; and its ravages in the latter direction, as recorded by authors, are much more frequent. Perhaps it is not hazarding too much to suppose that there may be a deficiency of information on this head, and that the chasm which appears in plague movements may be attributed to that cause. Certain it is, if we credit the accounts of the memorable plague mentioned by Procopius, that there is no reason to doubt that it existed in eastern countries, and was as fatal there as when it extended to the west. If there are any peculiar circumstances capable of preventing the disease from extending in an easterly direction, I confess I am ignorant of them; but I know of no reasons as far as regards the air, climate, mode of living, or, in short, any other cause whatever, why it should not pursue its course in that direction, nor have I seen anything, *cæteris paribus*, like a rational ground assigned why it should not travel one way as well as the other. It were desirable, however, to be able to ascertain whether this prevailing opinion is really well founded or not; whether the supposition I have made be not true in point of fact, or whether there may not be explanatory circumstances to account for the non-extension of the disease eastward, if the fact is really such.

I am, however, still of opinion that if impested goods are packed up, (no matter from what place they come, nor through what places they pass, nor whither they are to be carried,) unless they are purified by some means or other, they will produce the disease wherever they are opened and handled. Nor can I conceive that it makes any difference with respect to the interior of bales (supposing them to be originally impested) whether they are transported by caravans or carried in ships; nor do I

believe, if these bales are closely packed, as they usually are, that any supposed ventilation they could thus receive would be a sufficient mode of their purification.

Although I do not believe that any state of the atmosphere, or season of the year, will prevent the development of the disease, or stop its extension, yet I do not mean to deny that it appears at times to be under the influence of season. In plague countries, such as Egypt, which is almost annually, in some part or other, subject to this calamity, the disorder generally commences towards the end of autumn, and terminates about the beginning of summer ; and this with a degree of regularity which I conceive cannot well be accounted for otherwise than by adopting this supposition. I agree, therefore, with Dr. Granville, who thinks “ that the seasons have an influence on the character of the disorder ;” yet, as I have elsewhere remarked, it is not always the case, for we see that it has started and spread at all seasons of the year, and in almost all climates, without regarding the extremes of heat or cold.

But whilst I am of opinion that particular seasons may have something to do with the character of the disease, I am disposed to attribute its severity to a far more efficient cause,—namely, to extensive intercourse with healthy places ; and to this cause it is that we are to impute its travelling from country to country, and from town to town ; and if we give ourselves the trouble to inquire minutely into the matter, we shall, generally speaking, be able to trace the road it has taken from its first introduction to its present positions ; whilst, at the same time, we shall be able to see that where no intercourse has taken place, all round remains in the usual state of health. It will effect its ravages within this range whilst all without is safe and well. In this respect, it resembles very much a conflagration, which if left to itself will keep on increasing as it finds fuel and materials to support it, with other circumstances favourable to it, and death and desolation mark its progress.

Respecting the length of time during which the matter of

plague may remain in a state of activity in anything, (supposing that no mode of purification has been adopted,) I believe it impossible to decide with certainty whether or not it ever loses its contaminating quality if closely confined. This part of the subject is extremely obscure, and in the present state of our knowledge, I am not aware that anything very satisfactory can be adduced either with regard to the *effluvia* of plague in particular, or to infection generally. At all events, we ought to run no risk; for if an article is once supposed to contain the *effluvia* of plague, it ought instantly to be either destroyed or purified under the rules of quarantine, when considered worth the expense and trouble.

Viewing, as we have done, the plague as an imported disease, and not one generated in this country—considering also that it has frequently appeared here in Britain, no matter by what means it was introduced, and imputing our immunity from the calamity for such a length of time to the active operations of the quarantine laws, either to their preventing the shipment of impested goods abroad, to subsequent expurgation in some of the lazarettos in the Mediterranean, or to purification at home—it is still, as I have already said, my most decided opinion that any material alteration in the quarantine laws of England is a subject of such grave and serious importance, and so intimately connected with our own preservation, and commercial relations with other countries, that I trust no innovation will be made in them without the most clear and substantial reasons.

This is a subject of extreme delicacy, and, in the present state of our knowledge with regard to plague, I doubt whether any material alteration can be entered upon, without subjecting ourselves to a certain degree of suspicion in the estimation of other countries. The laws of quarantine, which are those of health, are different from all other laws in their operation and effects, and are, I may say, general, not partial. They cannot, consequently, be interfered with without the suffrages of other

nations; else they might place ourselves in quarantine by refusing to have free intercourse with us.\*

It is not my intention to discuss the merits of this subject here, or to say whether some amelioration in the laws of quarantine might not be adopted, consistent with our own safety and our foreign relations. This is a GREAT NATIONAL question, which must not be hastily decided.

With regard to the fact (and as far as I know, it is such) that the persons who have been employed in expurgating the goods brought to England have escaped the plague for such a length of time, there may be various reasons (which I allow are partly presumptive) to account for it.

1st. The great attention paid abroad to prevent the shipment of impested goods for this country.

2ndly. Supposing that impested goods had been embarked, the contagion may have been destroyed by purification in some of the lazarettos in the Mediterranean, where the ships are used to perform quarantine before their arrival in this country.

3rdly and lastly. The contagion of plague may have been embarked in goods, and brought to England; but by the measures of self-preservation enjoined in the lazarettos, or purifying places, the persons employed in purifying them might have escaped, it being ascertained that, although the expurgation of goods is a dangerous operation, the persons conversant with this service may expurgate them effectually so as to destroy the contagion, without themselves suffering from the operation.

It is a commonly received opinion in plague countries, that the dealers in old clothes never take the plague, and this is mentioned as a conclusive proof of the non-contagious nature of the disease. I trust I shall not be considered sceptical if I presume to doubt the truth of such an opinion. To suppose that they should escape this disease merely because they deal

\* The very report of such an intention produced a lively sensation in some of the ports of the Mediterranean, in the year 1825, and subjected our commerce to a temporary inconvenience.

in old clothes, is too absurd; for this is the only construction which can be put upon it. We know too well that the plague is no respecter of persons, and it would be really too much to imagine that it respected only the dealers in old clothes. Dr. Russell had heard this opinion, but he gave no credit to it; and mentions in page 31 of his work, that in the plague of Aleppo, in 1761, it had got among the brokers there, and excited considerable alarm. For my own part I can have no doubt that these men suffer, and in a much greater proportion than other persons, from the nature of their trade, unless it can be supposed for a moment that they possess the most inestimable of all secrets, that of preventing themselves from contracting plague. Indeed, I cannot conceive how any one can seriously believe and assert such a matter as a fact, or how any one can be so very credulous as to believe it.\*

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## CHAPTER XI.

On the symptoms of the plague—The supposed characteristic symptoms sometimes absent—Collateral circumstances to be considered in order to enable us to decide on its actual existence—Symptoms of the celebrated plague mentioned by Procopius—Of that which attacked the British army in Egypt—Of that in Lefchimo—Of the prognosis.

HAVING briefly considered the history, character, and consequences of this disease, we are now to consider in a general manner its symptoms, and more particularly those that are found to be most characteristic of the complaint; the appearance of which, coupled with other circumstances, will enable us to

\* Mr. Green, treasurer to the Levant company, seems to doubt whether the plague can be communicated by clothes. On the following question being proposed to him by the Committee of the House of Commons, "Have you ever known the clothes to be the cause of plague in other persons?" he replied, "I have strong reasons to think that they were not the cause." "Why?" "Because the people who deal in them are not infected."



decide on what is plague, and point out, as far as can be done, the difference between it and any other prevalent disease ; for mistakes in this matter have very often led to the most calamitous consequences ; and whatever may in any way tend to clear up this matter is a grand *desideratum*.

It is to be exceedingly regretted that sometimes, at the commencement of this disease, there are not those clear and unequivocal symptoms which would enable us to decide with the same degree of certainty as in some other complaints. But we are not on that account to suppose that at its first evolution everything respecting its character and symptoms is loose and uncertain, and that we have nothing decisive to guide us, or to enable us to form our opinion. This is not the fact ; for to a person of discernment, and who has seen the plague, or to one who has thoroughly studied its character, there are appearances and circumstances almost always connected with this disease which cannot well be mistaken. We may not be able all at once with certainty to determine whether the cases we are called upon to examine be really plague or not, till we inquire minutely into all the circumstances—the manner, for instance, of the attack, or how the sick were first seized with the disorder ; the particular symptoms at that time and subsequently, as well as the present ones, endeavouring as far as possible to trace the origin of the malady—which, if plague, will be from a certain point ; and ascertaining who are ill of the same kind of complaint, whether all have not had intercourse with the same suspected districts or persons, or whether those who have been subsequently taken ill have not had free intercourse with some of the others first taken ill, at the time when no suspicion of plague existed ; whether the sickness did not begin at some place near the sea ; whether a ship had not arrived from some plague country, and had intercourse with that place, either by smuggling, or by some other violation of the laws of quarantine, prior to the appearance of the sickness ; whether the sickness is not almost entirely confined to the persons who have had inter-

course with one another from the time it was first observed, till that when this investigation takes place; whether a greater number of sudden deaths, attended with unusual symptoms within the traced chain of communication, have not occurred, than among a much larger proportion of the rest of the community; whether several have not been taken suddenly and violently ill, and died off very unexpectedly, some without any particular appearances after death, others with spots or *petechiæ* on their bodies, and subsequently with the buboes or carbuncles, and perhaps both, in the same person; whether the usual remedies which it has been thought proper to exhibit in the sickness have not appeared to be more unsuccessful than usual, and the disease altogether more intractable than generally happens; whether the disease is not observed to be confined to particular families within the chain of communication, as already noticed; whether, when the disorder attacked pregnant women, it had not been particularly fatal, &c.

Many of these, and perhaps other inquiries, must be made in order to enable us to form our opinion respecting the existence of this calamity; an opinion fraught with the most important consequences, and one which, although it ought never to be given without due deliberation, and the most perfect conviction on either side, yet it is very obvious ought boldly to be given if the conviction is that *the disease is plague, and only plague*. And when once this disease is pronounced to exist, not a moment is to be lost in the vigorous application of the proper remedies; for every hour of indecision or inactivity in this state of things will be attended with the most serious mischief, by allowing the disease to extend itself all around.

With these preliminary remarks on the collateral circumstances connected with the existence of plague, let us now take a view of the symptoms, such as have been recorded by authors, and those which came under our own observation in the plagues of Egypt and of Corfu. And here it may be mentioned, by the way, that although there are always leading symptoms accom-

panying this disease, yet I believe there are no two plagues in which the symptoms have been found exactly alike.

It is here quite unnecessary to enter into a detailed account of the various symptoms of plague recorded by authors, as they are to be found in their works. I shall therefore confine myself to the most remarkable plague mentioned in history, that which occurred about the year of our Lord 542, during the reign of the Emperor Justinian.

In the account of this plague given by Procopius, it is described as having emanated from the confines of Egypt, and spread itself to the east over Syria, Persia, and the Indies; to the west, along the coast of Africa, and over the Continent of Europe. The symptoms were ushered in by the visions of a distempered fancy in a manner that was not previously known; and the people were attacked in their beds, in the streets, and in the midst of their usual occupations. It was attended with fever, and accompanied with buboes in the groin, arm-pits, and under the ear. If these suppurated kindly, the patient was saved, but if they continued hard and dry, mortification came on, and the patient died about the fifth day. The fever was commonly accompanied with *delirium* or lethargy. The bodies of the sick were covered with black pustules, or carbuncles, the symptoms of immediate death. To women pregnant, the disease was generally fatal. Every rank and profession was attacked with indiscriminate rage. In Constantinople, although the physicians were zealous and skilful, their art was baffled by this vehement disease. It was the opinion of the citizens, from short partial experience, that the disease could not be gained by the closest conversation. It spread from the sea-coast to the inland countries, &c.

In reviewing the preceding account of this most memorable plague, it is worth remarking,

1st. That it seems to have been the prevailing opinion in all ages that the plague originated in Egypt, or in the countries bordering upon it.

2nd. That from thence it travelled by unrestrained intercourse and by means of emigration, warfare, or trade, to other parts even in *an easterly direction*.

3rd. That it spared neither age, sex, rank, nor profession.

4th. That the bodies of the sick exhibited the appearance of black spots and carbuncles, which were considered the unerring harbingers of death.\*

5th. That those whose buboes suppurated kindly were saved; whilst those in whom they continued indolent and hard, died about the fifth day.

6th. That it was peculiarly fatal to pregnant women.

7th. That the medical art was baffled by the overwhelming calamity.

8th. That it spread from the sea-coast towards the inland country, but that ultimately the remotest places were not secured from its ravages.

On referring to my notes on the plague of Egypt, which attacked the Indian army, to which I was attached at the time, I find there was always more or less fever. Great prostration of strength was a common symptom, also headach attended with giddiness, more or less stupor, and *coma*; pulse variable, sometimes small and fluttering, at others full and hard; the lips appeared to be of a livid colour, with a shrinking of the features; often a sensation of cold and chilliness extending along the spine; tongue generally whitish and streaked; appetite from the beginning much impaired. In addition to these symptoms, I observed a considerable degree of pectoral affection, which was perhaps owing to the cold, which at that time was pretty severe, and which the natives of India seemed to feel much. These symptoms seemed to mark the first stage of the disease. It was also often ushered in with violent vomiting, sometimes of a dark, sometimes of a yellow matter, and now

\* Probably the author here means *vibices*, which are almost always the forerunners of death; at least, in modern plagues, carbuncles are not found to be quite so deadly a symptom.

and then with *rigors*. Some of the patients, too, were carried off within from 16 to 24 hours after they first began to complain.

By and by, the symptoms increase with more or less rapidity and violence, and the affection of the head becomes so severe, that the patient is unable to raise it up. The prostration of strength is also so great, that in some cases he is scarcely able to walk about, or even stand upright. He has no inclination to make the least exertion, unless compelled to do so. He sleeps little, and that little seems to render him worse. He starts in his sleep; has frightful dreams, with a low muttering *delirium*.

Buboes soon make their appearance. The degree of *coma* and stupor is sometimes so great, that the patient does not seem to understand, or take the least notice of what is said to him. There was also a remarkable dryness of the skin amongst those natives of India whom I attended, which no sudorific that was tried could remove; a peculiar appearance of the countenance, approaching to *risus sardonicus*, with a wildness in the eyes, which indicated a disturbed state of the sensorium: nor were involuntary evacuations an unfrequent symptom.\*

Having briefly stated the more common symptoms which I observed among the Indian troops, a more particular account of which is to be seen in Sir James McGrigor's Medical Sketches, I now turn to the consideration of the same subject in the plague of Corfu. And here I must premise that, as I did not arrive thither from Genoa, where I was serving with the army of the Mediterranean, until after the violence of the disease was over, my information is chiefly drawn from the report of the medical officers who were serving in the impested district before my arrival, and who, with one exception, continued in the execution of their respective duties there, until free *pratique* was proclaimed between that district and the rest of the island.

\* I do not find *petechiæ* or *vibices* mentioned. This possibly was from not observing them on the dark skins of the Indians. I remarked, also, great flexibility of the body after death.

The medical officers were chiefly from our own army, but there were also several Greek doctors, and one Frenchman, who had been a surgeon in the French army. Of the Greek doctors, Dr. de Georgio was employed in the lazaretto attending the sick.

The symptoms of the plague in Corfu, as collected from the medical officers employed on that occasion, were as follow:—

More or less fever, sometimes of a *remittent*, sometimes of an *intermittent* type; great prostration of strength; staggering like a drunken man; often violent headach; tremors; derangement of the stomach, with a sensation of burning heat; vomiting, sometimes of a yellow, at others of a blackish matter, like coffee-grounds; involuntary evacuations, both of urine and fæces at times, when the patients did not appear to be very ill, and which seemed the effect of fear, stupor, coma; often violent and sudden exacerbations of fever, which could not be said to belong to any type; a white, glossy tongue, the edges of which were generally clean, with a streak in the middle. The countenance exhibited an appearance of terror mixed with anxiety, and, as it were, claiming pity, which it is difficult to describe, but which is well known to those who see plague patients, and is very characteristic of the disease. Sometimes the disease was ushered in with furious *delirium*, approaching to a state of *phrenitis*, with the eyes, as it were, ready to start from their sockets, and the face flushed, as if mad with the effects of drink and passion, so that for a time they became quite unmanageable. The duration of the paroxysm sometimes lasted for hours, after which they became calm and composed, and in some instances appeared to be quite rational. In some cases, these violent exacerbations were succeeded by cold *rigors*; these alternated, and the unhappy sufferer was carried off by them, sometimes without exhibiting those eruptions which are supposed necessary to form the character of plague.

Buboes and carbuncles were very common symptoms, particularly after the first ebullition of the disease was over. When

they came to suppuration, it was considered favourable ; but in the cases in which this could not be effected, and where they continued indolent and painful, with much fever, dryness, and heat of the skin, they almost always brought the disease to a fatal termination. Some few of the buboes were dispersed by resolution, and the patients did well. These, however, were not frequent ; for of all the patients with buboes who entered the lazaretto near the *Casapoliti*, only five recovered, whose buboes were discussed. Those whose buboes continued hard and painful generally died. In them, the powers of nature seemed unequal to the task of bringing on suppuration, and the patients sank under the disease.

Dr. Russell remarks, p. 112 : “ Their presence (viz., that of buboes and carbuncles), separately or in conjunction, leaves the nature of the distemper unequivocal. But fatal has been the error of rashly, from their absence, pronouncing a distemper not to be the plague, which in the sequel has depopulated regions, and which early precaution might probably have prevented from spreading.” Sometimes these buboes were exquisitely painful, and of a deep red colour ; at other times, they were attended with very little pain, and no discoloration. I may remark, with reference to the symptom of staggering, that it caused me considerable alarm, soon after my arrival in the plague district, as the following anecdote will show.

My Italian servant, Guiseppe, whom I supposed to be a sober, steady, trustworthy man, happened to get very drunk one day whilst I was out at my inspections. When I returned, I found him nearly insensible in his tent, and everything in my own topsy-turvy. I ordered him to get up, that I might see what was the matter with him, and taxed him with being drunk, which he denied. I began then to suspect that somehow or other he had got the plague, and that I myself had every chance of getting it from him—no very pleasant subject for contemplation. I immediately called one of my guard, and desired him on no account to permit him to leave his tent. My own feelings

were not very enviable at this moment, as he was the only servant I could have under present circumstances, and I had taken him with me from Genoa, at the recommendation of my brother, whose servant he had been before. Moreover, from his attachment to me, he had volunteered to accompany me on this service. It was too late to do anything with him for that night, and I went to bed with all the horrors of plague about me, and of course could not sleep. The next morning, at daybreak, I went to see him, and found that he had not awoken. In a few hours after, he got up to prepare my breakfast, and was much surprised to find that the sentinel would not allow him to go into my tent. I went to see him, and found him labouring under all the symptoms of his last night's debauch, which he now confessed, assuring me that he had been in no place where he could get the plague. I kept him, however, under the eye of the guard, whom I desired not to have any communication with him for a couple of days, when, being satisfied there was no plague in the case, he was liberated. I impressed on his mind in the strongest manner the necessity of his having no intercourse with any one, else he might get the plague, and would be sent to the pest-hospital. This lecture alarmed him, and I never had occasion to find fault with him afterwards.

*Petechiæ* and *vibices* were common in the beginning of the disorder, as well as during the whole time of its continuance, and were the unerring messengers of death, as seldom twenty-four hours elapsed from the time they made their appearance till death closed the scene. The unfortunate sufferers seemed, as it were, to drop into the grave without the power or even the inclination to help themselves; whilst, in some instances, they seemed quite conscious of their approaching fate, and life in them became extinct almost without a struggle.

In some instances, the blood seemed to be in a dissolved state, producing *epistaxis* and other hæmorrhages as from the stomach and bowels.

Such was the furious *delirium* in some cases, that the unhappy



persons were with great difficulty carried to the pest-hospital; whilst others, with unequivocal symptoms of plague, had such a dread of being carried on the bearers, or even touched by the persons appointed to transport them to the hospital, that they entreated they might be allowed to go by themselves, and not be interfered with by the *condannati*. In some cases, this exertion no doubt aggravated the symptoms.

In certain instances, when the disease was ushered in by a violent degree of fever and affection of the head, the patient seemed almost all at once to be relieved from his dread of the disease, became tranquil and collected, and even laughed at the idea of his having the plague; would call for wine, and drink it off with apparent avidity, for the purpose of deceiving both himself and others. By and by, buboes, or carbuncles, began to make their appearance; the delirium and fever returned, and the wretched sufferer died without either the one or the other having come to suppuration; or the *petechiæ* appeared, and closed the scene. On some occasions, the thread of life was cut short without any of these appearances, the patient being suddenly carried off in these struggles. The following anecdote was mentioned to me by Mr. Sammut, assistant-surgeon of the Corsican rangers, who served with me in the plague of Corfu.

A poor woman of Saint Theodoro, shortly after the plague broke out there, when first attacked, became furiously mad, and ran about the village in her shift. Her husband was unable to restrain her; and no one dared to approach her. At length, one of the neighbours, a strong active man, on his being promised a sum of money, some oil, and other presents, agreed to assist the husband in securing the unfortunate creature, and to conduct her to the hospital in the town of Saint Theodoro, there being none of the servants at hand at the time. This being done, she died there the next day with buboes. In a day or two after, the husband fell ill, and was sent also to the hospital, where he died after an illness of two days with the buboes.

The man who, for the sake of the money and other presents, had volunteered his service in this business, as yet continued in health, and was quite pleased at being so well rewarded for so very little trouble, though annoyed at not being permitted to return to his family, on account of his intercourse with impested persons. Unable, therefore, to join his family, he consented to remain as an hospital attendant, on the promise of being well paid for his trouble. He was only four days in his new employment when he complained of headach, staggering, prostration of strength, with other symptoms of the disorder, and died.

A confused feeling in the head, anxiety, and a hurried and abrupt manner of speaking and answering questions, were symptoms often present.

Failure of the voice was a common symptom, and probably depended on the great debility. A peculiar muddy or glassy appearance of the eyes was also very frequent.

Loss of appetite, as may be supposed from the tumult in the system, was an accompanying symptom of plague; but this was not universal.

Mr. Sammut mentioned to me the case of a poor child ill of plague, who expressed a wish to eat some cake made with eggs and flour, which was got ready for him. He ate some of it with apparent eagerness, and called for more, which was also given him; but whilst this second portion was in his mouth, he fell backwards and expired.

The pleuritic affection, which was so remarkable among my plague cases in Egypt, was not a frequent occurrence here.

Diarrhœa was sometimes an accompanying symptom of plague, caused probably by the deranged state of the stomach and bowels. It was difficult to manage, and frequently continued to the last.

Morbid dryness of the skin was common in Corfu, as well as in Egypt; but it was not so universal nor so obstinate as in the latter. On the contrary, many patients during the violent paroxysms sweated profusely, and when sudorific medicines

were exhibited, the skin often became moist. Yet the symptoms were not thereby relieved so generally as we are accustomed to see in cases of common fever.

A discharge from the *urethra*, similar to that in *gonorrhœa*, was also noticed. A man was reported to Mr. Sammut as having a swelling in his groin, which is an alarming symptom in the time of plague. He went to see him, and found, in addition to the swelling in the groin, he had a discharge from the *urethra*. In other respects, he appeared to be in health ; and when questioned as to his having had any suspicious connexion, answered in the affirmative, and that he believed the complaint was owing to that. He was not of course ordered to the hospital, but Mr. Sammut continued to visit him at his house. In a short time, the unequivocal symptoms of plague came on ; he was then sent to the hospital, where he died in a few days.\*

In some cases, the thirst was intolerable, which nothing could quench or alleviate. In others, this symptom was not at all remarkable.

In several patients, there was a constant watchfulness and restlessness till death ; and in some of those who recovered, it was often a long time before they enjoyed natural and refreshing sleep. In the cases where sound composing sleep was enjoyed, it was considered favourable.

Some of the patients complained of a burning heat all over them.

It was truly distressing to observe the rapidity with which a family, or the different persons in a tent, dropped into the grave, one after another, which nothing could prevent.

Soon after the malady broke out in Saint Theodoro, a family of the name of Curri was attacked, consisting of nine persons, of whom eight died of the plague, whilst the ninth, a boy only five

\* The account he gave might have been true, or it might have been to deceive the medical officer, for fear of being sent to the hospital ; none but practical men can know the deceptions that are used in times of plague.

years old, escaped. A woman, from motives of compassion, took the poor child out of the house, in which were the dead and the dying; she also escaped.

Nor was it less painful to remark with what singular violence this most unrelenting enemy of human life attacked pregnant women—thus, as it were, striking at the very root of existence in the destruction of the unhappy mother and her offspring. The abortion was almost always preceded by hæmorrhage, which continued after that event had taken place, and the mother sank almost immediately under the consequent debility. *Petechiæ* frequently appeared among these women, but very rarely buboes. Yet sometimes the body did not exhibit any eruptive appearances whatever, and it became a doubt whether the woman did not die of the hæmorrhage, unconnected with plague; and I am persuaded that this supposition, when it led to the neglect of the necessary precautions, was attended with serious mischief. In one family in Lefchimo, considered healthy, the mother had an abortion and died suddenly, without her complaint being thought to be plague. The disease, however, soon manifested itself in the family, and one or two died. If immediate separation had taken place when the woman was taken ill, possibly the family might have escaped; at least, it was their only chance.

Although abortion, generally speaking, gives a more severe shock to the female constitution than a natural labour, even when attended with some untoward circumstances, yet it rarely happens that women die immediately of the discharge. I have known a serious hæmorrhage in a delicate lady which would have endangered the life of the most robust man, and yet this lady soon recovered, and did well.

It is remarked, that in cases of abortion occurring from plague, the woman will sink under a trifling discharge, which, under other circumstances, would be productive of little or no inconvenience. It was so fatal in the plague of Corfu, that I

never heard of one who survived it. Both the mother and the child died.\*

Yet this disease, so violent and destructive in some instances, was in others very mild ; nothing particular, but a simple buboe or carbuncle, without any other peculiarly marked symptoms. Such cases were most common towards the decline of the disease.

Anastasio Caragiopolo, sixty-six years of age, inhabitant of the village of Anaplades, but then in the camp of *high suspicion*, was taken ill on the evening of the 16th of May, and was one of the last cases that occurred. He had been for some time in the camp, and several cases of plague had been sent to the hospital from his tent. The day he was taken ill was the eighth from the last accident there, and he had been careful in airing and handling his effects, keeping himself clean, and bathing in the sea.

When he was first taken ill, he complained of slight head-ach, and said he felt generally unwell, but did not name any other particular symptom. Although, as I said, eight days had elapsed from the last case of plague in his tent, it was clear that it could not be positively said that he might not have the plague. Yet his indisposition appeared to be so slight, that it was only supposed to proceed from a cold. Some purgative medicines were given to him, which relieved his head, and he said he felt better.

I saw him on the morning of the 18th, and was informed he had passed an indifferent night. On his coming out of the tent to speak with me, I perceived that he staggered like a drunken man, a symptom too well known. He had a failure of the voice, great prostration of strength, that peculiar appearance of countenance and eyes already described, with a white tongue and an incipient bubo in the right groin, which he said was free from pain ;

\* We had several pregnant women in the camps of observation, some of whom had their accouchement there, and with their infants did well.

and pressed it roughly with his hand, to show me that it was not painful. He seemed to be quite collected, and answered distinctly the questions put to him. I was informed that he had been employed before my arrival in making his last will. As this was a decided case of plague, he was immediately ordered to the hospital, which was only 200 yards distant, and he walked thither without much difficulty. He died next day, covered with *petechiæ*.\*

Another frequent and unfavourable symptom was a singular apathy and indifference even to the most powerful calls of interest and natural affection, from which nothing could rouse them. This symptom is mentioned, I believe, by Assilini, in his account of the plague which attacked the French army in Egypt.

Having mentioned the leading symptoms in the memorable plague during the reign of the Emperor Justinian, giving a short account of the disease as it showed itself in Egypt, and detailed the general and most remarkable symptoms under which it appeared in Corfu, I trust in so clear and distinct a manner as to enable persons of observation to discriminate betwixt the plague and other diseases, I have only further to add on this part of the subject, that whenever the train of symptoms which I have described occurs, conjoined with the additional circumstances noticed, we can have no hesitation in pronouncing the disease, whatever it may be designated by some, to be plague alone, and thus we shall avoid falling into that most fatal error of mistaking it for another disorder; an occurrence which, I am afraid, has happened more than once, and led to the most calamitous and dreadful consequences in the omission or procrastination of those remedies which can alone suppress it. But before we come to a positive decision on this very important matter, and pronounce the actual existence of plague, a report pregnant with such mighty consequences, and which, for a time

\* This case, with some additional particulars, is detailed in the Appendix, (Case XXVI.)

at least, will render it necessary to cut asunder the ties of all social enjoyment, both civil and religious, it behoves us to look well into the case, and examine minutely all the symptoms and concomitant circumstances; for whilst it would be highly criminal to conceal the plague one moment after its existence is ascertained, so it would be dreadful to spread any such report or alarm without a perfect conviction of its reality.

The *prognosis* in plague is always unfavourable, but some estimate may be formed of the favourable or unfavourable termination of the disease from the moderate or violent nature of the febrile symptoms and external appearances.

Hæmorrhages, from whatever parts they come, are generally fatal. Dr. De Georgio, in his report, says only one of seventeen patients who had this symptom recovered. *Petechiæ* and *vibices* are almost invariably the immediate forerunners of death. In the plague of Corfu, I could not learn that any person, either male or female, who had these eruptions, ever recovered. When the buboes were hard and indolent, and the skin not discoloured, it was considered unfavourable, especially if accompanied with a hot dry skin. When the skin was moist, the fever moderate, and the buboes showed a disposition to suppurate, it was considered favourable. But sometimes even in these cases fatal symptoms intervened, and the patient dropped off when it was least expected. When, however, the bubo suppurated kindly, with moderate fever, and the patient survived till after the fifth day, in general the case did well.

Dr. De Georgio, in his report, mentions that buboes in the parotid and submaxillary glands, as well as those behind the ear and in the neck, were generally fatal, and that those in the axilla were more dangerous than those in the groin.

## CHAPTER XII.

## On re-infection and relapse.

I HAVE already noticed that several of the convalescents from plague volunteered their services as expurgators, and although the men thus employed were from necessity continually exposed to the influence of contagion by handling and carrying the impested things, yet neither any of them, nor indeed any of the convalescents, suffered from *re-infection*, and certainly none could be well more exposed to the contagion than the former were, independent of the great fatigue, the extreme hot weather, and the privations which they every day suffered. I am therefore fortified in the opinion, which is indeed almost universally received, that patients who have once passed through the disease are in little danger from a second attack that season, and perhaps less susceptible after a lapse of years than they had been before they were attacked.

With regard to the terms *re-infection* and *relapse*, there appears to have been some confusion, caused by using indifferently the one for the other, though they are distinctly different. I would define *re-infection* to be a return of the disease some time after the patient had been completely cured, that is, with the sores healed, and the febrile symptoms completely gone. Should such person be again exposed to the contagion, and again contract the disease, he has a fresh attack, and this is *re-infection*.

I take the term *relapse* in the acceptation in which it is given in the *Traité de la Peste*—“Ce que l'on doit proprement appeller *rechute*, est la suite d'un mal, qui n'a pas été bien guéri; et qui se renouvelle par un reste de malignité, que



les remèdes, les precautions, et le tems, n'ont pas entièrement détruit."

In illustration of this definition, which appears to me a very just one, I would mention the case of Jacometto Lavrano,\* belonging to Clomo; the first case mentioned under the charge of Mr. Saisset which bears directly on this point. This gentleman, in his conversations with me on the subject, seemed to consider these *relapses*, or rather the breaking out of fresh symptoms, as so many *reinfections*, or, as he termed them, fresh attacks, although I think it is quite evident that the patient was all along labouring under unequivocal symptoms of the disease from the first infection, which was attacking one part after another, and he seemed to me to mistake these accessory symptoms for signs of *reinfections*.

In fevers, do we not see that patients, whose convalescence is pretty well established, fall back, and this oftener than once, from various irregularities, and other causes, which it is not necessary here to enter upon? Such occurrences are termed *relapses*, and not *fresh attacks* of the fever, because the patient has never been thoroughly well; whilst, on the other hand, if he has been perfectly cured for a considerable length of time, a return of the disease would be correctly denominated a *fresh attack*. I am aware that some fevers, particularly those of the *intermittent* and *remittent* type, not unfrequently leave a disposition in the system to return after a very considerable lapse of time; and this disposition is so well known to exist in some persons who have had the *ague*, that for many years after they have had it, they feel unwell at that particular season of the year at which they contracted it, and seem to be remarkably susceptible to the state of the weather about that time. Yet I apprehend the plague leaves no such disposition behind it. I myself have known several persons, who have safely passed through this disease, some of whom had it many years ago, and from all the information I could collect from them,

\* Vide Appendix.

their state of health was, and had been, as perfect as it ever was before, and they never felt at an after period anything which they could fairly attribute to that cause. Such cases, however, as the private of De Rolle's regiment, already noticed, or where there has been any permanent organic affection, must of course form exceptions; but happily these occurrences are very rare.

## PART III.

### NARRATIVE OF THE PLAGUE OF LEFCHIMO ; ITS INTRODUCTION AND PROGRESS.

#### CHAPTER I.

Short account of the plague district—Subject to autumnal remittent fevers—  
Introduction of the plague into Lefchimo.

BEFORE entering on the narrative of the plague which raged in the district of Lefchimo, in the island of Corfu, towards the latter end of 1815, and till its final suppression in the month of May of the following year, it may be proper to give a short account of the local situation of the district, and of the manner in which the calamity was introduced into it.

The impested district comprehended all the lower and southern part of the island, from Messongie, close to the Casa Alamanno, where the principal *cordon* was established, and which extended along the banks of a river almost from sea to sea; so that this military line completely cut off Lefchimo from the rest of the island. This tract of country is about 40 miles in circumference, and in the upper part, or district,\* is a good deal varied by hill and dale. Some places are close and woody, and covered

\* By the *upper part* of the district—an expression which I shall have frequently occasion to use—I mean the whole tract of country between both seas, extending in a south-easterly direction from Casa Alamanno to Casa Politi, and from thence across the country in an oblique line to Critica on the opposite coast. By the *lower part* is meant the whole remaining south-eastern extremity of the island.

with olive plantations or copsewood. Part is cultivated as vineyards and corn-fields, but by far the greatest portion is in a wild state. It is much intersected with rivulets, which in the summer are often quite dry. The roads are extremely bad, and indeed they scarcely deserve the name. In winter, when the ground is soft and boggy, they are almost impassable. Over this extensive tract of country, twenty-seven villages or towns, besides a considerable number of detached houses, are scattered. Of these towns or villages, fourteen had been attacked by the plague. And although measures had been taken for extirpating the malady before my arrival, it could not be known, from the desultory manner in which the plague had started up in several places some short time before, how far the disorder might be considered as suppressed in other places.

To the close, swampy situation of the district must be attributed the frequent appearance of an autumnal remittent fever of a bad type; and it is probably owing to this that when the plague first broke out it was considered to be only a return of the epidemic.

I was informed by Dr. De Georgio, who was in the immediate charge of the pest-patients, and who had practised as a professional man in the district for five years preceding 1815, when the plague broke out there, that during all that time, in the course of his practice, he had occasion to treat between two and three hundred of these cases; but he does not remember ever to have seen any of his patients with buboes, nor those particularly marked symptoms which he saw afterwards among his plague-patients.

In investigating the manner in which the malady was introduced, much pains were taken by myself and the other medical officers during our residence within the district. Some obstacles were thrown in the way of inquiry by those who wished to screen their friends, who were strongly suspected of being concerned in the business. The result of all our inquiries, however, fixed its introduction on a smuggling vessel, commanded

by a Captain Gerasimo Spirachi, from the opposite coast of Albania, which disembarked her cargo at the magazine on the shore, close to the Casa Politi, (see the map,) to which the things were carried and opened afterwards.\*

It was ascertained, through the diligence of Assistant-Surgeon Gemmellaro, of De Rolle's regiment, serving under my orders, that some cases, or bales of goods of some kind, had been secretly landed from the vessel, and carried up to that particular house ; that soon after they were opened, the family and servants began to fall sick, and some of them to die suddenly.

This was declared upon oath, according to the solemn and impressive manner prescribed by the rites of the Greek church, by a servant-girl belonging to the house, then a convalescent from plague, in the hospital. This girl mentioned, that soon after the sickness broke out, she fell very ill, and continued so for a long time ; and I am persuaded that it was so, for she showed me the cicatrix of a carbuncle on her breast, which was at least five inches in circumference. She remembered seeing the things brought up to the house, and that soon after the family became sick. She was by no means willing to give this account, from an apprehension that it might bring her master into trouble.

The account this young woman gave was in all the essential points confirmed by the testimony of other respectable witnesses, so that I have no reason whatever to question her statement, which I believe I may say was credited all over the district.

I ought not to deny that there were some reports in circulation differing from the account which I have just given ; but I could trace them to no satisfactory sources.

On further inquiry into the matter on my return to the city, after my liberation from the plague-district, I learned that a

\* As to the captain or his vessel afterwards, I was never able to obtain any satisfactory information. But I do not wonder at his keeping out of the way, aware as he must have been of the punishment he deserved as a smuggler, and which no doubt would have been inflicted on him to the full extent had he ever made his appearance.

brother of her master, Signor Politi, stung with remorse at having been concerned in the introduction of this calamity, had destroyed himself; and that long before the breaking out of the malady, the Politis had been suspected of favouring contraband traffic, and were, in fact, smugglers.

It was currently reported in the district, and also generally believed, that among the smuggled things which were sent for sale to the village of Marathea, there was a parcel of red caps, articles which the Greeks are accustomed to wear, and it was after these caps had been sold in Marathea that the disease appeared there; and to these caps was the introduction of the disease there attributed.

It was in this village that the malady first excited the public attention; and I learned that a report from the justice of peace in the district, about the 18th of December, on the subject of the sickness which prevailed there, was the first intimation which the government had of the matter, and this was some time after the malady had broken out, and when, in fact, it was general in the village. Up to this time, the sickness in the Casa Politi seems to have been carefully concealed.

I was never able to ascertain with certainty whether the disease first appeared in the Casa Politi, or at Marathea; but I learned from undoubted authority, and by comparing the dates, that it appeared about the same time in both places, and excited alarm in each of them by the violence of the symptoms and the sudden deaths.

I understood also, on further inquiry, that shortly before the disease was known to exist at the Casa Politi, several of the villagers belonging to Marathea had been employed in working there; and after their day's work was ended, they used to return in the evening to the village, by which means a constant intercourse existed betwixt the two places; and although I inquired very particularly into the matter, I was unable to discover that any of the inhabitants belonging to the other villages had been there about that time.

## CHAPTER II.

Propagation of the calamity in the upper district—First in the village of Marathea—Mr. Tully sent to inquire into the sickness prevailing there—Did not consider it to be the plague—Measures of restraint entered upon—The sickness superstitiously imputed to an evil spirit—Propagated by the priests in the villages of Perivoli and Anaplades—In Argirades—Troops sent into the district—Also medical officers—Melancholy occurrence among the troops from a violation of quarantine—Propagation of the calamity in the village of Rumanades—In Neocori—In Cuspades—In Clomo—Another distressing occurrence among the troops from a violation of quarantine—Saint Dimitri impested—Also Critica—The other villages of Upper Lefchimo not impested—Necessity of some restraint in places not impested—Want of confidence necessarily existing in the time of plague.

AMONG the villagers belonging to Marathea who had been employed on the occasion mentioned at the Casa Politi, were some persons belonging to the family of a man named Marco Masaracci, and I ascertained in the most satisfactory manner that the malady first appeared in this man's house. The first person attacked by it was one of his sons, a boy four years old, named Spiro Masaracci; and on the same day, a young woman, the daughter of one Nicomani, who had slept with the boy. This young woman, it appears, had a swelling in her neck, and another in her groin; and both died after three days' illness. For two days after, nothing further occurred in the family; but on the third, another son, who had been out shooting, fell ill, and died on the fifth day after he was attacked; he had a bubo in his groin. The distracted parents, after carrying their son to the church to be buried, found, on their return home, a female infant, only fourteen months old, very ill of what they took to be a kind of fit, which carried her off in a few hours.

After this, Masaracci's wife was attacked and died, after an illness of seven days, during which she had the most furious delirium at times and irregular exacerbations of fever. She complained of dreadful headach, had violent rigors, in one of

which she expired ; and two days after, her husband also was carried off with nearly the same violent symptoms.

A few days after this melancholy destruction of Masaracci's family, his brother, Nicola Masaracci, was attacked with a high degree of fever ; he had two inguinal buboes, and died on the fifth day.

Almost at the same time, the son of this man, and afterwards his wife, Stamatella, fell sick and died ; both had buboes.

These occurrences took place, and, as I was informed, sixteen persons died, before any report on the subject was sent to Corfu.

On the receipt of the official communication from the justice of the peace in the district relative to the sickness in Marathea, his Excellency Lieut.-Gen. Campbell, then the King's Commissioner, directed an inquiry to be made into the matter ; and Mr. Tully, who was at that time president of the board of health and the senior medical staff-officer, accompanied by two of the principal physicians of the island, were sent down to investigate the affair, and report on the subject.

It appeared from their inquiry, that the disease which had excited the alarm in the village had broken out nearly a month before ; but no mention is made by Mr. Tully of any sickness in the Casa Politi ; nor do I know whether he was at all aware of it, though I rather think not.

In Mr. Tully's official report of the prevailing sickness at Marathea, he seems to detail in a distinct manner the general train of plague symptoms ; and I am at some loss to account for the conclusion he came to, that the disease was *not plague* ; whilst at the same time certain measures of restraint were recommended, and to a certain degree carried into effect.

About the time the report from the justice of peace was transmitted to the city, there was a considerable degree of alarm prevailing in Marathea on account of the sickness, which naturally extended to the seat of government. Soon after, it was thought proper to take measures of precaution to preserve



the city. Troops were therefore sent down to Lefchimo ; a cordon was established, so as effectually to cut off that district from the rest of the island ; barriers were fixed, and other means adopted to prevent all means of communication between the city and the rest of the country.

The people of Marathea were unable to account for this violent disease, which had appeared so suddenly, and was so fatal, among them, and superstition imputed it to some evil spirit that had got amongst them. They were taken ill in the most unaccountable manner ; and when asked what was the matter, they said they could not tell, but at times they felt as if they were mad. Furious delirium and violent exacerbations of fever were particularly remarked. With the view of driving away this imaginary demon and tormentor, a convocation of certain clergymen was called, public prayers were made, and other religious ceremonies were performed. The following clergymen formed this council, or convocation—viz., the Papas Coluri and Meari, belonging to Perivoli ; and the Papa Metaxa, belonging to Anaplades, in the lower part of the district ; and in the execution of their solemn and religious duties, according to the rites of the Greek church, they entered the sick houses and had free intercourse with the diseased, after which they returned to their own homes, carrying the contagion along with them, as was lamentably discovered soon after.

The family of the Papa Coluri at this time, as reported to me, consisted of seven persons. He himself died on the 16th of December, three more died about the 24th, one on the 31st, one on the 1st of January, 1816, and only one escaped.

The family of the Papa Meari, belonging to the same village, consisted of four persons, of whom two died suddenly about that time.

The malady thus introduced into Perivoli was still further disseminated by the imprudence of Coluri's wife ; as reported to me by Mr. Muir, assistant-surgeon of the medical staff, who was for a long time resident in that village, for the purpose of look-

ing after the health of the inhabitants. That officer gave me the following relation:—When the Papa Coluri died, from motives of charity, and perhaps in compliance with the wishes of her departed husband, his wife distributed his personal clothes among the poor of the parish, giving to some his shirts, to others various articles of his wearing apparel; and it was remarked that all who had received of these presents, died, as also almost all their families, the disease seeming to spread among them like wildfire. The wife herself fell sick, and died a few days after her husband.

I have already noticed how fatal the malady was in the family of the Papa Metaxa in Anaplades; but I could not learn the particulars of the extension of the disease thus introduced into that town; at least, I could not trace it with that degree of accuracy which would authorize my detailing it here; but it did extend itself after the Papa's return thither; and I ascertained, as I have already mentioned, that there had been no plague there before.

Whilst these things were going on in the villages of Perivoli and Anaplades, the malady was further extending itself in the unfortunate village of Marathea, which, at the breaking out of the disorder, consisted of 48 souls. Of all these, only 14 remained at the time I left the district, of which number three recovered from the disease, and eleven escaped it altogether, by having been removed to an encampment, after the village was burned, on or about the 29th December.

Some time after the three papas had held their famous council at Marathea, it appears that two more of these clergymen belonging to Argirades, a neighbouring town, went thither also, with a similar intention, and to assist at the burials of the dead.

These were the Papas Janni Pannojotti and Theodoro Catavatti. The family of the former consisted of five persons, of whom he himself and three died in a short time, only one escaping.

The other papa, Catavatti, I understood was a solitary individual of retired habits, living all alone. He also fell sick, and died soon after his return from Marathea.

I was likewise informed, that about the time the two last-mentioned papas went to Marathea, for the purpose of performing their religious ceremonies, a poor labouring man, named Luli Pandi, a native of Argirades, went thither also to see Masaracci's family, and buy some corn, and stayed there a day or two, for the purpose of assisting the family in various offices. This was the first person who died of the plague in Argirades.

For this information respecting Argirades, I am chiefly indebted to Assistant-Surgeon Alexander, who had been stationed there for several months to watch over the public health in that place, and who thereby had the best means of gaining information on the subject. This testimony was besides confirmed from other sources.

The same medical officer favoured me with a statement of those attacked by the disease up to the 1st of February, 1816. He makes the whole number to be thirty-nine, of whom thirty-two died, and seven recovered. Of the former, four belonged to the family of the unfortunate labourer Pandi, who was accessory to the introduction of the malady, which seems to have attacked the relatives of this man with singular violence, for I observe in the nominal list of deaths not fewer than twelve persons named Pandi, several of whom were connected with him. Thus by these unfortunate individuals was the disease caught, and communicated to the relatives and the families with whom they had intercourse.

From February the 1st to the 17th, no case of plague occurred in the village. The work of expurgating the houses was going on, and the disorder was supposed to have been suppressed there. But about that time it re-appeared, in consequence of imprudent intercourse which had taken place betwixt one of the expurgators and the people of the town, as already mentioned. Mr. Alexander states that by this second invasion

of the disease, fifty-four persons were attacked, of whom thirty-nine died and fifteen recovered.

Troops had been sent into the impested district about the 28th of December, with general instructions to prevent intercourse among the villages. But I am not aware that at that time it was considered prudent or safe to quarter them in the villages. Shortly afterwards the people were directed to confine themselves strictly to their houses, and parties of military were sent in to see that these orders were complied with. *Patroles* also of the inhabitants themselves were ordered to prevent all intercourse, but I am disposed to think that these civic guards were very remiss in the performance of this important duty; and I have the more reason to believe that this was the case, as many of them could not be persuaded that the disease was plague, and were quite impatient at anything like quarantine restraints; consequently they were of little or no use.

These measures, so far as they went, were, no doubt, very proper. But from all the information I received, I am inclined to think that they were not acted upon with sufficient vigour, nor carried into full extent, so that it became necessary afterwards to trust as little as possible to these domestic guards, and to rely only on the military, who were subsequently quartered in the villages, and directions were given to enforce, by the severest examples, should such be found necessary, a proper obedience to the quarantine restraints, in preventing all external, as well as all internal intercourse, except what was authorized by the rules of the quarantine. Medical officers were then sent to these villages to attend the health of the inhabitants, and examine them frequently, so as to lay hold of the disease the moment it showed itself.

Not only were the troops, although constantly employed in traversing the villages, day and night, exposed to no additional danger, whilst they acted in strict conformity with their orders, which were to avoid all communication with the inhabitants, but in the space of ten days from the time their orders were effectually

put in force, the second invasion of the plague in Argirades was completely extinguished, and never appeared afterwards.

But whilst I mention it as a fact not to be disputed that troops and other persons may be employed in the police duties of plague and yet escape the malady, if they avoid all contact with impested persons or goods, still it is not for a moment to be doubted but that they are as liable as any to be attacked by it, should they be so abandoned and lost to all sense of honour and propriety as to violate their orders, which they are sometimes tempted to do, in the hope that they may escape with impunity, or that their crime may remain undiscovered; or that, after the lapse of a certain time, and the intervention of other circumstances, which they themselves calculate upon, there is no danger to be apprehended; as the following instance proves.

Some time after the detachment of De Rolle's regiment was stationed at Argirades, and when, from the favourable state of the public health in the village, the dread of the plague had in some degree subsided, one of the soldiers, thinking that the plague was now all over, and that there was no further danger of contracting the disease, secretly left his post, and went into one of the impested houses in search of wine and plunder at the time it was expurgating, and having had communication with the expurgators, joined his guard, without their being at all aware of the circumstance, or suspecting where he had been. Soon after his return, he was taken ill, and died in about twenty-four hours from the commencement of the attack. His illness, which was immediately ascertained to be plague, naturally caused great alarm; and those in the same tent were now instantly separated from the rest of the detachment, and placed in rigid quarantine. Unfortunately, however, the man himself was not the only sufferer; for notwithstanding that prompt measures were used, the disease attacked seven men of the detachment before it was got under, of whom five died, and two recovered, mostly, if not all, of his own comrades, who lodged in the same tent with him. Had not these measures of separa-

tion been carried into effect the moment the disease was discovered, I have not the least doubt but that the greatest part, if not the whole of the detachment, which I think at the time consisted of an officer and eighteen men, would have suffered. The blankets, and, in short, every susceptible article which they possessed, except the clothes they had on at the time, were immediately burned.

About this time an instance of escape somewhat singular occurred to an officer of De Rolle's regiment, while he was stationed in the village of Argirades. He had occasion to send one of his men on a message, who was to bring back a paper parcel. The man when ordered on this duty appeared in perfect health; for if there had been anything known to the contrary he would not have been put on any kind of duty. Shortly after he returned, and delivered the parcel into his officer's hands. At this time he appeared to be drunk, and was severely reprimanded for his conduct. Soon after he became very ill, and on examination was found to have the plague. He was sent to the hospital, where he died. The officer himself escaped, but his feelings for the next fifteen days were not very enviable; for although every human precaution was adopted, it could not be said that he was free from plague till the expiration of that period.

Signor Trivoli, a gentleman of considerable property in Rumanades, and an intelligent man, who resided in his own house in the village, during the whole time that the plague was raging in the district, and who was intimately acquainted with the people not only of his own village, but also of the neighbourhood, gave me the following account of the introduction and progress of the malady there.

The disease was introduced into this village from Marathea in the following manner:—A son of Marco Masaracci, whose family was the first attacked in Marathea, was married to a native of Rumanades, the daughter of a woman named Nicolitta Critica, and resided in this last place. This man,

named Demetrio Masaracci, hearing that his family were sick at Marathea, went over to see them. Shortly after his return, his family, which consisted of five persons, fell sick, and three of them died suddenly. The first victim was Nicolitta Critica, his mother-in-law, about forty years of age.

Two or three days after this, the Papa Janni Duca, the clergyman of the village, who, it seems, had also been at Marathea to offer his prayers on the melancholy occasion, fell sick on his return to Rumanades, and impested his family, which consisted of four persons. He himself and his son died in four or five days. His wife died a short time afterwards in the encampment which had been formed near Marathea, to which she had been removed after that village and Rumanades had been burned, so that only one of the family escaped.

Signor Trivoli further stated that about this time an inhabitant belonging to the village, by name Marino Duca, had a son, who was married to a woman of Marathea. A female relation of this woman was sick there, and he and his wife went over to see her. They found her very ill, and she died in a day or two afterwards.

Duca and his wife being the nearest heirs to this woman's property, carried her effects to their own house in Rumanades. The family shortly after fell sick, and of six individuals composing it, five died in a short space of time. The only one who survived was Duca's wife.

The total number of persons in the village, before the breaking out of the malady there, was forty-nine, of whom sixteen died; and these mostly belonged to the families who had been at Marathea.

I think it is thus clearly ascertained that this malady is propagated not only by impested persons, but also by impested goods.

Neochori was attacked in the following manner:—The wife of one of the villagers, named Panajotti Zervo, went to the village of Argirades, about a mile distant, to see her brother,

Spiro Cusciate, and his family, who were ill at the time the sickness prevailed there. This was about the eighth of March, and when that village was impested a second time, as already stated. During the first time the plague raged in Argirades, the village of Neochori continued healthy, the inhabitants being obedient to the quarantine orders; and happy would it have been for them had they always continued so.

It appears that this woman was in a state of pregnancy at the time; that on the twelfth, four days after her return, she was taken very ill, and died, of what was supposed to be the consequences of abortion, and not of the plague, for the body exhibited no peculiar symptoms on examination after death. Her husband was the next person attacked, and had buboes in both groins. In his delirium he escaped from his house, and died on the fourth day from the attack.\*

Another of the inhabitants was suddenly seized with giddiness and staggering whilst at work in the fields, which he attributed to having hurt his foot. He went home, and died the next day.

A boy, named Janni Mexia, ten years old, was attacked with a high degree of fever, and a swelling in his neck, on the twelfth of March; and died the next day in the pest-hospital established at Santa Trinita, a short distance from the village.

The mother of this boy, most deeply affected when her son was ordered to the hospital, pretended that she also had the plague; and complained of pain and swelling in the groin. And I have no doubt, from her distracted state of mind, but she was very unwell. Her object, however, was to obtain leave to accompany her child to the hospital, in order to attend on him herself, and watch over him with all a mother's care; thinking, what was no doubt very true, that her own attention to him would be greater than could otherwise be expected in a plague hospital; but without reflecting for a moment on the additional

\* The removal of the sick was not at this time so prompt as afterwards, nor the system carried into such immediate and vigorous effect.



danger she herself was exposed to by entering that hot-bed of disease. She did accompany him thither, and the next day had to experience the agony of seeing him carried out dead from it.

This unhappy woman remained in the hospital several days, evidently ill, but without decided symptoms of plague. She was doomed, however, to encounter another trying scene. Her husband, Spiro Mexia, was attacked by the disease, and sent from the encampment, to which his family had been removed, to the hospital on the 18th, and died on the 22nd. She herself at last showed decided symptoms of plague on that day, and was admitted as a patient. She died the following day. Both had petechiæ, and she herself had, in addition, a carbuncle on the breast.

As the village had been hitherto healthy, no troops had been sent into it; and, in short, the inhabitants were under no kind of restraint, except that of being directed not to go to the impested towns, or have any intercourse beyond their own immediate community. When, however, the disease was introduced in the way I have mentioned, and as the extent of the mischief could not be ascertained from the promiscuous intercourse which had taken place amongst them, it was determined to remove the whole of them, except the Primate's family, to an encampment, which had been already formed at a short distance, in order the more effectually to watch over their health, and to lay hold of the disease the moment it appeared. This was the more easily done, as the number of the inhabitants was small; and, by so doing, the duty among the troops, which at that time was severe, was not increased.

According to the statement which I received of the disease in this village, the deaths were fourteen and the recoveries three.

The disease was introduced into Cuspades in the following manner:—

The clergyman of the parish, the Papa Stephano Alessi, had a brother residing in Rumanades, who, during the time of

the sickness there, became alarmed for his own safety; and in order to escape the contagion, came to stay with the Papa, never thinking of the possibility of his being already impested from any previous intercourse with the people of his own village. Soon after his arrival in Cuspades he felt himself ill, and died suddenly. The Papa's family became also impested, and all of them died. From them the disease spread to other families in the village. The number attacked was fifteen, of whom twelve died and three recovered.\*

On a particular examination of the inhabitants of this village some months afterwards, it was discovered that several of them exhibited marks as of buboes; and these appearances, coupled with their own accounts, that they had felt slight indisposition at the time they had these swellings, led me to suppose that they had had the plague in a mild degree; and that, for fear of being removed from their houses, they had carefully concealed the circumstance. These appearances were observed among the inhabitants of some of the other villages also.

One of these families I thought it incumbent upon me to send, with their susceptible effects, to the camp, to perform quarantine, as I was not at all satisfied that they had purified their property. I also directed their house to be expurgated on their removal from it. When, afterwards, their health and effects were proved by time to be free from plague, they were sent back to their village; for I thought it necessary to leave nothing to chance on an occasion like this.

Monsieur Saisset, the medical gentleman resident at Clomo, favoured me with an account of the introduction of the disease into that village, where he was stationed from the end of December, 1815, till the final removal of all quarantine restraints.

From his account, as well as from other sources, I learned

\* This shows how careful one should be in the time of plague not to admit strangers into a healthy place, particularly those coming from where the plague is known to exist.

that the malady was brought into the village from Marathea. A man of the name of Tassi Lavrano, was married to a woman belonging to Marathea ; this woman went there to see some of her friends, who were ill at the time the sickness prevailed there in December. The day after her return to Clomo, she and her family were attacked by the disease.

Of the six individuals composing this family every one was attacked, and five died. The sixth, Constantino Lavrano, a lad fifteen years old, recovered, after a very severe illness. From them the disease spread to the other families in the village. M. Saisset, on his arrival, found the sick scattered all over the place.

His first step was to collect the sick into one place in the best way he was able, and to recommend to those families who were healthy, to avoid all intercourse with the rest ; and these necessary orders he endeavoured to enforce by every means in his power, until the arrival of the troops, when quarantine measures were adopted.

He states in his report that he received into his hospital 39 patients, of whom 28 died, and 11 recovered.\* From the best information he was able to obtain, he makes the deaths before his arrival amount to 18, making in all 46. The dead bodies, previous to his arrival, were buried in houses, and in different places in the neighbourhood, which caused much trouble and vexation afterwards.

The same distressing occurrence happened among the military stationed here, as took place in Argirades, and from the same cause.

The detachment of De Rolle's regiment, stationed within the village for this and various other duties, consisted of an officer and 39 non-commissioned officers and privates. One of the men, most shamefully, and in contravention of the orders so often given, the necessity for which was also most strongly impressed

\* M. Saisset transmitted to me some of the most interesting of these cases, which will appear in the Appendix.

upon their minds, entered the house of an impested family, supposed to be rich, in the hopes of finding there some valuable plunder, and after ransacking the house, contrived to return to his comrades without letting them know where he had been. He fell sick soon after, and then confessed what he had done. This, of course, alarmed the whole detachment exceedingly; for as they were all in free intercourse with one another, no one could consider himself safe, or say how long he might escape the disease. As the case was unequivocally plague, the man himself was immediately sent to the hospital, where he died the fourth day after.

The men having all mixed together, it was impossible to foretell where the mischief would end; and no human precautions could counteract what was already done. Whenever any of them fell sick, they were instantly separated and sent to the hospital. Every article of a susceptible nature which they possessed, was forthwith destroyed, after which they were removed to the camp, which at this time was concentrated near the Casa Politi, to perform a strict quarantine, where those in one tent were prevented from mixing with those of another. By these means the malady was put a stop to in the space of ten days, betwixt the 15th and 25th of March, when the last case of plague occurred among them; but this was not before ten of them were attacked, seven of whom died, and three recovered. In this case I have not the smallest doubt that unless these prompt and decided measures had been adopted, the contagion would have spread to the whole, or, at least, would have been considerably more fatal.

I find by the returns sent to me, that during the ten days the plague was existing in this detachment, three of them had been sent to the hospital previous to its removal, and seven afterwards. The remainder of the detachment, with their officer, were afterwards removed to the camp district, to finish their quarantine, and were made available for the duties there.

Saint Demetri is a small village, about a mile distant from

Clomo, and was supposed to be impested from it ; but I was never able to trace the chain of communication. One family only was attacked there, of which two persons died ; but the family being immediately removed with their effects, and their house expurgated, the malady was speedily suppressed.

I could never learn to my own satisfaction the precise manner in which the village of Critica became impested ; but from all the information I was able to collect, the disease here, as well as in the village of Demetri, was confined to one family, named Vlasi, which showed symptoms of plague on the 10th of March. The family were removed from their home, the moment symptoms appeared in it. It consisted of five persons, of whom four died, and only one, a young woman with two carbuncles, recovered. The deaths were as follow :—one on the 12th, one on the 14th, one on the 15th, and the last on the 16th. By these prompt measures the disease was speedily rooted out, and never appeared there afterwards.

In this village, as well as in Saint Demetri, I can only attribute the exemption of the people from the disease for so long a time, to their having cautiously avoided intercourse with the neighbouring villages when the plague was raging in them ; for they had a great dread lest the calamity should find its way into their village, and kept themselves apart from their neighbours ; and to this cause alone I impute the non-extension of the malady when it was introduced ; for by this time, the system of avoiding all intercourse was so well understood by the inhabitants, that no family would intermix with another.

It is highly necessary in time of plague to keep alive this dread of contracting the disease, which is one of the most powerful means we possess of preventing any intercourse from taking place, and thus to keep the malady in check. And, indeed, without this, all our efforts will often be rendered nugatory. Wicked persons may, from various motives, be guilty of violating the laws of quarantine, which circumstance cannot, perhaps, be immediately known, (and they themselves will probably be the

sufferers for such misconduct,) but if all intercourse with them is avoided, the malady cannot do much mischief.

In the instance of this family it appears that the symptoms of positive plague manifested themselves at once, and the immediate removal of the whole became a matter of imperious necessity for the safety of the rest of the inhabitants, who thereby happily escaped.

The remaining villages of upper Lefchimo, Coracades, Vasilatica, Colochiti, &c., I have reason to believe were never impested; for during my residence in the district I was at great pains to ascertain this fact, not only personally, on my different tours of inspection in these villages, but also from every other source whence I was likely to gain correct information. The villages were small, and, as I have been informed, little intercourse at any time took place between them and the others. After the arrival of the troops in the district, the impested villages were cut off from those that continued healthy, or, as it was termed, *clean*. They were allowed to have free intercourse *within themselves*, but not permitted to have any communication with those actually impested, nor even with any other of the *clean* or healthy villages; and if any one was found trespassing these orders he was punished in some way or other for his misconduct.

Latterly, however, when they saw the ravages of the disease all around them, and found that by acting up to these orders they escaped, there was less danger of their attempting to violate them.

It may be thought by some that the villages which were *clean* ought not to have been interfered with, or subjected to any restrictive intercourse among one another, and that it was time enough to do so when sickness appeared in them. But to this I answer, that it would have been then too late, for we ought to anticipate the enemy; and so far were the measures here proposed from being harsh and cruel, that they were considerate and merciful in the highest degree, not only towards the people

themselves, but also towards the community at large. For who could tell that, if left entirely to themselves, they might not at some time or other have clandestinely visited the villages where the plague was raging or still lurking, and have brought back the disease with them, which might eventually have prolonged the quarantine of the impested villages, and, indeed, of all concerned. It was to prevent the possibility of this being done that the people were thus confined to their own villages. This they no doubt thought at the time a very great hardship; and many representations were made to me upon the subject. But I would not yield to their remonstrances. The principal object in the first instance was, by every human means to eradicate the plague; when, as a matter of course, the removal of all restraints whatever would follow.

In the time of plague, suspicion and a want of confidence are unavoidable, and we cannot, on many occasions at least, believe what is said, or the promises that are made. Persons of the highest integrity, under such circumstances, cannot be fully depended upon. The laws of health do not acknowledge or countenance the term *honour* in its common acceptation, and we must trust as little as possible to any one.

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### CHAPTER III.

Propagation of the plague in Lower Lefchimo—Saint Theodoro impested—Also Melechchia—People anxious to conceal indisposition in the time of plague—A pest hospital ought not to be established in a town if it can possibly be avoided—Cruelty and inexpediency of burning impested houses—Removal of the *susceptible effects* from *impested* houses—Effects of persons simply *suspected*—Permission granted in Lefchimo to the class of simply suspected to take their effects along with them to the camps—Punishments sometimes necessary.

HAVING traced the malady from its development at the Casa Politi and the village of Marathea to the other villages of the

upper district, I shall now briefly prosecute the same subject in the lower district, in the five neighbouring villages of Ringlades, Anaplades, Saint Theodoro, Potami, and Melechia, where it was lurking at the time I was nominated to the superintendence of the plague duties; and where it afterwards frequently appeared, but was always immediately checked, and finally eradicated in a short space of time.

The other four villages in the lower district, Neocori, Paleocori, Dragotina, and Spartuo, were never attacked by the malady.

The five villages I have mentioned as attacked by the plague, are all situated close to each other, as is seen by the map, and the whole distance from Ringlades to Melechia is little more than an English mile. Indeed, Potami and Melechia may be considered but as one and the same, being only separated by the small river Potami.

I have already stated that Anaplades became impested direct from Marathea, by the papa Metaxa; and the disease soon after spread over that village.

I am without a particular account of the families who were first attacked here; but I know that it spread after communication with the papa's family.

Mr. Sammut, assistant-surgeon of the Corsican Rangers, a very diligent and zealous officer, was appointed to the care of the pest patients in the hospital which was established at Saint Theodoro, and continued in that charge till it was broken up, and transferred to the camp district near the Casa Politi.

I am not quite sure that it was precisely known in what manner Saint Theodoro became impested; but it was distinctly ascertained that the malady appeared there subsequent to its appearance in Anaplades. It might therefore have become impested from that place, from the usually existing intercourse, or it might have been introduced in the manner detailed by Mr. Sammut, who resided for several months in that town, in charge of the hospital established there, and was at great pains to investigate this matter.



He states that the malady broke out there early in January, and that it was imported direct from Perivoli in the following manner:—

The nephew of the Papa Colluri (who, we have seen, resided in Perivoli, and was amongst the earliest victims of the plague in that village) was married to a woman named Panajotti, belonging to Saint Theodoro, who with her family lived there. At the time the sickness prevailed in the Papa Colluri's family, this man went to see them, and soon after his return one of his children fell sick of what was supposed to be a sore throat, with swelling of the neck. A woman named Vlacka, who was considered to have some skill in such complaints, was sent for to see the child, and give her advice. Soon after, another of the family fell ill.

The woman's method of treating complaints of this kind, seems to have been a very rough one. She put her finger into the child's mouth, and irritated the internal fauces and inflamed glands. The poor child died in about two hours after this operation, in very great agony. Soon after, the rest of the family fell sick, one after another, and died suddenly. Last of all, the father, who had been at Perivoli, and brought back the disease with him, was also attacked, and died.

In the meantime, the woman Vlacka, who had gone to cure the boy, began to complain of being unwell. By and by the whole of her family fell sick; and of eight persons composing it, seven died suddenly and unaccountably, and the eighth, Andreanella Vlacka, who had a bubo upon her groin, very narrowly escaped with her life.

A family named Bulgari lived close to that of Panajotti, and both were in the habit of visiting each other. At the time, therefore, of the sickness in Panajotti's family, the Bulgaris went to see them. They became thus immediately impested, and the disease spread so rapidly over that unfortunate family, that five of them died after two or three days' illness; and the whole family, which consisted of nine persons, became in a short time extinct.

The disease thus introduced into Anaplades and Saint Theodoro soon spread to the other villages by propagation. It started here and there, and sudden deaths, which at the time could not be accounted for, were frequent. The disease would seem to languish for awhile, and then reappear with sad havoc in some families, whilst others entirely escaped.

The village of Melechia, although only separated from Potami by a small river, kept itself free from the calamity for a long time, by avoiding all communication with it and the other villages, at the time the malady was raging in them. But at length, trusting too much to their security, and probably, also, from some of the inhabitants, from avaricious motives, having had clandestine intercourse with the impested villagers, which was suspected, but not proved to my satisfaction, the malady was introduced, but was speedily suppressed by the plan of management, which by this time was more fully understood and acted upon than it had been at the first breaking out of the disorder. It reappeared after a considerable length of time, and this reappearance was satisfactorily ascertained by Mr. Tully to have been owing to clandestine intercourse. Yet the chief magistrate of this very village, the primate Cañta, whose wife and child died in the hospital, persisted to the last in maintaining that the disease was not plague, as I have before mentioned.

A want of documents prevents me from tracing the disease through all these villages, and from following its various evolutions in them. But, from what I have already said, I trust that the further prosecution of the subject as to the contagious nature of plague, and of its being propagated by contact, will appear to be quite unnecessary. We have shown that it frequently started among these villages, and that its appearance was almost always ascertained at the time to have followed some violation of quarantine.

In the time of plague, it is scarcely possible to get a correct account of the deaths it causes, particularly at the beginning. The fear of being pronounced impested induces families

carefully to conceal them; and this was proved to be the case in Lefchimo. Indeed, there is no means of ascertaining the matter but by careful medical inspection.

It was this dread of being considered impested, which in the beginning made the inhabitants most carefully conceal every kind of indisposition which occurred among them, and keep all so secret, that until we had ascertained the number of persons in each family, and had recourse to daily inspections by medical gentlemen, (and I must be allowed to say that those belonging to the British medical staff were by far the most diligent and efficient in the execution of this most important duty,) we never could perfectly know who were sick or who were well. Then, and not till then, were we able to ascertain what was going on, and to act with promptitude in laying hold of positive disease, removing the suspected, &c.

Mr. Sammut favoured me with a return of plague admissions into the hospital at Saint Theodoro, from the 28th of January to the 28th of the March following, when it was broken up, and transferred to the camp district, as will be noticed hereafter.

The total number admitted amounts to 147, of whom I find that 88 belonged to the village or town of Saint Theodoro. Of these only seven recovered, and of the whole only fifteen, making nearly one in ten.

Without being perfectly aware of all the circumstances, I am disposed to attribute the great number of admissions from Saint Theodoro itself, (although it is certainly larger than any of the other villages,) to the establishment of the hospital in it; which, indeed, was unavoidable, as there was no place in the neighbourhood which could be occupied as such. I beg here to observe that I am averse to an hospital being in a town, if it can possibly be avoided; for although every possible arrangement be made so as to cut off all communication with it, yet it is more likely that clandestine intercourse may take place with this hot-bed of plague, than if it were at a distance from the community. We ought therefore, in this, as in everything

else connected with plague, to trust as little as possible to chance.

Having in the Introductory Discourse pointed out the inefficiency and cruelty of burning impested houses, as a means of arresting the plague—a plan of operation, which, I again repeat, ought never to be resorted to,—let us turn for a moment to the removal of the susceptible furniture and effects from a house attacked by plague.

This, indeed, is no easy task; and one which I conceive ought only to be performed by the expurgators, in consequence of the danger attending it. The people themselves will doubtless be anxious to save their property, and to prevent its falling into the hands of a set of men who it cannot be expected will be careful of it, and who, in spite of every advice and injunction that can be given them, will sometimes destroy it even wantonly. This, when it happens, is extremely to be regretted; because no one, except those employed, can touch or interfere with the articles, without running the dreadful risk of becoming also impested. And, indeed, although the owners themselves may, from earnestly wishing to preserve their property, offer to take charge of it themselves, and purify it whilst performing their quarantine, yet I think it is questionable how far this permission can be granted in every instance, from the additional risk to which they are exposed, notwithstanding their already being in a state of high suspicion.

Latterly, however, permission was granted to this class to take as much of their goods with them as they could; which they purified whilst performing their quarantine. But it is one thing to expurgate the description of small and miserably furnished houses in Lefchimo—and another thing, the large, well-furnished houses, for example, in England. In the one case, all the susceptible articles they had could be removed; in the other, the thing is impossible. No means of transport could be provided, and even could that be done, it is hardly to be expected they could have proper convenience. The most that

could be done is to take their most valuable effects with them.

With regard to the effects of those who are simply suspected, the case is different. The public safety, no doubt, requires that the persons themselves should be separated from the community; but their effects being in the same state with themselves,—viz., simply suspected; see Introductory Discourse, p. 38,—they ought to be permitted to take with them every article they choose. It would be a most unjustifiable act to deliver up their houses to the expurgators, at least before positive disease appears among them.

Whenever the disease broke out, and it became necessary to send persons of this class to observation, I invariably afforded them every facility in my power to take with them whatever they chose. The permission thus granted had many advantages; for some of the things they carried with them added not a little to their comfort. Their effects also were thus in safety under their own care; whereas, had they been left in their houses, they might have been robbed or plundered; and, lastly, the period of their restriction was thus ultimately diminished by their performing their quarantine of observation, and purifying their goods at the same time; so that when they returned to their homes afterwards, they had nothing to fear from suspicion of plague remaining in them; and I am firmly persuaded that if this plan had been adopted earlier, much of the people's goods would have been saved, and they themselves would have been less reluctant to leave their houses, *for observation*, seeing, as they would then have done, that we had no wish to destroy or injure their property. Some took with them every article of a susceptible nature which they possessed; others, only what they judged most valuable. In giving this permission I could not, of course, violate the laws of quarantine, and endanger the health of others, by allowing those free of suspicion to assist them in their transportation; but they were suffered, under a military escort, to carry with them all

they were able to take. The military duty was thus unavoidably increased, but this could not be helped. It was of the very first importance to quiet the minds of the people, and show them clearly that we were anxious not only to subdue the plague, but, at the same time, to make the calamity bear as lightly on them as possible. It is doubtless proper to act with firmness, decision, and impartiality on such occasions; but much of the horrors of plague may be softened down by mild conduct and conciliatory measures. For, as I have already observed, people suffering under one of the greatest scourges that can afflict humanity, overwhelmed with sorrow at the loss of their dearest relatives and friends, and labouring under dreadful uncertainty as to their own fate, loudly call for everything that can soothe their distracted feelings. Yet, with every wish and endeavour to do so, it will sometimes happen that our very best efforts to accomplish this object will be construed into harshness and cruelty. We are not, however, on this account, or any other, to deviate from what is right and proper. The punishment of those who are guilty of a violation of the laws of quarantine is not the least painful duty we have to perform in the time of plague. Yet, without making some severe examples at times, particularly at the commencement, it will often not be found practicable to conduct the police management.

I have already noticed that during the period of my superintendence, it was not found necessary to have recourse to severe measures, except in one instance, the particulars of which are as follow:—

One of the *condannati*, or felons, employed as an hospital servant, having got drunk, became extremely outrageous, and maltreated Dr. De Georgio, the gentleman in charge of the hospital. The circumstance was soon after reported to me, when I immediately ordered him to be confined, and sent off a dispatch to head-quarters to apprise Major-General Phillips of the matter. I received an answer to say that a court-martial

should be appointed to try the man; and that if found guilty, the full sentence of the law should be inflicted on him, as an example to others.

Lest he should escape, and consequently do mischief, he was ordered to be secured by the other servants in the best manner circumstances would permit, and placed under the charge of a sentinel, to whom orders were given to prevent his escape (as he himself would be made answerable for his escape with his own life,) until a court-martial had decided the fate of his prisoner. The fellow made frequent endeavours to extricate himself; upon which he was repeatedly desired by the sentinel to desist, adding that he would otherwise execute the orders he had received. In the night, however, he had nearly effected his purpose, when the soldier, in execution of his orders, shot him dead, before the necessary arrangements for a court-martial were completed, which, no doubt, would have awarded the same punishment to the delinquent.

It is necessary at all times to keep up a proper degree of subordination, but it is particularly so in a plague hospital, where, from the very nature of the establishment, we have to do with such bad characters. I learned, too, that this fellow said he was determined to escape, and make his way to Perivoli, a neighbouring village, which with very great difficulty we had lately cleared of plague. And had he succeeded in his attempt, I have no doubt but he would have re-impeted it, and we should thus have had the whole work to do over again.

It is not to be forgotten that in plague one imprudent act, either of mismanagement in those who are entrusted with the executive arrangements, or by an open or clandestine violation of the laws of health, incalculable mischief may ensue, and the disease be spread far and wide. Thus, if persons performing quarantine in a time of plague are liberated before their state of health is sufficiently proved, or care has not been taken to

have their effects duly purified, the disease may be reproduced on their return home, at a time they least expect it. Cephalonia became impested in 1816 from some neglect of this kind at the quarantine establishment there. It was not fully known that the plague existed in Albania on the opposite coast, and the quarantine regulations there were little more than nominal.



## PART IV.

### PLAN OF MANAGEMENT IN THE PLAGUE OF LEFCHIMO.

#### CHAPTER I.

Concentration of the sick and suspected—The district divided into compartments, and no intercourse allowed between them—Mischief arising from not attending to the regular shutting-up of camps—Medical inspections in the impested villages—The people unwilling to submit to them—In ordinary indisposition, the people allowed to remain in their houses, and receive medical attendance there—Good effects of these measures—Felons employed in duties where there is the most danger—Persons once recovered from plague not likely to be attacked by it again—Advantages of employing convalescents from plague in the most dangerous duties.

WE have seen how widely the disease was propagated in Lefchimo, and to what cause its extension was to be properly attributed. It now remains for us to detail the plan of management which was adopted, and which so happily led to the speedy and complete destruction of the disorder.

On the breaking up of the army of Genoa, part of the general staff received orders to proceed to Corfu in March, 1816, and among them were Major-General, now Sir Charles, Phillips and myself. On reporting ourselves to his Excellency Lieut.-General Sir Thomas Maitland, Lord High Commissioner, General Phillips was appointed to the chief direction of the plague concerns, and myself to the immediate superintendence of the impested district, (thus superseding Mr. Tully, then at the

head of this duty and senior medical officer) to carry into effect there such instructions as I should receive from time to time from the Major-General, and to send to him daily a faithful account of all transactions.

The Major-General having been actively employed in the late plague at Malta, was particularly well fitted for this important charge; and I do not hesitate to acknowledge that it was owing to his excellent arrangements, and the uncommon zeal manifested by all concerned in this undertaking, that the calamity was so speedily and effectually subdued.

As a preliminary step to future operations, he directed that the pest establishments which had been stationed at Clomo, Saint Theodoro, at the convent of Santa Trinita, near Argirades, and at Marathea, should be concentrated in one place, on a large open space of ground close to the sea, at a distance from the villages, as marked in the map, *the camp district*. This movement was made with all due respect to the laws of quarantine, and also to the integrity of the different classes of persons to be removed. A magazine there served for the purpose of an hospital; and it is worthy of remark, that in this very magazine the smuggled goods which had occasioned all the mischief had been put when landed, before they were carried to the Casa Politi, the merchant's country residence, and close to the magazine. It was situated close to the sea-shore; and in order to secure it, so as to prevent all escape from, and approaches to it, the three sides of its square were secured with strong palisades, so thickly set, that no one could escape through them; and only the front facing the sea was open. Sentinels were also stationed all round this palisading to secure the whole. This place was pitched upon for several reasons, but principally for its being insulated and central.

The concentration of these various pest establishments, considering the excessive badness of the roads and the inclement season of the year, was conducted, under the management of Mr. Tully, with as little inconvenience as could reasonably be

expected in an operation of the kind, and when once effected, was a great point gained.

On the Major-General's assuming the direction of the pest concerns, the plan of arrangement was as follows :—

First, to bring the contagion of plague into one spot; secondly, to expurgate and purify, and put in a state of security, all the villages nearest the principal cordon; thirdly, to insure the future safety of the district by the positive certainty that everything which could have remained under the ruins and rubbish of the villages originally burnt was carefully collected and entirely consumed; fourthly, to find out, and either purify or destroy what effects the inhabitants themselves had concealed.

Our opinion on this last point was, that whilst these hotbeds of plague—viz., the hoards of concealed effects—remained, no security could be reckoned upon. In this manner, we could proceed with confidence, and shortly drive the enemy into so narrow a field, as to be quite sure of holding him, as General Phillips emphatically expressed it, in a letter to me, “*not merely in check, but positively in chains.*”

In order the more effectually to prevent intercourse between the impested villages themselves, or between the impested and those which were healthy or *clean*—in short, to put an entire stop to people straggling from one part of the country to another—the whole impested district was divided into five compartments, or military divisions, (see the map,) and both the inhabitants and the military were restricted to boundaries which they were not to exceed; so that, should any plague break out within these, it might be limited to its own proper division; and when it was necessary to send in reports to me, a steady, careful soldier was dispatched on that duty.

This order did not, however, extend to the *condannati*, and the guards appointed to watch over them, who were necessarily employed, and whose duties extended all over the impested villages, in removing *positive* or *suspected* disease, wherever such

appeared, to the camp-district. This, however, was done with all due regard to the rules of quarantine; and as to the *condannati* themselves, who were considered only one degree removed from actual plague-patients, they were never permitted to stroll about, or to touch any one else in their way.

At the time I was appointed to the superintendence of the plague-district, on the 23rd of March, fourteen villages were either *positively impested* or *highly suspected*, from the plague having been in them some short time before. These were St. Demetri, Clomo, Marathea, Perivoli, Cuspades, Rumanades, Neochori Albanase, Argirades, Critica, Ringlades, Anaplades, Saint Theodoro, Milichia, and Potami.

It is true, that in the villages which were considered *highly suspected* the disease had subsided, and, in fact, it did not afterwards appear in the upper district. But *high suspicion* hung over them, until their expurgation was completed, and the seeds of the disease were thereby removed, which was a work of considerable time. And although it was a most happy circumstance that the plague did not afterwards appear in the villages of the upper district, yet, *à priori*, no such calculation could have been made at the time when the seeds of the disease were known to be everywhere scattered over them.

The following is the general statement of the disease on the 29th of March, 1816, when I entered on the charge of the impested district :

In No. 1, Camp of simply suspected . . .	217
— 2, Ditto . . .	142
— 3, Camp of highly suspected . . .	81
In the lazaretto, sick and recovering . . .	90
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Total impested and suspected . . .	530

Here it is to be observed that there are two classes of *simply suspected*, which it is necessary in this place to explain.

When General Phillips, a few days before my arrival, gave directions to concentrate all the pest-establishments into one place, and by one movement to relieve the villages of the sick

and suspected, those who had been long recovered from the disease, and those under suspicion, who had already performed a lengthened quarantine, and were to all appearance in perfect health when this general movement and concentration took place, were put by themselves for a time as *simply suspected*, to perform an additional quarantine of observation, in order to ascertain further that all were free from plague, and until time was afforded for the expurgation of their houses. Into this camp no new admissions were received.

No. 2 Camp also contained the class of *simple suspicion*, and consisted of those whose period of quarantine had not been so far advanced as in the former class—who, in short, were not so free from suspicion. Into this camp the daily admissions of *simply suspected* were received, until a final stop was put to them when I saw the mischief that was going on, by the continual fresh admissions into it, whereby the period of the quarantine of the first admitted was not only retarded, as I have already mentioned, but as the plague had shown itself in that camp, I was fearful lest it might spread among these unfortunate people. All that could be done in this case, when the disease actually showed itself, was to remove the sick to the lazaretto, and the others in the same tent, or those who I could learn had had intercourse with them, to the class of *highly suspected* in that camp, which was always immediately done, and prevent any further admissions into it, as every fresh admission in a certain degree vitiated its previous character, and rendered the people more liable to be impested. I therefore opened a fresh division of the same class, and received the admissions into it; and after a short time, I also closed it in like manner, opening another as often as necessary.

The same arrangement was carried on in the *highly suspected* class, whose character was equally liable to be vitiated by fresh admissions. It is true that the great body of plague is supposed to exist among this class; but it is very obvious that there is additional risk and danger from every new admission

into it; and consequently this danger is to be obviated by preventing admissions after a certain number of days.

The attention to this matter, so simple in itself, yet so highly important, is never to be neglected; for if the arrangement is not made quite clear, we shall remove the disease from where it is raging, to be sure, but in doing so, we shall carry it amongst persons whose state of health after a certain number of days may be considered as free from plague, and consequently put them in the way of danger, which by a little good management may be avoided. (See Preliminary Discourse.)

Although *positive* plague and *suspicion* were now transferred from the villages and towns to the camps, yet it became necessary still to watch over the inhabitants that remained in them, in order to lay hold of anything which might start up afterwards, for we had still a dread hanging over our heads from the *concealed effects*; and with this in view, the usual medical inspections were continued in the villages. Had plague appeared among them, which fortunately it did not in Upper Lefchimo, we should have been sadly thrown back. Our intentions in all these proceedings were fully explained to the people; and they were given to understand that exact compliance with the orders was expected, and would, if necessary, be enforced.

At first, the people were unwilling to submit to these daily inspections, which they thought a great hardship, and not necessary—at least, to the extent insisted on; but they were no judges of the matter, and of course their remonstrances on the subject were not to be attended to; and we almost invariably found, that where there was that unwillingness to submit to these inspections, there was some cause or other for suspicion, which it was necessary to probe to the bottom. Some were so very refractory in this respect, that they declared they would not submit to inspection; but on being informed that they would in such case be sent to the camps as suspected if they persisted in their obstinacy, they at length yielded. Indeed, it was necessary on some occasions to resort to this mode of

punishment for their irregular and improper conduct ; and after a time they were permitted to return to their homes.

In cases of ordinary indisposition, in which there was no reason to suspect plague, the people were of course allowed to remain in their houses, where the medical officers gave them the necessary advice, and supplied them with whatever medicines were proper for their complaints.

By these vigorous measures, the villages were entirely cleared of plague in the course of six weeks from the time they were in full force. I find, on reference to the daily returns, that the last case of positive plague from the villages was from Anaplades, in Lower Lefchimo, on the 6th of May.

The medical inspections, and the immediate separation of those *actually labouring under plague* and *those suspected* from each other and from the community, were, as might be expected, attended with the happiest results ; no time being thus allowed for clandestine intercourse to take place, which, with all possible precautions to prevent it, is still to be dreaded, unless these measures are promptly resorted to. However carefully sentries may be stationed, and houses secured with bolts and bars, yet the former may at times be negligent of their duty, or may be influenced to swerve from it by a bribe or from other motives, and the latter may by some means or other be forced or evaded. It is therefore essentially necessary that both the classes should be weeded out in the way I have mentioned as expeditiously as possible, and placed where they cannot, or at least ought not to, do any harm. We are then sure of them, and of the utter impossibility of their doing any mischief, at least, beyond the quarantine in which they are placed, which would never be the case were they not to be removed.

The service of expurgation and that of attending upon the sick being both in themselves exceedingly dangerous, it is very desirable in every way, not only that the sacrifice of human life should as much as possible be spared, but that the mortality should fall on those who are the most unworthy. With this

view, felons, or those who by their crimes have forfeited their lives to public justice, but have had them spared, are almost always chosen for this forlorn and unhappy service; and it has generally been agreed upon, as an inducement to these unfortunates, that if they behave well, and survive this service, they should not only have their liberty, but be rewarded for their good conduct.

It has been remarked, both in ancient and modern times, that those who have once passed through the disease are less liable to be attacked by it again; and this remark has been so well established, that some have gone still further, and imagined that having once recovered from plague, they are ever after invulnerable to its influence, and may therefore with impunity do what they please, either with regard to plague-patients or impested goods. This, however, is not found to be strictly correct; but, on the contrary, it is proved by experience that persons who have recovered from this calamity are not only liable to it again, but that some have been attacked by it twice; and if we are to credit accounts, sometimes oftener, even in the same season. Yet these cases are so extremely rare, that we do not hesitate to say, that one who *has once fortunately escaped with his life*, is not likely to be attacked a second time during the same plague season, and that if he is, it will most probably not affect his life. I have not, however, seen any such cases.

Hence the necessity of getting convalescents from plague for these dangerous duties; and many of them, on being well paid, will be found to volunteer their services. The doing so is an act of humanity to others, who must of necessity be employed if convalescents are not to be found, and consequently prevents the mortality, which it is always the chief object to avoid.

It unfortunately happens, however, that convalescents are not to be had at the beginning of plague, nor, indeed, till after some considerable time has elapsed. Yet even in this case, if I could find persons who have had the disease, even although it



might have been years before, I would employ them in preference to others who have never had it, from the same motives of humanity, conceiving the risk to be far less in the one case than in the other. But when none such can be found, there is then no other alternative in the first instance but that of employing such persons as we can get, whether they be felons or others. In the expurgation of Lefchimo, we were materially assisted by the convalescents, who volunteered their services for a dollar a day, and thereby expedited that important operation.

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## CHAPTER II.

On expurgation—Examination of the impested houses—Purification of the impested houses—Removal of the depôts of impested things to a general depôt—Valuation of the effects sent to this depôt—Burning of the depôt resolved on—And carried into execution.

THE service of expurgation is no doubt attended with danger; but if proper care is taken, that danger is greatly diminished. Thus, the people ought to wear oilskin gloves and tarred dresses; and instead of using their hands, on all occasions they should use iron hooks or long pincers in the removal of the things. They should also rub themselves with oil. But the truth is, that these careless and hardened vagabonds can seldom be prevailed upon to use any such things, and are apt to spurn all advice and to set at nought every precaution.

I may mention, by the way, that in the selection of those men, no one ought to be taken who is not perfectly healthy, and strong, and capable of enduring considerable personal fatigue. It will be well, also, where there is any choice, to have some regard to character, as far as we are able to do so.

The number of expurgators must of course depend on the extent of the calamity, and they should be divided into squads

or parties of eight or ten each, and placed under the charge of some person conversant in this duty, who is to be held responsible, not only for their good conduct, but also for their proper execution of the service; and when the whole service is finished, they must undergo the same scrupulous purification as if they had just quitted a plague-hospital.

The expurgation of Lefchimo was under the direction of two gentlemen who had been employed on that duty in the plague of Malta—Signori Mazzenti and Azopardi; and the satisfactory manner in which it was executed reflects the greatest credit on them.

It was at first intended that the expurgation should be carried on at both extremities of the district at one and the same time, and proceed on gradually towards the centre, which was the camp district, at a distance from all the villages, and close upon the sea. But the want of a sufficient number of expurgators for this purpose, and the various other duties which those employed had to perform, prevented that plan from being carried into effect. It was therefore determined to employ this whole force in the villages of the upper district first, and when these were cleared, and found to be so on inspection, they were to proceed with the same operation in the lower, where the same plan for rooting out the seeds of the malady by expurgation and the removal of the depôts, as in the upper, was carried into effect.

It was the duty of the above-mentioned gentlemen to report to me, as superintendent, the progress they made daily, and the occurrences which happened; and I gave them distinctly to understand that it was to them I looked for the entire destruction of the seeds of plague in every part of the district; and as often as they reported to me the villages which had been expurgated, it became my duty then to see that it really was so, by examining minutely every house, and, in short, every spot where plague had existed, to see that the places were well

white-washed, fumigated, and ventilated; that they were perfectly clean, and that no rags or things of a susceptible nature remained in them, or were lying concealed about them.

In these minute examinations of the impested houses and places, I directed these gentlemen to enter them before me, conceiving that had there been any danger either from imperfect expurgation or want of proper ventilation, they themselves would be, as, indeed, they ought to be, the first to suffer from it; and if they had hesitated to do so, I should have then suspected that all was not right, and consequently have had the matter cleared up to my perfect satisfaction before making my report to government. Previous to the framing of this my report, General Phillips had called my particular attention to the minute examination of outhouses, wells, staircases, cellars, and where there were any appearances of fresh-built walls, where the ground appeared to be newly dug up in gardens and other places, as in the plague of Malta, where he had so much experience in these matters, he had seen quantities of concealed articles disposed of in this way after the expurgation had been reported to be completed. Being fully satisfied that the expurgation was perfectly executed, (and here I may remark, that had I not been so, I dared not to have misled the government in a matter of such high importance, which might have been the cause of incalculable future mischief, and have brought disrepute on the system we were carrying on,) I sent in my report as to Upper Lefchimo on the 25th of April, preparatory to the return of the people in the camps belonging to the villages, and to the issue of the proclamation for allowing pratique to the people *within their respective villages only*, which was now about to be permitted, they having been all upwards of forty days free from plague, and no suspicion of it now remaining amongst them.

Whilst the work of expurgation was going on throughout the whole district, attention was also paid to the purification of the non-impested houses, or those where the plague had never

appeared, all of which were directed to be well white-washed and cleansed by the inhabitants themselves. This might not, perhaps, have been absolutely necessary, but it could do no harm, and was very much required, as a matter at least of cleanliness.

These non-impested houses were not inspected by me, although my report stated that they had been purified as directed. The magistrates of the villages were held responsible for this order having been complied with; and on their official reports to me, mine were framed for the government. The General, in his dispatch of the 30th of April, had explained to me, that unless the non-impested houses were purified, pratique could not be granted. But, in fact, every place was so well cleaned, white-washed, and ventilated, that there was not the least risk or danger, and I reported the same to head-quarters.

I myself made the inspection of the whole of the upper district with the exception of Critica; and as I had stationed Mr. Tully, surgeon to the forces, in the lower district, I desired him to make the same inspection there, and also that of Critica, when they were all reported to have been finished by the two chief expurgators.

My own duties at the time were so numerous, that it was impossible for me to go down often to examine the state of the expurgation; and in Lower Lefchimo, indeed, it was quite unnecessary for me to do so, as Mr. Tully was on the spot, and could look after the business. Besides, his daily reports to me were so satisfactory on that point, that I seldom had occasion to interfere. Special reports from the two chiefs of the expurgation I generally transmitted to head-quarters without comment. It was, however, incumbent on me to examine everything in Lower Lefchimo as I had already done in the Upper part of the district, before I could recommend free pratique to be proclaimed.

I have here spoken of the purification of the impested houses and the destroying of the seeds of the disease wherever they

existed all over the district, but it is not my intention to enter particularly into the operation of the expurgation of impested things, which can only be executed by those who are accustomed to it.

I have said above, that in the plague villages, depôts were formed, to which the impested goods were removed. These depôts were generally in some of the parish churches, as during the time all religious meetings were suspended; and it was of the very first importance that the goods should remain undisturbed and perfectly secure. They were therefore placed under the immediate charge of the military officers commanding in the villages, and of the chief magistrates, until their subsequent removal. Indeed, all the churches were fast locked up, and secured.

Whenever the purification of the villages was completed, and the scattered seeds of plague either collected in these depôts or burnt, (for it would have been quite absurd to have carried all the old worn-out rags into the depôt, when they could be so easily destroyed at the moment,) it became necessary to turn our attention to the removal of them; for it is very obvious that the villages could not be pronounced *clean*, or free from plague, whilst anything positively impested, or even doubtfully so, remained in them.

The principle we acted on here was that of driving positive plague, and the seeds of it, into one well-secured depôt.

With the view, therefore, of carrying this into effect, one general depôt was erected in the camp district near the pest hospital, to which all these intermediate depôts were removed. And here it is to be observed, that by this time the whole of the cases of disease, as far as known, were confined to the camp-district; for the villages had all been expurgated, and all the plague contagion removed from the houses. The people themselves were also still confined to their houses.\*

\* It is to be observed that I am here speaking of a period antecedent to the issue of the proclamation allowing *free pratique* among the villages themselves.

In order to diminish as much as possible the danger to which the expurgators were subjected in the removal of the things to this general depôt, as well as to prevent the impested goods from being scattered about upon the roads,—which would inevitably have been the case had they been carried in a loose and careless manner,—large wooden boxes were sent down, with handles on them for poles, to be carried like hospital-bearers. Into these tarred boxes the things which were considered to be of any value were thrown by means of iron prongs, and the boxes when filled being locked up, so that those who carried them had no access to their contents, were thus safely delivered at the depôt, for after purification. This, considering the excessive badness of the roads, and the heat of the weather, was a very fatiguing duty; but it was happily executed without any accident.

In the construction of this depôt, or purifying house, as it may be termed, which was built of wood, under the direction of Mr. Mazzenti, on the same principle as the one built at Malta for the like purpose, care was taken that it should be so arranged and subdivided, as that the effects belonging to one village should not be blended with those of another, and that they should be put into the part marked and set aside for them. When all this was finished it was well secured, and placed under the care of an officer and a party of the military; the former being made responsible for the conduct of his men, as well as for the safety of the whole, and entrusted with the keys. This was done on account of the danger to be apprehended lest it should have been broken into and robbed, and the plague thus spread abroad, more than from any consideration of the actual loss of the proprietors of the articles which might have been stolen.

Whatever might have been the real value of the effects when first carried to the village depôts, certainly on their removal thence, and being placed in the purifying house, by far the greater part was very little worth.

As Mr. Mazzenti had been employed in directing the removal

of these effects, and knew better than any one else their actual value, I directed him to make out the best estimate he could of the value of the effects belonging to each village; and also a calculation of the expenses which would have been incurred in their purification, should Government afterwards decide that this should take place.

Having transmitted Sig. Mazzenti's statement on the subject to head quarters, it was ultimately decided by the Government that it would not only be much better for the individuals themselves, but for all concerned in the plague duties, if the whole of the articles in the depôt were burned, and the seeds of plague thus completely destroyed at once, by which means all danger from their purification would be avoided, and consequently the period of free pratique accelerated: the future safety of the island was also thus made more secure. There was likewise another great advantage to be thereby gained, should no fresh mischief start up in the villages of the district, which, by this time, there was no reason to fear; and this was, that the whole business would be completed before the extreme heat set in, which we had serious reason to dread, in some respects as much as the plague itself. And, indeed, this apprehension was realized afterwards in the malignant fever which broke out among the troops, before everything was finally completed: and I have no doubt, had any unfortunate circumstances intervened to protract the general liberation, and had we been detained longer in the district, the autumnal fever would have fallen more heavily on the troops than it eventually did, and would have rendered it necessary, from the sickness, to relax the strictness of the system that was then carried on, the integrity of which it was so highly important to keep up; or, perhaps, have led to the abandonment of the system altogether, and consequently thrown everything into such a state of confusion as to break down every restriction, and in some degree render of no avail all that had been done.

The burning of the depôt of infected things (formerly consi-

dered an operation not free from danger) was intrusted to Sig. Mazzenti, who had performed the same duty in the plague of Malta, and was executed without any accident in the following manner: Several trenches were dug, over which were laid rafters of wood and brushwood. The contaminated things of every description, to the very minutest rag, which were of a susceptible character, were dragged out from the different apartments with iron hooks, by the expurgators, and thrown in heaps on these rafters; and fires being kindled at each end of the trenches, in a few hours the whole was reduced to ashes.\*

In the depôt were a considerable quantity of loose papers, and books belonging to the churches. The former were purified singly; and such books of registry as had been saved from the general wreck were afterwards cut out leaf by leaf, and placed on files after purification, by Sig. Aropardi, one of the chiefs of expurgation. It would have been useless to have attempted to purify the other books (which might be bought) in this manner, as not worth the trouble, time, and expense; they were therefore consumed. A committee was afterwards appointed to examine the loose papers, when those of consequence were retained, and the others destroyed.

I have already said that the inhabitants of Lefchimo were a refractory and turbulent race of persons, as the Russians found when they were in possession of the Island; and as we ourselves experienced during the time of the plague. They were for a long time very desirous of knowing what I meant to do with the depôt of infected things; and seemed to have a presentiment that as I had now got them in my possession, I meant to burn them. I studiously avoided giving them any decisive answer on the subject until I had received orders from the Government; for as well in the camps as in the villages, were the people clamorous and importunate to know my intentions; so much so, that some of the villages were reported to

\* Thus it was proved that impested things could not only be removed, but destroyed with impunity.



me by the officers in charge there, to be in a state of considerable insubordination, and some trouble was apprehended.

I therefore felt it my duty to write to head quarters for instructions in the matter, and next day received a reply marked *confidential*, putting me on my guard against saying anything decisive on the subject for the present, but that I should soon receive my orders; that it was the intention to burn everything, but that I must keep this a profound secret, until everything was ready, for fear lest this refractory people should give us trouble. A letter was also written by the Adjutant-General to the officers in command to the same effect, desiring them to have their men ready in case of tumult amongst them. I soon afterwards received my instructions to burn the depôt, and desired Sig. Mazzenti to carry it into effect that same night.

When the inhabitants saw the cloud of smoke the next morning, they were in a violent rage, threatening every one concerned with vengeance. I went down shortly afterwards to the camps to see the people there, and subsequently visited the villages, and found them in a state of considerable excitement; but on my telling them that by having burned the infected things, the period of their misery would be shortened; that it was necessary to prevent a return of the dreadful calamity; that the great part of their effects were of little value, and cotton, and not worth the trouble and expense of purification, which they themselves would be obliged to pay for; and finally pledging myself on the part of the Government that they should receive indemnification for their loss; I at length succeeded in pacifying them.

Conceiving there was no necessity for destroying the building itself, (which was constructed entirely of wood,) together with the impested articles, I told Mr. Mazzenti that I thought he might be able to burn the effects, and yet preserve all the wooden work, which could be afterwards applied to other purposes, and this without any additional risk to the persons employed, if only proper care was taken. He entirely concurred with me in this opinion, and the whole of the wood was thus preserved. It was thrown into the sea for a time, and afterwards made use of.

The delicate operation of burning the things in this general depôt was accomplished without any accident; and the same operation in a more partial degree was executed frequently in the villages with equal success, when no other precautions were used but those of avoiding contact with the impested things, and of keeping to the windward while these were burning, which, indeed, was indispensable, in order to avoid being suffocated with the immense cloud of smoke issuing from them. I am therefore bound to consider as merely fictitious those stories we have read of contagion spreading in the air, and causing the sudden death of those employed in burning the impested goods. That such persons may have suffered, I readily admit, but it was certainly from handling the impested articles, and not from any contagious matter flying off from the air, and impesting the people. Indeed, I am warranted in affirming, from the frequency of our burning impested things in Lefchimo, that this may always be done with the utmost safety, if the people do but avoid all contact. Were I allowed to hazard an hypothesis on the subject, I would say that the contagion is destroyed, or rendered quite inert by the heat, and cannot thus contaminate.

The impested places having therefore been all expurgated, the depôts in the villages removed, and the seeds of plague destroyed by burning the general depôt, two things still remained to be done, before the villages or the country could be pronounced quite clean, or the future security of the public health be considered fully established. The first was the thorough expurgation of the churches, several of which had been used as depôts; and the second, the securing of the graves, where those who had died of plague were buried.

## CHAPTER III.

Expurgation of the Churches—Securing the plague graves—Concealed effects—Rewards granted for their discovery—Duties of the Medical Officer in charge of the camps, or places of segregation—The length of time plague contagion may remain in the system without showing itself.

THE calamity in the first instance had been so widely propagated by means of the clergy, that both they and the churches became objects of the most serious consideration. The priests, like the rest of the inhabitants, had been confined to their houses, and the churches shut up for a considerable time, no congregations of the people having been allowed on any pretext whatever.

As soon, therefore, as the impested effects were removed from the churches, we turned our attention to the expurgation of the whole of them. From their immense number, scattered as they were all over the district, this was no easy task to perform; for I observe, on referring to the returns of expurgation, that they amounted to no fewer than 89; all of which it was thought necessary to purify. It is to be observed, however, that for the most part they were small miserable places, little better than huts.

In the first ebullition of the malady, and before it was pronounced to be plague, the people were buried, not only in the usual burying-places, but also in the churches, and in the very houses where they died; in the neighbourhood of the villages, and in the fields. The utter impossibility, therefore, of ascertaining the real state of these graves, and whether or not the dead bodies had been deposited at a proper depth, added to the fact that many of these bodies had been buried in their impested clothes, caused among us for some time a considerable degree of uneasiness, lest by any accident these graves should be opened by the people, as some of the buried persons were sup-

posed to have valuable things about them, and thus cause the disease to start up afresh. This uneasiness was increased from the fear that the wild dogs,\* that abounded in the district, would tear open these graves, and, by some means or other, reproduce the disease. The securing, therefore, of these graves, so as to prevent the possibility of such accidents, was an object of immediate necessity; and, waving all speculations on this head, I give it as my opinion that it is not safe to touch or interfere with a pest body, whether wrapped up in clothes or not. Possibly after a certain time it may cease to be noxious, but that is not known; and I hold it to be an act of temerity to put the matter to the test, the more particularly as it can never be necessary to do so.

In order to have Messrs. Mazzenti and Azopardi's opinion upon the subject, I consulted them on the propriety of removing these bodies, when they both gave it as their most decided opinion that such a step could not be taken; that it was not to be attempted, and that they would have nothing to do with any operation of the kind. These were, indeed, exactly my own sentiments.

It is very remarkable that in almost all the civilized world the same dread of touching the cemeteries of those who have died of the plague has prevailed, from the evident apprehension of reproducing this most terrible calamity. Even among the Cossacks in Russia this dread was so great, that Mr. Clarke was prevented from opening a tumulus, for fear lest those who were therein deposited might have died of plague, and might, if interfered with, communicate the disease to them. (See Clarke's Travels in Russia, vol. i. page 269.)

The plague graves were secured by the expurgators, under

\* I remember that in Egypt, during the time I was employed in the plague there, such a circumstance as this actually happened; for several of the bodies buried the evening before were dug up by the jackals or wild dogs during the night, and their mangled limbs were found scattered among the tents on the following morning.

the directions of the two chiefs, in the following manner, which was, indeed, all that could be done at the time. As much of the earth was removed from them as was considered prudent; a quantity of quick-lime was then spread over the graves, which were afterwards filled up with earth, and pressed down; over this loose stones were placed, and a small wooden cross was erected, to denote a plague grave. It was the intention afterwards to erect proper grave-stones, with an inscription on each in modern Greek and in Italian, stating it to be a plague grave, and not to be meddled with. Whether this was ever carried into effect I know not; but it was not done during my stay in the island.

In the churches where the pest bodies were interred, and which, I think, amounted to six, I recommended that before they were used for divine worship, proper grave-stones should be sent down for them, which was complied with before I left the district.

Another most unpleasant circumstance tended to keep us in a constant state of alarm for some time; it was our knowledge of the fact that impested articles were still concealed in various parts of the district.

Although every possible precaution was taken to prevent persons from having access to those nests of plague contagion, it was still to be feared that the cunning Greeks would find some means or other of evading our precautions, and, in going to look after their articles, might bring back with them the seeds of the disease. Indeed, I have reason to believe that the disease started more than once in lower Lefchimo from this very cause: nor was it only the immediate breaking out of the disease whenever these hoards were interfered with that we had to dread, but also its re-appearance afterwards, at an unknown period, when the people, who were now confined to their houses, would be free from all restraint; or when those who were in the camps would have returned to their homes, after their liberation, as it was naturally to be expected that, as soon

as they were able, they would go to look after and bring home the things they had concealed.

The measures now in force were such as enabled us immediately to suppress the disease, should it re-appear; but it was impossible for these always to remain in vigour, or for us to be always watching the plague in this manner; and the very idea of a want of perfect security, after all that had been done, and the bare possibility of the disorder breaking out again (owing to the causes mentioned) at some future period, when all restrictions would be removed, was far from pleasant.

I have already, in the Introduction, touched on this matter, but I find it still necessary to enlarge a little upon it here.

A reward having been offered by Government for the discovery of concealed articles, several persons then in the camps came forward to tell where they had hidden various things, and wished for permission, under an escort, to go and show the places of concealment. This, however, could not be done at the time, but was done afterwards; for had they then gone to the villages from the camps to look after their things, before the time they were proved to be free from plague, some communication might have taken place betwixt them and their friends, by which means the villages (which, for a considerable time, had been free from plague, and were also expurgated) might thus have become again impested from the camps, where the malady was still breaking out occasionally.

All that could be done in the meantime, therefore, was to get from the people the most accurate description they could give of the places where the articles were hid; and, with this information, a party of expurgators were sent to the different spots to search for them. Sometimes the expurgators had no difficulty in finding out the things from the descriptions given of them. At other times, the articles were not discovered till long afterwards. On their discovery, however, a compensation was immediately granted for them, and whatever was of a susceptible nature among them was burnt on the spot. On the

breaking up of the camps, when the people were suffered to discover their remaining hoards, they were not themselves allowed to touch them; they merely pointed them out to the expurgators, who did with them as they were directed.

No doubt but the people in the camps might have been permitted, under an escort, to go to the villages to point out the places where they had concealed the things; but it is to be remembered that plague was still lurking in the camps, and starting up occasionally, whilst the villages were free from it, and had been expurgated. Moreover, we had no troops to spare for these duties. It would therefore have been running too great a risk to do this, which it was best to avoid; for there was no saying what friends and relations, who had been long separated from one another, and who perhaps were ignorant of each other's fate, might have done in a moment of joyful transport at meeting; and it would have been dreadful and shocking to humanity to have put the punishment awarded for a breach of the laws of health in force against these poor people. It was therefore much better to keep the classes distinctly separate, as they were, for a time.

Many of the things thus found out were perfectly rotten and useless, from the length of time they had remained underground; but even in this case some compensation was given, as an inducement to the people to come forward and confess to everything they had secreted: and all articles of gold or silver that were discovered, were returned to them at the time, on their being purified, in order to convince them that we had no wish to keep back from them any part of their property.

The expurgators frequently discovered by chance, quantities of concealed effects among the brushwood, and in various places, which they forthwith, and without any ceremony, destroyed on the spot. In these cases, no indemnification was made to the owners; such only being deemed worthy of compensation who had made known their concealments. It was proper to make this distinction, in order to prevent the generosity of Government

from being misapplied, and to induce the persons concerned to reveal these nests of plague which were so much to be dreaded.

Among those who came forward to confess to concealed effects, was a poor woman, then a patient in the hospital. She stated that when first taken ill, and before she was sent to the hospital, she had hidden some money wrapped up in a towel, in a certain part of her house, which she described. She was, of course, commended for the discovery, and it was promised that the money when found should be restored to her. Search was therefore made for it, but it could nowhere be found, and it was thought that she might have been confused at the time, and incapable of knowing what she did. She, however, persisted in her story, and described with considerable minuteness the precise spot where she had placed it. Mr. Gemmilaro, to whom she had made this confession, took a drawing of the house and premises from her description of them, and marked the spot where she said the money was laid up. It was then found wrapped up in the way she had mentioned.

I was uneasy until this discovery was made, not so much on account of the money itself, as of the towel it was wrapped up in, which there could be little doubt was impested. The towel was taken hold of with iron pincers, and burned, and the money, being purified in vinegar and water, was restored to its lawful owner.

I have been supposing all along that the people in quarantine are encamped, and not in houses. But whether this be the case or not, every regulation concerning them should be conducted on the same principle.

The medical officer in charge of the camps must keep a register of all the individuals sent to quarantine and observation, containing their names, ages, the places from which they come, and the particular reasons for which they are sent to the camps, whether *highly suspected* or on *simple suspicion*. He must also keep an exact account of all transfers from the class of *simply suspected* to that of *high suspicion*, and from either of these classes to the



hospital, or pest house, and also of the cases of suspicion which turn out afterwards to be plague. The dates, too, are to be correctly recorded; for it is only by them that we are enabled to make any calculation of the state of health of these quarantines. It is of course to be supposed that a regular return of all the admissions into, and deaths which happen in the hospital, and, as far as can be done, a detailed account of the cases themselves, be kept by the medical gentleman in charge of that special duty.

Another very important duty of the medical officer in charge of the camps is, to take care that whatever effects of a susceptible nature the people may bring along with them be carefully purified, so that if plague contagion exists in any of them it may be destroyed, and not break out afterwards when they come to be handled or worn by their owners after their liberation from quarantine restraint. If there is any plague contagion in articles, it is proper to bring it out of them while the people are performing their quarantine, for we thus meet the enemy on our own ground.

I ought not to omit mentioning a circumstance which occurred in one of the camps in Lefchimo, as bearing in some degree upon this point.

Among those sent to the camp as highly suspected was an old woman from Potami, who, among other things which she had brought with her, had some cotton, which she intended to spin during her quarantine. Somehow or other she had contrived to secrete this cotton when her other things were washed in the sea, according to the standing orders of the camp, thinking, I imagine, that it would be injured by the salt water.

For eight days after her admission into the camp, she continued to all appearance in perfect health. On the ninth day she began to work at her cotton. Soon after she grew sick, and died of the plague after two days' illness. I own it is possible that she might have had the plague in her system before her coming to the camp, from her living with a family at the time they were

attacked by it; and her being so, was the reason for sending her to the camp, as *highly suspected*. But the impression on my mind is, that the fomes of the plague was in the cotton, and that on her beginning to work it, she fell sick.

I think it would be an improvement in the internal management of camps, or of establishments on the same principle, if some more speedy method were adopted of destroying the contagion, than the slow one of airing and handling, or even of immersing effects in cold water; and I am of opinion that this might be effectually done by steeping the things in hot water for a short time; and if fresh clothes could be given to the persons admitted, particularly to those under *high suspicion*, as soon as they are received, it would be desirable to put all their effects, including the clothes they had on, into caldrons or tubs of hot water, either with or without soap. This, I conceive, would at once entirely destroy whatever contagion was in them, and with it all the dread of plague afterwards; so that if the seeds of plague happened not to have been already in the system or constitution of the persons, they could not get the disease either from their body clothes, or from the articles they had brought along with them. Moreover, it would diminish the usual period of quarantine, which on every account is so desirable.

It is, however, proper for me to remark, that in the plague of Corfu, the purification of the effects of the persons in the camps was not done in this manner, from our want of the means of doing so. They were only repeatedly put into cold water, and dried in the air; but the more I reflect on the matter, the more I am convinced that, for several reasons, it would have been much better to have put the things into hot water; for if this had been done, the poor woman from Potami, mentioned above, might have escaped.

Before these fresh clothes are put on, and indeed before they are touched by those for whom they are intended, it would be well if their bodies were washed with soap and water. Their own clothes could soon be dried, and might then be worn without

any danger. But the fresh clothes with which in the meantime they are supplied, ought not, after their wearing them, to be given to others, until they are purified in the manner stated, lest they should have become impested by those who had previously worn them, supposing such to have been attacked by the plague before a period of fifteen or twenty days had elapsed from that of their admission.

I doubt whether merely once putting the things into cold water, and then drying them, would effectually destroy plague contagion, but I have no doubt that the doing so three or four times would completely destroy it. Still I am of opinion that the safest mode will be the immersion in very hot water.

On consulting Sig. Mazzenti on this subject, he gave it as his opinion that one immersion in cold water was not safe, and that he would not trust to it. He agreed with me in thinking that hot water, used in the way I then mentioned, is the most effectual mode of purifying. Our plague tents, that were considered worth the trouble, were purified by repeatedly immersing them in the sea, and then freely exposing them to the weather for a considerable length of time: they were then put by for use.

It will unavoidably happen that many of the things thus purified will be injured by the process; but when the great object, that of immediately destroying any plague contagion that they may contain, is taken into consideration, and of thereby getting rid of all risk and danger from that moment, there are few, I imagine, who would put the loss in competition with the advantage arising from it, or who would hesitate for one instant which to adopt. But, indeed, this matter ought not at all times to be left to the people's own decision, as it is not a case in which the proprietors alone are concerned, but one in which the public health is deeply interested.

It may be alleged, however, that of the multitudes whom it may be necessary to send to quarantine or observation from time to time, not many are found to have the plague eventually, and that the danger of their effects being impested is not so

much to be dreaded as is supposed; that it is not, therefore, necessary to injure these by purification. To this I reply, that had we any means of positively ascertaining what things are really impregnated with the plague miasma and what not, I would decide at once on the things to be destroyed or to be purified, while the others remained untouched. But as we have no way of knowing that fact, we are not to trust to chance in this matter when we have an effectual remedy in our own hands. It is better for the owners themselves, not only that their effects should be injured, but even that they be utterly destroyed, than that they themselves should run any risk, or be subjected to such dreadful anxiety respecting their future state of health as that which they must endure until a considerable period of time elapse, and which is inevitable, should they expose themselves to become impested by airing and purifying their own clothes and property in the usual slow way, rather than trust them to be purified by the expurgators.

The plan I have here proposed may by some be considered as chimerical, and difficult to be accomplished, and I know that it must be attended with considerable trouble. It is not my business, however, to consider these difficulties in this place, or the expenses attendant on such a work; for the management of plague is not only accompanied with danger and difficulties, but also with incalculable trouble, and very serious expenses at all times. It is my duty here only to consider and detail the means of destroying the contagion of plague, and to secure the public health, without entering on the consideration of other matters.

It will be observed, that I here suppose the persons under suspicion to be perfectly free from plague in their constitution at the time, and the possibility of their being impested afterwards from their clothes, or from purifying their other effects.

I have, in another part of this work, mentioned that the period of time during which the seeds of plague may remain in the system without showing themselves does not usually exceed

twelve or fifteen days ; and I remember General Phillips telling me, that in the plague of Malta, where he had good opportunities of knowing this matter, he never knew but one case in which the plague in the constitution did not show itself till the thirteenth day, and that this case was as well ascertained as such things can be, although it was still possible that in this instance the disease was occasioned by contact of a later date than was supposed at the time. He added, that it is rather rare after the tenth day. Seventeen days, however, is, I believe, a period beyond which the disease has never been traced to break out in the person of an individual who has been rigidly separated from every one, and as rigidly made to perform the airing and handling of his clothes.

But lest the disease should remain in the system beyond seventeen days, either from peculiarity of habit or any other circumstance, I would increase the period to twenty days, in order to be as sure on this point as in a case of the kind we can be. For my belief is, that if the plague is in the constitution, it will show itself before that time. The prospect of the people would then, after this probationary trial, become more cheerful, as this horrible dread of plague hanging over them would then be quite removed. They must naturally feel very anxious till that period is over, but afterwards that anxiety will cease, and they may look forward with joyful anticipation to their liberation from restraint, which in no case should exceed the term of forty days—nay, which with perfect safety might be considerably reduced, as I have shown. Yet on this point I would not insist, as I am aware of the extreme delicacy of interfering with the established laws of quarantine.

The old system, therefore, of forty days of *foul quarantine* and forty of *clean* is absurd, cruel, and unnecessary for the protection of the public health for persons coming from plague countries or places ; and I consider that they may be liberated in fifteen days at the furthest from the time they have undergone the complete spoglio, if at the end of that time they are in health,

(always premising that they have carefully purified their effects whilst in quarantine,) particularly if they have been healthy during the voyage and at the time, which is to be declared when they are examined by the inspector of health.

Whilst on this subject, I may mention, that in Corfu I could never learn any well-authenticated case of the plague occurring after nine days from the last suspected contact, or after persons undergoing the complete spoglio; and we invariably found that the trying period was on or before the ninth day. Indeed, after that day, my mind was generally easy on the subject.

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#### CHAPTER IV.

On camps—The provisions to be placed at a particular spot—Difficulty of sometimes ascertaining what property ought to be expurgated and what should not be interfered with—Prevailing opinion in Lefchimo concerning property destroyed there.

I GENERALLY placed the divisional camps at the distance of fifty or sixty yards from each other; and by way of greater security, I caused a broad and deep ditch to be dug, to impede, if not entirely to prevent, intercourse between them; and I found the country people who were confined in these camps seldom unwilling to be so employed. The operation seemed but an amusement to them, who had nothing else to do, and it was no doubt conducive to their health. These camps, as I observed, were well guarded night and day to prevent communication, and regularly shut up against all fresh admissions after eight or ten days.

It may be asked how, as none were allowed to enter these camps, the people were to be provisioned, and the inspections to be made? In answer, I have to say, that all their provisions were placed at a particular spot outside these camps, and each person or party came regularly thither to fetch away their allowance. The distribution was made by one of the commis-

sariat department, assisted by the camp-guardians, who were confidential men employed as police-officers.

With regard to the medical examinations of these camps, this duty was performed by Assistant-Surgeon Gemmellaro, of De Rolle's regiment. He was almost constantly walking through the camp-lines. At his inspections, the people were all directed to retire into their respective tents, then called over and examined, one by one, those of one tent after those of another, he standing near the door of the tent. All this was done without his having any contact with the people, and without the least risk, as he took particular care that the lines were always kept clean and clear of impested things.

In this laborious and incessant duty I had every reason to be highly satisfied with his diligence and zeal during the whole time he was performing this important charge, which was almost from the formation of the camps till they were finally broken up. He merits my best thanks.

In the first instance, on the breaking out of the plague, several families, particularly in Lower Lefchimo, locked up their houses and magazines, and fled to different parts of the country. These places were reported by the inhabitants who remained in the villages to have continued locked up ever since their owners had deserted them, a period of several months.

While the expurgation was going on, the question to be decided was, whether these places were to be delivered over to the expurgators or not; for it was quite evident that the villages could not be considered or reported free from plague as long as there was any uncertainty with regard to them. No satisfactory account of the health of their owners could at the time be obtained; nor, indeed, was it even known where they were in some instances, or whether the plague had ever been in their houses and magazines or not; whereas if the expurgators once entered them, they must, as a matter of course, be considered as impested, even though they had not been so at first,

and the effects they contained seriously injured, if not in many instances entirely destroyed.

As property to a considerable amount, (the disposing of which was an affair of the government,) as well as the security of the public health, was involved in the question, I did not venture of myself to decide on the case, but reported it to the Major-General, and requested his instructions; upon which I received the following directions:—

To ascertain the names of the persons to whom the houses and magazines belonged, and call upon them forthwith to state the precise period at which these places were shut up; to make every inquiry into their previous and present state of health, and into that of their connexions. Having done so, and ascertained that all persons concerned were in perfect health, and, as far as was known, had never had the plague among them, and that no suspicion of plague hung over them, I was desired (after the other impested houses in the villages were purified,) to call on these proprietors, directing them to open their houses and magazines and reside in them as formerly, washing, airing, and handling all the susceptible effects they contained. These places, and those residing in them, were to be subjected to a short quarantine of fifteen days; the houses to be well ventilated and whitewashed under the inspection of the military officer commanding, and the chief magistrates of the village, whilst a medical officer was directed to inspect the state of health of the inmates daily, to ascertain whether any symptoms of plague appeared among them. These injunctions were strictly complied with; and at the end of the fifteen days, no symptoms of plague having made their appearance, their restraint was removed, and free intercourse with their neighbours was granted them. By these means, a considerable deal of property was saved, which, under other management, would have been destroyed, whilst at the same time the public health was carefully protected.



Had the proprietors themselves not complied with this arrangement, or had they not found others to do so for them, for hire, the government would have taken the matter into its own hands; it would have procured proper persons to put in these places to prove them, and the whole expense of this would have fallen on the proprietors.

It is necessary here for me to digress a little on the subject of property destroyed in the time of plague. The people of Lefchimo entertained an idea that government was to make good to them all losses arising from plague. How such an opinion ever came to be formed I could not learn, but it seemed to be a prevalent one all over the district. The people imagined that, whenever the plague was over, they had only to send in to government a statement of their losses, and receive from it the amount. Placed as I was, in the superintendence of the plague district, and the *medium* of correspondence with the government, on perceiving that they did not care what property might be destroyed, from the erroneous idea that they would be afterwards indemnified for it, I immediately gave them distinctly to understand that no such compensation as the one they expected was ever in contemplation, and that neither in law nor in justice had they any right or claim to such.

It may be the policy of a government at times, and as an act of generosity on its part, to grant some remuneration, or rather compensation, to individuals, for what things it may be necessary to destroy, in order to protect the public health; but it can never be expected that this is to be done on an extended or general scale, so as to embrace all the losses which the public may suffer. The plague is a scourge, like famine, or any other general calamity, and those attacked by it must necessarily suffer from it. Their property, in as far as is consistent with the safety of the community at large, is to be saved, by making the proper separation between what is really *impsted* and what is only *suspected*; that the one may be destroyed, or purified, if found practicable, and the other care-

fully preserved from injury. The expenses attending the management of plague, which are always very serious, fall directly on the government. But individuals must expect to bear their share in the general calamity.

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## CHAPTER V.

Removal of the people in the camps to their villages—Great difficulty of provisioning the people—Sir Thomas Maitland's kind considerations for them—Necessity of bringing matters to a speedy termination on account of the expected remittent fever—The people's houses to be repaired before they are sent home—Some of the persons to be removed, very weak from ordinary complaints—Minute examination of all the people previous to their removal—Necessity of employing civic guards to assist the troops—Reasons for subjecting the persons returned from the camps to further quarantine—Great joy of the people on being liberated—Further means adopted to discover *concealed* effects—Highly improper conduct on the part of the priests—The people who were hitherto shut up in their villages, liberated before those belonging to them were sent back from the camps—Period of quarantine in the class of *highly suspected* shortened from forty to twenty-five days, that of the class of *simply suspected* from forty to seventeen days—On cases of supposed plague—The difficulty of managing individual convalescents from plague—On the pestilential bubo—A place of security to be prepared for the performance of the quarantine of convalescents from plague—Examination of these previous to their being encamped—Are to be well washed and receive fresh clothes—Those of Lefchimo directed to give up any effects they may have concealed—Amulets worn by several of them, to which they attributed their recovery.

WHEN once satisfied, as far as we could well be, that no plague remained in the upper district, whilst in the lower one the expurgation was going on with the whole of our force, we had next to turn our attention to the removal of the people now in camps to their villages, as their period of quarantine had expired. It was necessary, for many reasons, to lose no time in carrying this movement into effect; for although the people had borne all the restrictions of quarantine with as much temper as could well have been expected, yet all restraint, under any circum-

stances, must be irksome and unpleasant. They were now become exceedingly anxious and impatient for their liberation, looking forward with pleasing anticipation to the near approaching period of their return to their friends, and of the enjoyment of social intercourse with their relatives and acquaintances.

Amongst other reasons for accelerating their return, there was one of a most cogent nature, which it is proper to mention here; and that was, the difficulty of procuring provisions for so large a population, as not only the camps were supplied from our stores with bread, meat, pulse, salt-fish, wine, oil, and other things, but nearly the whole of the inhabitants of the district, amounting even at this time to between 7000 and 8000 souls.

The district of Lefchimo had at all times been dependent for several months in the year on the supplies it received from the city; and now that it had been completely cut off from it for many months, and when no communication was allowed with it, except under the laws of health, nor even between the several villages within it, the people had no opportunity of sending anywhere to purchase, or of bartering for such necessary provisions as they wanted. Besides, their own little stock of corn and other things was by this time almost exhausted. Indeed, had any unfortunate circumstances occurred to protract the period of their liberation, I apprehend there would have been serious difficulty in affording them the necessary supplies. As it was, if it had not been for the humane attentions and paternal care of his Excellency the Lord High Commissioner, in even anticipating the wants of this suffering people at a very great expense, they would have had the misery of famine added to the calamity of plague. I doubt whether the inhabitants of Corfu appreciated, as fully as they ought to have done, the favours conferred upon them by his fostering hand at the period of their distress; but I am quite sure that, if it had not been for his exertions in their behalf, as the head of the British government, they would have suffered more seriously than they

did, not only from the plague itself, but also from its dismal consequences.

The time was now approaching, too, when the people wished to cultivate their vines, and prepare their fields for the ensuing crops. Permission, however, could not yet be granted them to work in their fields, without breaking down the barriers of quarantine; that is, without allowing intermixture among the people of the different villages, which it was not yet proper to do. For, if the system, which was being carried on with such marked advantages, had been interfered with, we could not have calculated on the consequences; and if plague had unfortunately broken out in any one place, there would have been no telling where it would end, had the people obtained the permission they sought for. As matters now stood, if it had broken out, it would have been confined to the inhabitants of that village alone where it appeared, and would not have extended to the others, so that it would have been an easy matter to have stopped it there, though a most serious one to have had to begin the whole work over again. I was daily importuned to consent to this solicited permission, but I could not take it upon me to do so, as it was a thing to be done only by a proclamation of the government; and which I knew would take place as soon as the public health allowed it. The people in the villages might no doubt have been permitted to cultivate their own fields, but I could not have been certain, in this case, that they would not have strayed to the other villages; nor could I have spared the military from the other important services on which they were employed, merely to attend and look after such working parties, in order to prevent their straggling. The thing was impossible. It was as much my duty also, had there even been a sufficient number of troops for this purpose, to take care that their health should not suffer from extraordinary fatigue and exposure to the heat, as it was to attend to that of the inhabitants of Lefchimo. In short, the people being at this time confined to their villages, the restraints of quarantine were to

be rigidly adhered to, without regard to favour or affection; and in pursuance of the system which was being carried on, no deviation whatever from quarantine law could be allowed, until by a little time we could remove all restraint with safety.

Another important reason for sending the people home, and, indeed, for straining every nerve to bring matters to a speedy termination, was the approach of the hot season, as already noticed, from which we had so much to dread. This I foresaw, and reported to the government at my first inspection of the district; and most fortunate it was for every one concerned that we were all liberated before the autumnal fever had done much mischief.

Preparatory to the liberation of the camps, another circumstance required particular attention, which was the state of the houses they had left, many of which were entirely destroyed by the fire in the first instance, when the system of burning them had been resorted to; and others were so much dilapidated, as to be no longer habitable, particularly in Marathea, Clomo, and Rummanades. The government was anxious to render the people comfortable, and, as far as possible, they were supplied with the means of making themselves so, and of rendering their houses secure for the present, which was all that could be done.

On one occasion, I remember having sent the carpenters employed about the camps to repair some of these houses, but I afterwards regretted having done so, as the General told me soon after, that in the plague of Malta, a carpenter employed in the same kind of duties cost the loss of several lives, and of forty days hard labour, to get the better of the mischief caused by his carrying the contagion to a place which had been cleared of it. I had taken, however, the precaution to send a guard with those carpenters, in order to prevent all intercourse betwixt them and the people. But still my sending persons from the camp district to a clear village was not quite correct, although no bad consequences followed.

The first camp liberated was No. 1, *simply suspected*, whose

period of quarantine had expired, whose health was free from all contagion of plague, and whose effects had been fully purified.

It happened in some of the camp liberations, that several of the persons about to be sent home were so weak and indisposed from ordinary complaints, that they were unable to walk to their villages; nor could the roads admit of any carriages, if I had had such at my disposal for their accommodation. Their neighbours, who were returning home with them, would not assist in carrying them, as they were sufficiently loaded with their own effects, which having recommended the people to take along with them when they were ordered to camp, I was consequently bound to let them carry back, and to afford them every facility for doing so, consistent with the rules of quarantine; nor could I order the people from the villages to come and assist them to carry home their effects.

In these cases, which, however, were fortunately but few, it was thought best to detain them for a short time where they were, till they should get better, or die; for had they gone home to their villages, and died before the expiration of their quarantines of observation there of fifteen days, the circumstance might have caused an unpleasant sensation, and led to an opinion that they had actually died of plague, and consequently would have retarded the general pratique; and according to the laws of quarantine, it would have been necessary to bury them as plague bodies by the *becca mortis*. Everything possible in the way of rendering them comfortable, and of giving them medical attendance, was done; and, in a few days afterwards, they were able to return. One poor woman, however, who had been long ill, died in the camp. Indeed, no attention could have saved her; and perhaps it was better on her own as well as the public account that she was not removed.

Previous to the people quitting the camps, it became necessary for myself to examine minutely every individual, to ascertain their perfect state of health; after which, avoiding all contact or communication with any of the other camps, each party was marched off to their respective villages under an officer's guard;

and lodged within their own houses, where they performed a strict quarantine of observation of fifteen days, under the orders of the military commandants of the villages, during which time they were examined every morning by a medical officer, who made a regular report to me of all occurrences. Sometimes the military commandants were present at these inspections, to give an appearance of more authority. All these inspections may by some be supposed to have been unnecessary; but it is known that persons returned from quarantine are more apt to conceal any indisposition than they were whilst actually under severe restraints, and more unwilling to submit to examination.

These inspections were occasionally made by myself afterwards in the villages, as I was extremely anxious at this trying period to see that all was right, and if any case of plague should unfortunately occur, to take the proper steps instantly, and again shut up for some time the village in which it should appear.

As the regular troops were not numerous enough to guard the people who had returned to their houses, in addition to their other duties, the primates and deputies of the villages were called upon to furnish a sufficient number of steady well-behaved men, to assist in this duty for the fifteen days of quarantine, which the people just returned had to perform. These were placed under the orders of the military and medical officers, and were not only to prevent any intercourse betwixt the newly returned and the rest of the inhabitants, who had never been removed from them, but also to have none with themselves, as all such would be a breach of the quarantine law, and would be punished accordingly. And as an inducement to these civic guards to behave with fidelity, they were allowed daily by the government the sum of twenty paras, about sevenpence sterling, while thus employed.

The purport of subjecting the people returned to their homes to observation for fifteen days was to put the expurgation of their houses to decisive proof, and to meet the enemy,

if he still existed. I had not the least doubt, when I made my reports of the state of the expurgation, that all was as perfect as in any case of the kind it could be. But it was still possible that something impested might have escaped the expurgators and myself; and if anything of the kind had remained undiscovered in these houses, or if any hoards in, or immediately about them, had escaped our notice, it was reasonable to suppose that the persons who knew where they had concealed things (supposing everything not to have been discovered,) would naturally look after them the very first moment they could, and a return of plague might have followed.

The people were therefore not strictly confined to their houses, although still prevented from mixing with other families; and they were recommended to ventilate well their houses, and look about them as much as they pleased, so that if there really had been any undiscovered articles which contained the contagion, it might have shown itself before their period of quarantine expired; and the sooner it made its appearance the better.

*General Return of the District of Lefchimo on the  
29th of April, 1816.*

Sick in the Lazaretto	...	...	...	...	...	...	30
Convalescents from plague, exclusive of those employed as expurgators							42
							72
No. 1. Camp, <i>simply suspected</i> , formed on the 26th February, and no admissions received into it	..	...	...	...	...	...	202
No. 2. Camp, <i>simply suspected</i> . First division, formed on the 26th February, and shut the 12th April	...	...	...	..			140
Second division, formed on the 21st April, and shut on the 28th do.							87
							227
No. 3. Camp, <i>highly suspected</i> . First division, formed on the 29th March, and shut on the 10th April	...	...	...	...			81
Second division, formed on the 11th April, and shut on the 25th do.							67
Third division, formed on the 26th April, and shut on the 27th do....							15
							163
British troops simply suspected, in observation apart from the natives							27
Greek infantry, ditto	...	...	ditto	...	...	...	8
							35
							699
						Total	699



I can hardly find words to express the universal joy which was spread over the whole district of Lefchimo, particularly in the upper part, when the first camp liberation took place on the 29th of April; I say particularly the upper part; for the inhabitants of this district were first liberated, as the expurgation of Lower Lefchimo was not yet completed; consequently, its inhabitants could not yet be sent home. The people seemed to feel a new life infused into them; and from a state of sadness and despondency, they gave way to the most extravagant expressions of joy and exultation, which it were difficult to describe, and which are produced by feelings which only those can have an idea of who have been similarly situated. They did not, and perhaps even could not fully understand or appreciate the meaning of the system that was being carried on, or the advantages resulting from it; and it must be allowed that people can seldom under any circumstances reconcile to their feelings the necessity or advantages of quarantine restraints. They now saw, however, what they could never be brought to believe before, that we had no wish whatever to keep them in the camps longer than it was absolutely necessary; and that it was not from mere caprice or cruelty that we were acting, but that, from every consideration both to their individual good and the general safety of the community, we had been induced to use these seemingly harsh and unpalatable measures. I myself cannot well express my satisfaction on delivering the people over to the officers to be conducted to their homes.\*

On liberating this camp, it was fully explained to the other camps that they should all be sent home as fast as it was possible, consistent with the public safety; and to those who were discharged, now and subsequently, I earnestly recommended,

\* The first liberation took place on the 29th April from No. 1 camp, simply suspected; and the number then discharged amounted to 139. At the end of fifteen days, on the 15th May, they were allowed to communicate with the villagers, by proclamation from government.

Those belonging to Lower Lefchimo could not be liberated, as I said, until

that if they had anything concealed, they would not touch it themselves, but mention it to any of the officers, or to their magistrates, when, on their acquainting me with the circumstance, I would immediately send some expurgators to destroy it, and pay them its value. I also warned them against the danger of touching any rags or pieces of cloth which they might accidentally fall in with. Possibly, by this time, no plague contagion might remain in such, but, at all events, it was much safer to let them alone.

One would have imagined that the sad havoc which the plague had made among the papas in Upper Lefchimo, at the beginning of the malady, would have deterred those in the Lower from violating the quarantine laws there; but such was not the fact; for those papas, from their bigotry, ignorance, and superstition, were in themselves the authors of serious mischief, and indirectly were the cause of the infringement of the laws, by their influence over the minds of the ignorant country people, until we brought the *whole of them* into the camp district, and placed them in strict *surveillance* there, where they could do no harm, and thus frustrated their mischievous practices for the future. I had frequent occasion in my official reports to notice the turbulent and refractory conduct, not only of the papas, but also of the people of the lower district generally. But the General was unwilling to adopt measures of severity, and eventually we succeeded in extirpating the plague without them.

Whilst the expurgation was going on in Lower Lefchimo, some of the papas there made application to Mr. Tully for permission to hold a religious meeting on Easter Sunday, a day of great ceremony, according to the rites of the Greek church.

their houses were expurgated and made ready for their reception; and they consequently were not sent home till some days after.

The integrity of the camp No. 1 never was interfered with. Not so that of No. 2, of the same class, where the admissions were received as they occurred, until I put a stop to them, opening another division of the same class, as I have already mentioned.

This Mr. Tully very properly refused, giving them his reasons for so doing, and with these they seemed at the time quite satisfied.

At this period, the village of Melichia had been thirty-seven days free from plague, and, according to all reports, the inhabitants had enjoyed good health, and had been carefully expurgating their effects, and obeying the rules of quarantine ; so that, in fact, they were already considered free from plague, and would have got free pratique among themselves in a few days, when, on the thirty-seventh day from the last plague accident, the disease re-appeared. Mr. Tully, who was on the spot, lost no time in investigating the matter; when he found, to his great surprise, that three churches in that village had been clandestinely opened, on the night preceding Easter Sunday, by the papas, who had performed service in them to the inhabitants. This happened on the 20th of April, and on the 23rd the disease appeared, and was removed to the lazaretto; while those to whom direct communication with the impested family was traced, and all those who were known to have been at the churches on the occasion mentioned, were sent, according to their different degrees of suspicion, to quarantine or observation in the camps; the whole, first and last, amounting to 92.

Mr. Tully, in his report to me of the 26th April, on these matters says—"I am credibly informed that these papas, in open violation of the laws of quarantine, and in defiance of repeated orders on the subject, and a refusal from me to their request, have celebrated mass on Easter Sunday at midnight."\*

We were greatly alarmed at the appearance of plague in Melichia at a time when we had so little reason to expect it, the more particularly when we knew the promiscuous meeting that had taken place; but we were thoroughly convinced that it was owing to some second cause, some secret violation of the laws

\* After this, I determined to remove all the papas to the camps, and thus to prevent similar congregations of the people.

of health. The prompt measures, however, which were resorted to on the occasion effectually prevented the much dreaded mischief from extending.

It was afterwards ascertained, through the medium of confession, that a man named Samueli, belonging to Potami, had evaded the sentinels, and thrown across the river some piastres wrapt up in a piece of linen, to a woman of the name of Canta, for the performance of some service which he required of her. This woman took up the money, wrapt up as it was in the cloth, and placed it in her bosom. She gave it afterwards to her daughter, Maria Canta, just as she had found it. A few days after this, the daughter was attacked with strong symptoms of plague, and was immediately sent to the hospital, where she soon died. The mother, who had handed her the money, and attended on her till her removal, escaped.

Some cases of plague had lately before appeared in the village of Potami, and we knew, or at least suspected, that the enemy was still lurking there; and means were taken to cut off Potami from the other villages; but this was evaded by Samueli in the manner just described.

Soon after this, the plague manifested itself in the family of Samueli, which consisted of five persons, every one of whom died. I have no doubt, therefore, that the plague was in his family, and actually in his own constitution, at the time he threw the money across the river, although the symptoms had not then manifested themselves. It was strongly suspected that the disease had been introduced into his family from robbing one of the impested houses, which had not yet been expurgated. Indeed, we had too great reason to believe that several desultory cases of plague, which occurred towards the end of the malady, were owing to this cause, although the fact could not be brought home to the guilty. In plague, it is sometimes even more difficult than on other occasions to obtain positive proofs, so as clearly to convict the offenders.

The re-appearance, therefore, of the plague in the villages of

Potami and Melichia rendered it necessary to cut them off from the healthy villages ; and Captain Bocca Chiampi, the military commandant of Lower Lefchimo, was accordingly directed to take the proper steps for effectually doing so.

I was apprehensive that these desultory cases of plague which occurred among the villages of the lower line would have prevented the return of the people belonging to these villages who remained in the camps ; but when it was considered that these were only solitary cases, caused by individual irregularities, that they were promptly removed, as well as every one suspected of having had intercourse with them ; that plague was not prevalent in the villages now shut up ; and that the cases which did occur were satisfactorily traced to those irregularities, there was less reason to dread mischief than if their sources had not been discovered. Moreover, it would have been a great hardship on the people in the camps to have had their period of quarantine protracted on account of the irregular and nefarious conduct of the people remaining in the villages ; thus punishing them for the misconduct of their wicked neighbours, which was not to be done if it could be possibly avoided. It was therefore decided by the Major-General, and the result proved that he was right, that these solitary cases of plague should not prevent the return of the people to their villages, or protract the great object we had in view, that of bringing everything to as speedy a conclusion as possible, as their houses were now expurgated, and ready for their reception ; and there was the less danger to be apprehended from carrying this measure into effect, as they had still to perform a quarantine of fifteen days after their return, during which they could run no risk from any plague remaining in the villages : and if even during the term mentioned, or subsequent to it, some cases of plague should occur, the same plan of management now in force, which was to be continued as long as necessary, would have checked immediately any mischief which might start up.

By thus sending home the people to occupy their houses in

the villages, though solitary cases of plague did occur there afterwards, an immense step was gained towards free pratique ; whereas, if that had not been done, and had they not been returned until forty days from the last case of plague, according to the old mode of acting, there was no saying how long these poor people would have been confined in the camps, or to what period the operations would have been protracted.

It is necessary here to mention that previous to the people having been sent from the camps, those inhabitants who had been shut up in the villages were liberated and allowed free pratique among themselves ; and it was the intention, after the expiration of the fifteen days of quarantine which the people had to perform after their return to their homes as a proof of the expurgation of their houses, that they also should be liberated, and allowed free pratique with the rest of their townsmen within their respective villages, but not to mix with the others, (should no appearance of plague occur to prevent their doing so ; ) and it was a happy circumstance that, during the whole period, the trials of the health of the people on their return to their homes were going on, no case of plague ever occurred to prevent the proposed measure, or to throw any doubt on the expurgation being completely perfect in destroying all contagion.

It is seen that the first camp liberation took place of the class of *simply suspected*, after they had completed their full quarantine of forty days.

The *highly suspected* class, or camp, from its very nature, bears a worse character than the *simply suspected* one ; because it is here supposed, much more than among the other class, that the plague exists ; consequently there is more to dread of the plague starting up here, and it is usual on this account to order the full quarantine of forty days. I believe it never has been considered prudent to release any of that class until after the expiration of that time ; and on some occasions many have had to perform what is termed forty days of *foul quarantine*, and also

forty days of *clean quarantine*, making in all not less than eighty days, a prolonged confinement exceedingly appalling to those whom it is necessary to place under restraint, and which I conceive can never be required for the protection of the public health, if proper measures are adopted.

In our peculiar situation it was necessary that as little time as possible, consistent with the permanent security of the island, should be lost in sending the people of this camp, still remaining, home; and I find on reference to the dates, that the liberation of the first division of this camp took place on the 11th of May, just twenty-five days from the last accident of plague which occurred in it, and which was on the 17th of April. This was an experiment which, from necessity, in our own peculiar situation, we were obliged to make; but which, according to the old system, could not have been authorized. Be it remembered, however, that we were all at our posts, and knew what to do in case of failure.

I find on examining the returns of the *highly suspected camp*, that all the divisions and sub-divisions had been liberated and sent home to their respective villages after a period of twenty-five days from the last case of plague which occurred in them, or the date of their being shut up, and this, as was afterwards proved, with perfect safety; thus showing, as far as the case goes, that there is no necessity for the lengthened quarantine of eighty, or even of forty days in any case, if purification is properly attended to.

Under the same management, the persons *simply suspected*, who were sent to the camps, were afterwards released at the end of sixteen or seventeen days, thus reducing the usual period of forty days to less than one half of the time, and with safety.

It is not necessary to detail the different periods at which these camp liberations were made. Suffice it to say, that after performing a quarantine of observation for fifteen or seventeen days, they were sent back to their villages, where they again performed a further quarantine of fifteen days for the proof

of their houses, at the end of which they were allowed to mix freely with their neighbours.

It happened in the plague of Lefchimo that several persons supposed to have plague were sent to the hospital, who soon afterwards got well, and continued for a length of time in apparent health, so that it was uncertain at the time whether the complaints for which they were admitted were really or not very slight cases of plague, until afterwards, some of them were attacked by the malady with violent symptoms.

These are distressing cases, but such will happen in the time of plague, and cannot well be always prevented, notwithstanding all our care.

With regard to such cases, my opinion is, that in the first instance the complaints were not plague, but that the patients contracted the disease in the hospital. It might, however, have been otherwise.

It will be found, too, that sometimes persons in a distressed state of mind, seeing their nearest and dearest friends and relatives carried away to a pest hospital, and actuated by the strongest natural affection, which makes them unwilling to be separated, pretend that they themselves are very ill, in order that they may be allowed to accompany the dear objects of their regard. Of this I have already given an example. These cases, when they occur, are to be deplored; and it is to be regretted that any affectionate feelings, though otherwise so much to be cherished, should ever induce persons to put themselves, without necessity, in such imminent danger, where, sometimes at least, all the attention they are able to bestow can be but of little service to the patient himself. For my own part, I am so convinced of the additional danger they thereby expose themselves to, that I would pause and examine well into the matter before I allowed such feelings to be regarded.

When, however, it happens that cases supposed to be plague are admitted, and which, after a time, turn out not to be such, they ought to be removed from the pest hospital as soon as



possible. They should then undergo the complete *spoglio* ; and be well washed. This is all that can be done to preserve them ; and if they are not already contaminated, we have every reason to hope, if at the end of fifteen days they are free from plague symptoms, that they will eventually be saved ; whilst, on the other hand, should they be permitted to remain in the hospital, every day adds to their danger ; for there is no fact better established in medicine than that the body will not receive infection at one time, but will readily do so at another.

As soon as I saw that the plague was attacking some of these persons, whom it would appear had been admitted into the hospitals as cases of *positive plague* before my arrival, and who, having soon got well, were borne on the hospital return as convalescents, I began to be alarmed, for I knew the almost universally received opinion that those who have once passed through the disease are in little danger from a second attack in the same season ; I suspected what these cases were. I immediately dismissed all those from the hospital barriers who appeared to be well, and placed them in quarantine near it, under the eye of the guards. Had I been aware of these cases, I should not have allowed them to remain one hour within the barriers or to mix with the patients or convalescents ; but I never suspected the matter until it was reported to me that some of the convalescents had been attacked a second time, and were very ill. Of course, the sick were attended, and remained in the hospital, and the quarantine of the others commenced from the day they left it, until they were finally liberated.

It is probable that cases of this description have led to the opinion that patients have been attacked with plague twice during the same season, when, in point of fact, they were only attacked once ; and hence the conclusions have been drawn that when they died, they died of a second attack, and when they recovered, that second attacks are seldom fatal.

It will be found to be extremely inconvenient, if not altogether impossible to dismiss, for the performance of quarantine, the

convalescents from plague as each respectively has passed through the disease, in the same manner as we are accustomed to discharge convalescents from an hospital in cases of fever, or other complaints; for every such convalescent from plague requires the same management, and the same scrupulous attention to well guarding, as if the number of such was considerable. It were difficult to accomplish this, even if we had a separate apartment, or tent, to place each individual in, for the keeping the account of so many different quarantines would be liable to confusion, independent of the trouble of doing so; and in an encampment, as I have stated, it would be almost impossible, since it would increase the military duties beyond all reasonable bounds, to say nothing of the extraordinary expenses which would be incurred from placing each individual in a clean tent by himself. Besides, strictly speaking, no one can be considered as convalescent from plague until all his sores are healed, which often requires a long time after the immediate danger is over, and indeed, after he has safely passed through the disease; for until these are perfectly healed, and even for some time after, they are found to be as liable to communicate the disease to healthy persons, as they were during the violence of the symptoms. It is, no doubt, unpleasant for individuals to be prevented from entering on their foul quarantine as soon as they can fairly be considered convalescents and in health, except as regards their sores; and I do not mean that in every case this is to be done, because it may be necessary at times to deviate from this regulation; but I mean to say that their being detained for some time after will most probably not add to their danger, however unpleasant and inconvenient it may be to them. It will be better, therefore, to defer encamping them, or even placing them in houses, until there is a number of them collected together, when the same management will be sufficient for all.

In my inspections of these convalescents, I remarked that the buboes seemed to have healed more kindly than we generally see in some cases proceeding from venereal complaints; for of the

whole, only one remained fistulous, and this was that of a careless fellow, who would not keep himself quiet, or attend to the directions given him. I remarked also that the site of the pestilential bubo in the groin was as nearly as possible that of the venereal bubo. I mention this, because it has been generally believed that the situation of the pestilential bubo is sometimes lower than the other.

Previous to placing the convalescents, and the cases of supposed plague, on their foul quarantine, it became necessary to prepare a place where they could be properly secured. For this purpose, a strong palisading was erected, having three sides of a square, with an open front towards the sea. These were divided by a partition, or what may be termed a street, within which the sentinels were posted to prevent all intercourse between the two classes into which the whole were divided; one of which consisted of the few cases of supposed plague, as I was unwilling to expose them to additional danger, by placing them in the same divisions with the convalescents from plague. The second division consisted of those who had passed through the disease, and were perfectly cured. The period of quarantine was the same for all; although I give it as an opinion that the one of the supposed, or doubtful, cases might perhaps have been diminished. The whole who were encamped on this occasion, exclusive of the convalescent expurgators, amounted to 59.

Before the people entered this encampment, they were all carefully examined by myself, to see that they had no running sores; and those whose sores were not perfectly healed were kept back till the final encampment of the whole, masters, servants, *condannati*, &c., took place, when the hospital finally was broken up.

After this examination, and when the people had been well washed with soap and water, each individual received an entire suit of clothes, which had been sent down from the city for them, and at the end of 40 days from the date of their being encamped, they were furnished with another suit, more as an act of gene-

rosity from Government, than of necessity. Their own clothes were collected together by the *condannati*, and burnt, care being taken that on entering the encampment, every article capable of containing the contagion was taken from them and immediately destroyed. Such of them as had gold or silver coins, or ornaments of precious metal, received these back after they had been passed through hot vinegar and water; and in order to prevent anything from being stolen or mislaid, the owners themselves stood by to receive them; after which, they were marched off to their tents.

As I was apprehensive lest some of them might have secreted things about the hospital, I particularly explained to them the necessity of producing every article so concealed, in order to have it purified, when it should be restored to them; warning them, at the same time, that if they did not follow my injunctions, such things, when found out, would become the property of the expurgators, when the hospital was expurgated, as was done in the plague of Malta.

I observed also at these inspections that several of the people wore charms tied about their necks, to which they imputed their recovery from plague. These were kept in little bags, some of which they were very unwilling to part with. In some of them were little bits of bones, or other hard substances—relics, no doubt; and in others, old coins or holy medals. These charms, or amulets, on which they seemed to set a great value, were of course restored to them, after they had been properly cleaned.

## CHAPTER VI.

The people returned from the camps unwilling to occupy their houses—Not fewer than three persons supposed sufficient to prove an impested house—Considerable anxiety whilst such proofs were going on—The people now remaining in the camps permitted to draw supplies from their villages—The corps of expurgators diminished—Directions to the medical officers whenever sickness should occur in the district—The people permitted to pull their flax, but not to steep it for the present—A discovery of *concealed* goods made by accident—An alarm of plague in Marathea—Craftiness and ingratitude of certain inhabitants of Lefchimo.

I HAVE already stated that the people in the camps, whose period of quarantine had expired, had been sent home to their villages to perform a quarantine of fifteen days in their houses, as a proof of the expurgation being perfect, and also of their own health. I find it, however, necessary to return to that part of the subject, and to mention some difficulties which occurred in carrying this measure into effect.

Many of the people, partly from fear and partly from other considerations, were extremely unwilling to submit to this order; and some of them, particularly in Perivoli, positively refused to obey it, alleging that they would rather wish me to give orders to destroy their houses at once than subject them to a quarantine of fifteen days in such comfortless and dilapidated habitations, as also to the danger they apprehended from again being impested by occupying them. Indeed, I have no doubt that some would have been glad if I had ordered their houses to be burned, as they thought they would then have a claim upon government for indemnification. This, however, was not the only consideration, although it would have been of itself a very serious matter, which no government could be expected to grant. But there was another question involved in this, which was the ascertaining by proof whether plague contagion remained in the houses, and whether the island was per-

manently secured, both of which would be affirmed, if no plague broke out among them afterwards. It was therefore determined that no plea should be admitted, or any pretence allowed, for not occupying on their return their former abodes, as free pratique among the villages would not be granted until the period mentioned of fifteen days further quarantine was safely passed.

It sometimes happened that the families just returned had (let us suppose) three separate houses, all of which had been treated as impested, and consequently were to be occupied. In this case, if the family consisted of nine persons, three were sent to each house; for supposing that the seeds of plague remained in them, and that only one, or even two persons occupied a house, it might happen that the one or two inmates were unsusceptible of plague, but if three occupied it, the probability was that some of these (all being supposed to have free intercourse with one another) would contract the disease, and show that plague still existed in them; whilst, if they all escaped, it was the strongest presumptive proof that all was right, and the most satisfactory experiment that could well be made, at the same time that the enemy, if he still was lurking anywhere, was turned out, and met upon our own ground. Indeed, we had no other mode of arriving at the certainty we wished, and which it was necessary to obtain. Three persons are the least number that ought to be taken in a case of this kind.

It also happened that some of the families had been so destroyed by the plague as to have but one solitary individual left belonging to each of them. In such cases, either the proprietor himself or the magistrates were directed to procure for hire persons to perform this proof, the expense and maintenance of whom were defrayed by the proprietor; nor latterly did we experience any difficulty in finding such people among those who had returned from the camps. On a few occasions, the proprietors refused to defray the stipulated recompence after

the period had expired, when I was obliged to interfere, and cause payment to be made, or security to be given.

The expense of purifying the public buildings, such as the churches, was defrayed by the community, and proper persons to prove them were hired by the magistrates for that purpose.

We had so much trouble at first in settling these matters, that, in order to prevent any future discussions on the subject, it was determined to arrange the distribution of the people before they left the camps. Thus, if a village contained three impested houses, and if there were nine persons returning to it, three were sent to each house, no matter whether the house belonged to themselves or not. This, of course, produced dissatisfaction among some; but the feelings and caprices of people are not always to be attended to, and it was important that free pratique should not be delayed on this account. It was, perhaps, not a matter of very great consequence whether some of the houses were occupied or not, as I am perfectly satisfied that everything was well expurgated, consequently I did not conceive that there was any real danger. Yet it was necessary to conform to the rule laid down, and to make everything quite clear.

It may naturally be supposed that, whilst these trials of health were going on,—the result of which was either to cut short our wearisome labours or to extend them perhaps to a considerable length of time, should we happen to be involved again in plague,—every one felt extremely anxious till the probationary period was over. Indeed, I can hardly express our feelings of satisfaction when, at the expiration of this ordeal, I found, on my final examination, that nothing like plague showed itself among the people.

Some of those still remaining in the camps having expressed a wish to be allowed to receive some provisions—such as oil, wine, vegetables, &c.—from their friends in the villages, which by this time were in perfect health and in free pratique amongst themselves, the request was immediately granted, taking care,

however, that nothing of a susceptible nature was attached to the articles sent, not even a piece of string, and those of each village bringing their supplies at a different time, in small parties, generally twice a week. These provisions were then deposited at a certain place, under the inspection of a military officer, who was responsible that nothing susceptible was attached to the things, and that no intercourse took place between the people and the camps. The persons for whom they were intended were then called to fetch them, and were allowed to hold as much conversation with their friends as they pleased, but not to come in contact with each other. The people also wished to receive a supply of clothes; but this, for obvious reasons, could not at the time be permitted.

About the 6th of May, it was reported to me that a case of plague had appeared among some shepherds, who were tending their flocks in an insulated place in Lower Lefchimo, which was supposed to have originated from some of them having been concerned in robberies that were going on, or from their having fallen on some impested effects. For fear lest anything serious should spring out of this circumstance, their state of health was immediately examined by Mr. Tully, and they were afterwards sent to a distant part, under a military escort, to watch and prevent their having any intercourse with other persons. They were again frequently examined, and after a period of ten or fifteen days, and being found free of plague, the guard was withdrawn from them; they were permitted to leave their present abode, and to feed their flocks as usual, but were directed not to enter any of the villages. Lest there might have been any concealed effects in their huts and haunts, these were examined by the expurgators.

In this instance, the shepherds were not sent to the camps, as usual, on account of their flocks, which would otherwise have been lost or destroyed, to the serious detriment of the proprietors.

By the 25th of May, the expurgation of Lower Lefchimo



was completed, and all the impested things either destroyed or sent to the depôt, or purifying-house, already mentioned as having been burnt by the orders of government. By this time, too, all the people of Upper Lefchimo had returned home, and the inhabitants of the villages were permitted, by proclamation from government, to mix freely with one another.

It being, therefore, no longer necessary to keep up so great a number of expurgators, amounting at the time to nearly fifty, on full pay at a very serious expense, it was determined to diminish this force by discharging the convalescents from plague for two reasons—first, in order to save expense; and secondly, to place them on the performance of their foul quarantine, which determination could at this time be easily realized, as the state of the public health all over the district was favourable, and we had a sufficient number of others (those which had been sent from Malta) left to finish what still remained to be done, and to manage any plague cases, should such unfortunately break out.

The convalescent expurgators, amounting to twenty, were therefore discharged, and encamped under the same course of examination and management as that already mentioned, so that the whole of the convalescents and expurgators now encamped amounted to seventy-nine.

I may here give a statement of Lefchimo on the 1st of June, after all these people were encamped, and before the pest-hospital was broken up, on the 23rd of June, when the whole were placed in camp for the performance of their quarantine.

*General State of the District of Lefchimo, June 1st, 1816.*

Camp of simply suspected (a sickly creature, unable to be removed, and who died soon after) . . . . .	1
Camp of highly suspected . . . . .	2
Under cure in the hospital . . . . .	8
Convalescents from plague . . . . .	59
Ditto who had been expurgators . . . . .	20
	<hr/>
Total . . . . .	90

On the 8th of June, all those under cure in the hospital were pronounced convalescent, struck off the hospital return, and added to the convalescents, making in all eighty-seven, including the few doubtful or supposed cases of plague.

In anticipation of the approaching hot season, and the fevers we expected in consequence, I had given instructions to the different medical officers to be on their guard against such appearances as the plague usually assumes, and whenever anything of a suspicious nature occurred, to place the house in which it appeared in quarantine till such time as the matter was satisfactorily cleared up. They were also supplied with medicines proper for the complaints of those who might fall sick.

As it was of the utmost importance that every case of sickness should be immediately ascertained and inquired into, most particularly where symptoms of fever showed themselves, I directed all the medical officers of the district to lose no time in apprizing me of whatever indisposition occurred either among the natives or the military, that I might see them before any steps were taken in the matter, or false alarms spread abroad, which, whether well or ill founded, would not only affect the character of the district itself, but also that of the whole of the island.

With the view, also, of diminishing the duties of the military and the guardians, who were much exposed to fatigue and the hot weather in bringing me the daily reports, I directed that, unless there was anything particular, the daily reports from the villages should henceforth be suspended; and to make the duties as light as possible to every one, I used frequently myself to ride to the villages, to learn what was going on there, and, from time to time, to examine such cases of sickness as occurred. In places where permanent sentinels were posted, temporary *barraccas* were erected to screen the men from the sun. Happily, however, although many cases of autumnal or remittent fever occurred in various parts of the

district, yet no plague ever made its appearance to interrupt the arrangements which were going on, or to protract our stay on this distressing and anxious duty.

I have stated before, that the people had been in free pratique within their respective villages, but as yet they were not permitted to communicate with the others. The time now arrived when it became necessary for the inhabitants to pull their flax; and they made application for permission to do so. This was, of course, immediately accorded, care being taken that the inhabitants of each village pulled the flax at separate hours; otherwise, all restriction would have ceased, and the system we were going upon would have been infringed, which could not have been permitted; for if that had been done, most probably some of them would have been shot by the sentinels, who were posted to prevent communication between the villages; and it was fully explained to them that this permission to pull their flax was granted them on the express condition that they should not attempt to exceed their proper bounds, otherwise the indulgence would be immediately withdrawn, until free pratique was given to the whole of the upper part of the district.

But though permission was granted them in this instance, it could not be extended to them on all the occasions on which they required it; for if so, all idea of quarantine restraint would have been done away with, or, at least, would have been merely nominal, and, as I have already remarked, it would have been quite impossible to have employed the military to watch over so many scattered parties.

A fresh application was soon afterwards made for leave to steep their flax in rivulets and stagnant pools near their villages; but this I positively refused for the present, conceiving that it might be productive of sickness, which, under existing circumstances, would have caused great uneasiness, and was therefore to be particularly avoided.

Thus, at the time that it was necessary to look after the public health, the request for every proper indulgence consistent with

that important object was readily acceded to ; and in diminishing the misfortunes of the people as much as possible, we endeavoured to remove from their minds every unfavourable impression of unnecessary severity on our part towards them.

I have already stated, that all the persons, on leaving the camps, were questioned as to their having any concealed effects, and that a reward was given to those who made any discoveries ; but where no confessions were made, I was naturally led to suppose that nothing was hid. However, some time after the issue of free pratique within the villages, Mr. Tully reported to me that a man named Colluri, belonging to Sant. Theodoro, who had lately returned from the camps, had, under cover of the night, gone to a place near his house, where he had secreted some cottons before he had been sent off to quarantine. The probability is that he wished to ascertain in what state the cotton was ; and finding it much damaged, wished to burn it and conceal the matter. The cotton being wet, would not burn, but sent forth a cloud of smoke, which led to the discovery of what he was doing. As soon as the affair was known, one of the expurgators was sent to complete the destruction of the cotton.

This provoking circumstance gave me a good deal of uneasiness, and led me to suspect that, as this had been discovered by mere accident, there might be other hoards of concealed things, the rooting out of which became now our principal concern ; and our anxiety in this respect was almost as great as if the plague had been raging at the time. This audacious and wicked fellow whilst in camp must have seen me day by day going round and entreating the people, with money in my hand to pay all who confessed to whatever they themselves had concealed, or knew to be so by others. Yet he, as well as all the rest, declared most solemnly that they neither had concealed anything themselves nor knew of others who had done so. This man deserved to have been punished in the most exemplary manner, but General Phillips was averse to severe measures ;

the only punishment, therefore, inflicted on him and his family was sending them to camp, and keeping them prisoners there, until all quarantine restraints were finally removed from the district.

Whilst things were going on thus favourably, a circumstance occurred which eventually, although productive of no bad consequences, caused, nevertheless, considerable alarm at the time.

At the inspection of the inhabitants of Marathea, on the 3rd of June, Mr. Muir, assistant staff-surgeon, discovered in a boy about ten years old, belonging to that village, and who was at the time indisposed, a swelling in his groin, of which he complained a good deal. This, at another time, would have been considered of no consequence; but at this moment, and on such suspicious ground as Marathea, it was a very unpleasant occurrence; for if it had turned out to be a case of positive plague, it would have probably retarded the general pratique, and thrown a certain degree of suspicion over the whole district, notwithstanding that everything hitherto had gone on most favourably. Had the boy died, even though I might myself have been convinced that the case was not plague, I am afraid that, according to the laws of quarantine, it must have been considered as such, and consequently been productive of much vexation to all concerned in this service.

Every human precaution had been taken, and with the most scrupulous anxiety by all concerned, and the contagion, in every shape and form, considered to have been eradicated with as much positive certainty as anything of the kind had ever been, or could well be, in every part of the district; for what still remained was supposed to be entirely confined within the camp district; and from this there was nothing to fear, as it had always been well looked after and guarded by Captain Zerbi, of the Corsican regiment, who was nominated the military commandant there. A case of plague occurring now was therefore not at all calculated upon; and if such had really happened, all our calculations, on the present as well as future

security of the public health, would have been at least doubtful and uncertain, in showing that all contagion had not been perfectly destroyed; for if but one solitary case of plague had occurred, the origin of which was not thoroughly ascertained to have been perfectly unconnected with the expurgation, there was no knowing how many cases might occur afterwards, nor where the mischief would terminate.

Immediately on the occurrence being reported to me, on the 5th June (two days after,)—for at first Mr. Muir did not think it necessary to mention the case, considering it a thing of no consequence, from the absence of other marked symptoms of plague, although he immediately took the precaution of separating the boy himself, as well as those in communication with him, from the rest of the villagers,—I rode off to examine this boy myself, and to inquire into all the circumstances of his case. I found him with a slight degree of fever and headach; his tongue was not clean, but it did not exhibit that peculiar glossy appearance which I had observed in plague; nor had he that anxious look, nor the staggering, so expressive of that disease. On examining the groin, I found a rather diffused enlargement of the inguinal glands, which he said was painful on being pressed; and on looking at his leg and foot, I observed, what indeed Mr. Muir had already mentioned to me, that there was a sore on the boy's foot on the same side, to which Mr. Muir attributed the swelling in the groin, from the irritation and absorption of matter, and which had been caused by the prick of a thorn some time before. This, and the absence of the other characteristic plague symptoms, added to the perfect health of the other inhabitants, convinced me that the case was not one of plague, and that the swelling in the groin, as well as the indisposition, were only attributable to the cause I have mentioned.

Although I was of opinion that the case was not plague, yet, as towards the decline of the malady it has been supposed that cases of real plague are sometimes remarkably slight, I determined to send him to the camp, placing him by himself in a

clean tent, apart from every one else; doing everything in my power to render him comfortable, and amuse the poor little fellow during the confinement, which I trusted would be only for a short time. It was necessary to place him in this sort of restraint, in order not only to watch over the progress and see the termination of his disorder, whatever it might be, as I was extremely anxious about him, but, as he required medical treatment, he could be much better looked to in the camp than it was possible for him to be in Marathea, where there was no medical officer stationed.

He remained in the camp nine days, and was afterwards sent home to his friends, with the sore in his foot quite healed, the swelling in his groin almost entirely discussed, and without his having had any symptoms which could lead us to conclude that his indisposition, and the swelling in his groin, proceeded from plague.

About this time, a circumstance occurred in the district, which, as arising out of the consequences of the plague, and in some degree showing the craftiness and ingratitude of the inhabitants of Lefchimo, it may not be improper to mention here.

The primates and deputies of the villages having represented to me that they thought they would be able to raise a crop of corn after the issue of free pratique in the district, (which was contemplated to take place on the 15th or 17th of June, if nothing occurred to prevent it,) should the government only be pleased to afford them the means of doing so, by granting cattle to plough their fields, their own bullocks having been slaughtered early in the calamity, in order to supply the troops with meat, and the few horses they had being unaccustomed to plough, I consequently felt it my duty to call the attention of the government to this circumstance, and to state to the Major-General, in the strongest manner, that it would be good policy, as well as humanity and kindness, to comply with this request; for, should they be thus enabled to raise a crop of corn in the season, this would prevent their being entirely

dependent on the city for a supply of grain, which would otherwise be the case, and the maintenance of upwards of 7000 souls, depending for the greatest part of their necessary supplies from that source, was a matter for very serious consideration.

I soon after received a letter from the Major-General, (who, if I mistake not, was at that time, in the absence of Sir Thomas Maitland, performing the functions of the Lord High Commissioner, in addition to his other duties,) to say that my proposal would be acceded to as soon as possible. I communicated this information to the magistrates, who expressed their thankfulness and gratitude on the occasion.

Shortly after this, the bullocks arrived in Lefchimo, having been procured by the army contractors. As I was unwilling that there should be anything like partiality shown in the distribution of them, I ordered them to be properly paired, and drawn for by lot among those who had requested them. To my utmost surprise, though some individuals received them with proper feelings of gratitude to the government, which had thus, from the kindest consideration of their welfare and future benefit, condescended to supply this necessary means of cultivating their fields, I found that by far the greater part declined taking them, alleging that they were too dear, with other frivolous and affected excuses. I suspected that there was some intrigue on foot, and something at the bottom of all this, and determined to sift the business thoroughly, when I soon discovered that the real motive for their refusing to take the bullocks, which but a short time before they had expressed such eagerness to obtain, as the greatest favour that could be conferred upon them, was, that knowing the cattle had now arrived within the district, and could not, consistently with the laws of quarantine, be sent back to the city, they therefore thought they would get them for whatever price they chose to put upon them. As to their alleged high price, that was merely an evasion, for the Commissary-General would have gladly taken them at the same valuation, as rations for the troops; and several of the inhabitants



of the city offered to purchase them at the contract price. I confess I was forcibly struck with this instance of that people's low cunning and ingratitude, and could scarcely help regretting my having at all interfered in the business. They were, however, afterwards obliged to take the bullocks at the stipulated price paid for them by the government, as I had sent up the names of the persons to Corfu; and to give, on their receiving them, securities for payment, which were afterwards transmitted to the proper authorities.

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## CHAPTER VII.

On congregations of people in the time of plague—Certificate of the health of Lefchimo—Free pratique proclaimed within the district itself, but not between it and the rest of the island—Dissensions respecting property among the people of Lefchimo—The pest hospital broken up—The troops at the principal cordon very sickly from the remittent fever—Another alarm of plague in the village of Cuspades—The first fortnight of a general pratique always a critical period—Short account of the autumnal fever in Lefchimo—A case of sudden death from apoplexy—Necessity of withdrawing the troops from the villages, on account of the sickness among them.

THE villages having been for some time in free pratique with one another, the people became so extremely clamorous to have divine service performed in their churches, that I thought it my duty to report the circumstance to government. It was not, however, deemed fit to grant this permission, notwithstanding that those places had been expurgated and proved, as the tombstones had not yet been sent down to secure the plague graves, which were in some of them; and it was considered improper to grant the permission in favour of any particular one, until the whole of them were ready. Moreover, it was perhaps as well to avoid general congregations of the people for the present.

Mr. Clark, in his "Travels in Russia," vol. i., page 77, gives

a remarkable instance of the bad effects of congregations of people in the time of plague. He says, that "during the plague which raged in Moscow, about thirty years ago, a picture was placed in one of the streets of the city, to which the people eagerly thronged upon the earliest intelligence of it. The Archbishop Ambrose, finding that the danger of spreading the infection increased as the people crowded to this picture, ordered it to be removed and shut up in a church, the doors of which were forced open by the populace, and the venerable prelate, being dragged from the convent of Donski, was inhumanly put to death."

The people, in this instance, superstitiously believed that the saint whom the picture represented would be induced, by their prayers and invocations, to work a miracle in their favour, by relieving them from the calamity. For they were not fully aware, and would not be convinced of the danger attending these congregations, until they were brought to a state of subordination by the interference of the military, which put an end to these tumultuous proceedings.

It will be remembered, that the last case of plague which occurred in the villages was that in Anaplades, on the 6th of May; and calculating from that time, the whole of Lefchimo would be entitled to general pratique within itself at the expiration of forty days, according to the established rules of quarantine, should nothing occur to prevent it. The cases of plague which occurred in the camp district, subsequent to the 6th of May, could not vitiate the character of the villages, nor affect them in any way, they being completely insulated, and wholly unconnected with the villages, as the camp district might be considered entirely under lock and key.

On the 7th of June, I was called upon by the Major-General to prepare a certificate of the health of the district, before the issuing of the proclamation for free pratique *within itself*, by his Excellency the Lord High Commissioner's orders; which cer-

tificate I forwarded to head-quarters on the 14th, as an official document for the government to act upon on the day following, when the pratique was to be proclaimed. It was couched in the following terms—viz.,

Egripos, 14th June, 1816.

I HEREBY certify that there is no apparent cause, either from sickness or unfinished expurgation or purification, or from the non-occupation of such houses and churches as were impested, to prevent my declaring the district of Lefchimo, under my superintendence, to be in a state of such health and security as to permit a *general pratique* and intercourse within itself.

A. WHITE, Surgeon to the Forces,  
Superintending the District of Lefchimo.

In granting this public document, I was aware that the plague graves in four of the churches were not perfectly secured in the manner I had recommended, by placing tomb-stones over them; but the stones not having been sent down, this could not be done for the present. These churches, in as far as regarded the security of the public health, I knew to be perfectly safe, as they had been proved; but, in order to run no risk, they were kept locked up until the stones should be placed over the graves. A few days after, they were opened for the performance of divine service.

On the 15th June, the proclamation was issued, granting *free pratique to the district within itself*, to take place from the 17th. On this day the gates of the city were thrown open, and free intercourse allowed between it and the rest of the island, with the exception of the district of Lefchimo, which, although now in free pratique within itself, was not yet permitted any communication beyond its own bounds; the principal cordon not being as yet withdrawn. But the free pratique within itself was perfectly uninterrupted; and there was nothing now to prevent the people from going from village to village, and working at their usual occupations, the same as if no plague had ever existed among them.

The *Te Deum* was ordered to be sung on the joyful occasion in all the churches of the island, with the exception of those of

Lefchimo, which as yet were not used, as it was thought better to avoid all unnecessary congregations of the people for the present.\*

The inhabitants of Lefchimo were, as might be expected, highly pleased at the issue of the proclamation for general pratique within the district, but very clamorous at not being allowed to have public worship performed in their churches.

On the issue of the proclamation granting general pratique within the district, I received a letter from the Major-General, enclosing a copy of the general orders to the army, in which his Excellency was pleased to express "his high satisfaction at the good conduct of those employed on the plague service, during which every individual uniformly supported the exertions of his superiors, and in which the whole combination evinced in an eminent manner that, with discipline, judgment, and energy, the direst of all human calamities may be overcome."

The people being now in free pratique among themselves, some dissensions took place respecting property; whilst those bearing ill-will towards their neighbours sought and eagerly seized every opportunity of avenging themselves, and serious consequences were apprehended from the conduct of some of those daring and refractory miscreants. Instructions, therefore, were given to the military officers to prevent these acts of insubordination; and I requested that some legal authority might be sent down from the city to settle their differences. I myself had been often solicited to act as umpire on these occasions, and to endeavour to make up matters between them; but I neither found myself qualified for such a task, nor, had I been so, would I have engaged in any such undertaking, having besides at the time sufficient employment of a different kind to attend to.

The plague patients in the hospital being now all in a state

\* I remember, on my return to the city shortly *after all quarantine restraints had been entirely removed*, that I went to the procession and to the cathedral to hear high mass and the Te Deum on the joyful occasion; I found that Speridione, the Patron Saint of Corfu, got all the credit, but that no one else got any.

of convalescence, I ordered that establishment to be broken up on the 23rd June, and all the persons to be encamped under the same management as that observed with regard to the other convalescents. I directed that all the impested bedding and other rubbish should be destroyed; also that the people should white-wash and clean the hospital before they left it, preparatory to my sending in the expurgators to execute that duty finally.

About this time, the troops forming the principal cordon at Messongie, to the number of about 300, became very sickly, in consequence of the remittent fever, which began to thin their ranks very fast; and had already severely attacked Assistant-Surgeon Doyle, who was in charge of that post, rendering him incapable of duty. I was therefore reluctantly obliged to detach Assistant-Surgeon Gemillaro (who was soon afterwards attacked also) from the camp district to relieve him, appointing Mr. Sammut to his charge at the camps; where, at the same time, however, there was very little other duty besides the daily inspections of the convalescents.

When I first inspected this cordon, soon after my arrival in the district, I foresaw that this post would not be tenable when the sickly season set in; and I was convinced, from the low, marshy situation, and the unwholesome locality, that great sickness towards the autumn would ensue. Mr. Doyle reported to me weekly the state of the detachment, which I also myself frequently inspected, and I was quite concerned to see, that as the hot season advanced, so did the sickness increase among the troops. The cause was purely of a local nature—viz., *marsh miasma*, aided by heat; and I was of opinion that if that post could be effectually maintained by occupying another situation, and thus the cause of the sickness be removed, the men would soon become more healthy. There was no other place, however, which they could occupy with equal advantage, particularly during the night; and it was considered of the first importance to maintain the integrity of the cordon until the general pratique of the whole island was declared, which could

not be done, for fear of concealed effects, until at least forty days from the period of granting the general pratique of the district within itself had expired, which would be on the 27th of July. The Major-General, however, was obliged afterwards to diminish the duties of the troops in consequence of the sickness that prevailed. I may here remark, by the way, that when this cordon was first established, some native militia were placed as a kind of first line in front of the British troops, the more effectually to cut off all intercourse with the impested district, and to detect those who might attempt to pass it. Lieutenant-Colonel Voglesang, of De Rolle's regiment, commanded at the cordon during the whole time; and his exertions were of essential service in securing the rest of the island.

Although everything had gone on hitherto as favourably as could be expected, from the rigorous measures adopted, and although the plague was apparently destroyed root and branch in all the villages, and what remained, entirely confined to the camp district; and although the favourable state of the public health had warranted *free pratique within the villages* on the 1st of June, and now *general pratique within the plague district* on the 17th June, we were not yet, from this favourable state of things, to relax or break down the system which was being carried on, and which was required to be kept up for some time longer, in order to place the security of the public health beyond all doubt.

On the contrary, I caused it to be distinctly understood all over the district that the same rigid vigilance, and the same minute examination into every case of sickness, from whatever cause, was to be kept up; so that, in the event of anything appearing, it was to be immediately stopped by the proper means: and in the proclamation which announced the issue of general pratique within the district, the people were given to understand that the rigour of the quarantine laws was still in force in Lefchimo; and that, although they were permitted to return to their usual occupations, they were expressly confined to

Lefchimo ; and neither allowed to go to sea in boats, nor to approach, much less to pass, the principal cordon, which cut off Lefchimo from the rest of the island.

Notwithstanding that everything connected with the public health had gone on as favourably as possible, we had still one cause of dread ; and that was, lest there should still remain any concealed contagion. This all along had been a source of extreme anxiety to all concerned, and, in a certain degree, still continued to throw a doubt upon the future security of the island ; as it was impossible to ascertain whether everything concealed had been discovered. All who had been dismissed from the camps, from time to time, were invariably called upon to reveal everything they had concealed, and several made discoveries, and were rewarded for doing so ; but we had no means of knowing whether they had nothing else secreted, nor was it possible to say whether such was the case or not. It was, therefore, proper to keep up the same system for some time longer, in order to see if any accident should occur.

On the 25th of June, word was brought me by the orderly dragoon from Messongie, that General Phillips wished to see me at the cordon there. I immediately set off to meet him. After a good deal of conversation with him respecting the plague business in the district, he told me, to my surprise, that since he had left the city that morning, he had received a dispatch from Cephalonia, stating that the malady had also appeared in that island. He directed me, at the same time, to acquaint Mr. Tully that he would be wanted for that service ; and he gave me instructions to prepare all the camp equipage I could spare, and a corps of expurgators for that duty ; and to inform Captain Zerbi and Mr. Mazzenti that they were to accompany him. This was a very vexatious and unexpected occurrence, on which I had not calculated, but which demanded my immediate attention, and also prompt measures. I communicated these orders to Mr. Tully, telling him I would have everything in readiness for the embarkation by day-break, at Egrippos, on

the following morning, as soon as the vessel should arrive to receive them on board. The next day, he and his attendants sailed for their destination in Cephalonia, to eradicate the malady there on the same principle as the one so happily acted upon in the district of Lefchimo, and now nearly brought to a close.

I regretted extremely that two gun-boats had not been sent, one for the officers, and another for the corps of expurgators; for as the quarantine of those people had not expired, I was apprehensive of some danger to Mr. Tully and the others, from the communication, which it was impossible to prevent in a small gun-boat.\*

On the departure of Mr. Tully, the medical charge of the lower district devolved on Mr. Goodison, assistant-surgeon of the 75th regiment, whose previous duties there had been very fatiguing and harassing, on account of the refractory conduct, and the deceptions attempted to be practised by the inhabitants.

Having detached Mr. Tully on this duty, it became no longer necessary for him to report to me, but to the Governor of Cephalonia. I am therefore unacquainted with the details; but as the existence of the plague there had been immediately ascertained and proclaimed, and no burning of the people's houses or other dreadful measures resorted to, from which such lamentable effects had resulted in Corfu, the calamity was speedily suppressed, with great credit to himself and all employed on that service; and thus another instance was given of the happy results of the plan of operations carried on in Corfu.

\* It was undoubtedly running some risk to send all these persons in the same vessel, particularly as regarded Mr. Tully and Captain Zerbi, but it is to be observed that I only sent those expurgators whose period of quarantine had nearly expired. Before they were allowed to embark, I ordered all their working clothes to be taken from them, and directed them to wash themselves in the sea; after which they were supplied with clean clothes. This was all I could do under the circumstances, but I confess I was for some time anxious about the others. However, they all escaped plague, and on their arrival at Cephalonia, commenced their respective duties.



While these matters were going on, we had another alarm of plague from the village of Cuspades. A young man, 24 years of age, reported himself to Mr. Alexander as having a swelling in his groin, giving the following account of himself:—About a fortnight before, he had hurt his ankle by tying too tight the strings of his sandals. This produced pain and irritation, which ended in the formation of a small *phlegmon*, with a considerable degree of pain, extending along the inside of his thigh up to the groin. Not thinking much of the matter, he continued his usual labours without complaining, until the 30th of June, when, at last, he reported himself to Mr. Alexander.

The febrile symptoms were extremely slight, and, indeed, not more than might have been expected from the sore, which healed soon after. I did not at the time think the case plague; yet, under all the circumstances, I thought it prudent to remove the man himself and the other three persons of the family to the camp, placing them all in the same tent, where the former could be better taken care of than in his own village; just as had been done with the boy from Marathea. Should the sore soon heal, and the bubo disappear, his three companions remaining all the while in health, I had then the strongest presumptive proof that there was no plague in the case; but had they, on the contrary, been taken ill, with symptoms of plague, it would have been conclusive that the case was really one of plague. Had I even had strong doubts upon my mind on the subject, I would not have kept them altogether, but have separated the sick man from the rest. I feel, however, that if the case had happened in the beginning of the calamity, I should not have been warranted in thus exposing by any experiment of the kind the lives of the other three persons, by keeping them in the same tent with the sick man. Until all doubts were removed respecting this case, the village was again ordered to be shut up; and if I had ultimately been obliged to declare the case to be plague, the usual remedies must have been again put in execution, with

the additional precaution of collecting together the persons who were absent from it at the time, and to have escorted them back to it; as also, further, to have placed in quarantine of observation the houses which I could learn they had visited during the period of their absence, explaining to the people the necessity of these proceedings, and that of their strict obedience to the established orders.

The bubo in the groin soon came to a suppuration, and at the end of three weeks was perfectly healed; when all the party were sent home in good health, and all restraints removed from the village.

A case of glandular enlargement in the groin occurred also in Vitulades. A man of a bad habit of body had what are commonly called scorbutic ulcers in his legs. These, in my mind, satisfactorily accounted for the enlargement; and as he was otherwise in perfect health, no further notice was taken of the case.

The first fortnight of a general pratique is always a most critical period, and demands the most vigilant watchfulness over the public health; and in Lefchimo, from the circumstances I have mentioned, it was peculiarly so. Yet it was important in every way to put the public health to the proof in the manner adopted; and if plague was really lurking, to make it thus come out, and not cause alarm and confusion afterwards, when the restraints should be removed. In short, if the people had concealed effects, it was better they should go to them at once; and if anything was to occur, the sooner it broke out, the better, when we were all on the alert, and ready to suppress the mischief.

It is astonishing to observe how very soon a people forget the horrors of plague, which they have lately escaped; and which, when over, appears but a dream; as also, how soon individuals, who have experienced the greatest privation during the time, will all at once, from avarice and other motives, seem to set even ordinary precautions at nought. It was this that

made us dread the first fortnight of general pratique in Lefchimo, when the people we allowed to mix freely together, and do what they chose within the district; and if they really had concealed effects, we had every reason to expect, as soon as they were at perfect liberty to do so, that they would go to look after them, and might possibly reproduce the calamity from this source. However, after the first fortnight or three weeks, if no plague appeared, we then naturally calculated that there was nothing to fear from concealed contagion; for had there been any such hoards, it was to be expected that their owners would have gone to them, when if plague contagion had remained, it would have shown itself before the expiration of that term.

I had frequently occasion about this time to notice in my despatches the appearance of the autumnal fever among the troops stationed in the different villages, which entirely incapacitated them from the performance of any military duty. It also attacked several of the inhabitants: the period of their convalescence was extremely tedious, from the great debility.

The general symptoms were, violent headach, thirst, flushed face, rigors, pain of the back and loins, prostration of strength, loss of appetite, pulse quick and hard, with considerable heat and dryness of the skin; heaviness over the eyes and a foul tongue, which was sometimes dry and furred. The bowels were generally confined, and when opened by medicine, the *feces* were often hard and dark-coloured. The debility, often after a few days' illness, was very remarkable. In some cases, there was considerable irritability of the stomach, with vomiting and purging, great oppression of the *præcordiæ*, and restlessness. The symptoms terminated in fever, sometimes of the quotidian, sometimes of the tertian, and sometimes of the quartan type. The paroxysms in those fevers were often very severe, and generally followed by a profuse perspiration. The appearance of the countenance was sallow, which in some of the patients assumed a yellowish hue.

The fever both among the natives and the troops seemed to

be tractable, and yielded to the usual mode of treatment, which was purges of calomel, with the extract of colocynth, saline purges, sudorifics, tonics, &c. I found the *centaurium minus*, of which there was abundance growing wild all over the district, a much better tonic than the *cinchona*, and it set better on the stomach. It was exhibited in the form of strong infusion, and as much of it was ordered to be taken at intervals as the stomach could bear.

The fever seemed to me to be little, if at all, different from the autumnal fevers which I had frequently seen in Sicily, and in various parts of Spain and Portugal, during the Peninsular war, about the same season of the year; and which, I believe, annually appear more or less in all those countries.

It is worthy of remark, that although the fever was very severe, first at the *cordon*, and afterwards within the district, and that although the men became so much debilitated, even after a few days' illness, that only a few of them were again able to resume their military duties, the mortality was not so great as was expected, but, on the contrary, less than I have generally seen in fevers of that kind.

I find, on looking into the report, that on the 9th of July, in the village of Argirades alone, the military detachment, consisting of nineteen men, had eight on the sick-list unfit for any kind of military duty, in a few days after the fever began to make its appearance. The other villages were nearly in the same state.\*

On the 10th of July, I had to notice a sudden death in the camp-district. A man belonging to the police-guard, who had been sent down from the city, had got drunk the night before; and being thirsty after his debauch, drank a large draught of cold water, after which he ran into the sea to bathe himself and wash his shirt. He was suddenly taken ill, with pain in his stomach; and before Mr. Sammut, who was within

\* The range of the thermometer about this time was generally from eighty-four degrees to ninety-three degrees during the day.

about two hundred yards of the place, could reach him, though immediately informed of the matter, he had expired.

The body was examined after death by Mr. Sammut and Dr. De Georgio, when the only appearances it exhibited were those which usually attend a case of apoplexy. The make of the man, too, who had a large head and a short neck, confirmed the opinion that he died of that complaint.

The sickness prevailing among the British troops stationed in the villages, and nearly one-half of them being now quite unfit for military duty, it was thought proper to relieve these detachments by others from Captain Boccachampi's corps of Greek Infantry,\* they being more accustomed to the unhealthy situations and more likely to escape the sickness, which was now become so general among our troops. These detachments were therefore withdrawn on the 11th of July, and concentrated in the healthiest place I could find in the neighbourhood of Perivoli, where I established a temporary hospital for their accommodation until they should be sent up to the city, and I appointed Mr. Muir to the charge.

The duty of the medical officers was at this time very severe, from their being exposed to great fatigue and the hot weather, particularly in the examination of the health of the inhabitants. These inspections were not so frequent as they had formerly been, for by this time we were pretty well satisfied that no plague existed. Yet it was necessary that they should be seen once every day, in order to ascertain what was going on.

The next day after Mr. Muir's appointment to the charge of the temporary hospital, he also was attacked very severely with the fever, and it was some time before he recovered. Several of the other officers were afterwards attacked by it.

\* Captain Boccachampi commanded a corps of Greek Light-infantry, which was of great use in the plague duties. He himself was the military commandant of Lower Lefchimo; and Captain McDonald, of the 35th regiment, had the charge of the military duties in Upper Lefchimo. Both these officers were of essential service in keeping the refractory Greeks in order, as well as in arranging the other military duties throughout the district.

This sickness, however, although severe, did not alarm us, as it was entirely owing to the unhealthy situation of the district and the season of the year, and quite unconnected with plague. If, however, this last disease had again appeared at the same time, I am persuaded that it would have been extremely difficult, or perhaps impossible, in some cases, at least to discriminate between the one and the other. We must then have trusted to the distinguishing appearances of buboes, carbuncles, petechiæ, staggering, the peculiar cast of the countenance, the state of the tongue, &c., all of which were absent in these fevers of which I am speaking.

We had thus, in the district of Lefchimo, a remarkable instance of the cessation of plague, and almost immediately after this, the appearance of the annual fever. Yet so different were the symptoms, that one could hardly mistake the one for the other; and whilst one decided case of plague would have caused very serious uneasiness and apprehension, the sickness over the district (which, however, I was informed was less than it had been in former years) excited no particular anxiety, except on account of the fever itself, knowing as we did that it was owing to local causes, and unconnected with plague contagion. Whatever speculative opinions may be formed, therefore, of bad fevers degenerating into real plague, (which I myself have always doubted, and believe to be utterly impossible,) yet here we have at least one instance to the contrary in the autumnal remittent fever of Lefchimo, where there was as wide a difference between the plague and it as between any two of the most opposite diseases.

## CHAPTER VIII.

Expurgation of the pest-hospital—Urgent necessity, on account of the sickness among the troops, of speedily winding up the plague matters—The quarantine of the convalescents diminished from eighty to fifty days—They are not placed under restraint on their return home, as had been done with the *suspected*—Those who died of the prevailing fever not buried until the bodies were examined—The pest-hospital proved, as the other plague-houses had been—All quarantine restraints removed, and the district of Lefchimo placed in free pratique with the rest of the island—Some troops, and several medical gentlemen left for a short time in the district.

THE hospital having been broken up, and the convalescents and attendants all in camp, where they were now performing their quarantine, it was necessary to finish the whole of the expurgation by destroying all contagious matter contained in that focus of plague. People naturally view with horror a place in which such a dreadful disease has been concentrated in all its violence; and at some periods of plague history, I believe it has not been thought possible so thoroughly to eradicate the contagion as to render such a place again habitable. Yet, in more modern times, we are accustomed to purify a pest-hospital with as much security to the public health, however long it may have been used as such, as any other building in which plague has existed.

A plague-hospital, however, certainly requires more care and minuteness in its purification, and perhaps also more time than ordinary plague-houses. The manner of purifying a plague-hospital is exactly the same in principle as that of any other place wherever plague has existed,—viz., by removing and burning every susceptible article to the very least rag, frequently washing with soap and hot water every part of the woodwork, &c., and afterwards repeatedly white-washing every room, and, in short, every hole and corner of the whole building. After which it is to be repeatedly fumigated and ventilated at proper intervals of six or eight days between each

time; and whilst the fumigations are going on, the rooms are to be kept closely shut up, as well as for several days after. The doors and windows are to be then opened, and the apartments afterwards to be thoroughly ventilated; and this is to be repeated three or four times at least. Quicklime was scattered all over the floors of the hospital in Lefchimo, which were afterwards well washed with hot water, and every corner and every spot most carefully searched, lest any impested things should be concealed; whilst every place immediately within the barriers and about the building was dug up, to ascertain if anything was hid in the earth. As an inducement to the expurgators to exert themselves in this respect, I promised them everything which they might discover worth the retaining. I am not aware that anything was discovered by them; at which I was rather surprised, as I had a strong suspicion that some things of value were hid in or about the building; for it is well known that the attendants on a plague-hospital, in spite of everything which can be said or done, will often be guilty of robbing and appropriating to themselves any valuables which the unfortunate patients may possess, particularly should these happen to die. But if the hospital is kept in the inviolate state which it ought to be, they can have no opportunity of conveying away their things. The only alternative, therefore, which they have left, is to secrete their plunder until they have an opportunity of removing it afterwards; and I have no doubt whatever but that the plague, in some instances, has been brought back by these means. In the instance of the plague-hospital in Lefchimo, I am inclined to believe that neither the patients themselves nor the hospital servants had secreted anything; at least, after the most diligent search, nothing was found; nor was anything discovered in the possession of the hospital attendants when they were subjected to the complete spoglio, previous to their being encamped. The palisading and the other woodwork around the hospital, which, when first erected, were well tarred, were afterwards white-washed before being taken to pieces, and then



plunged into the sea for further purification, lest any contagious matter should have remained about them. They were finally replaced in the stores.

I may here say something of the attendants on a plague-hospital. It is sometimes no easy matter, without having recourse to the severest measures, to control persons of this description. Being often felons, they are from character and principle the most worthless of mankind, who have already felt the heavy hand of stern justice for the crimes which they have committed; and they are often rendered still more depraved by the very scenes to which they are accustomed. They well know that they hold life by a most precarious and uncertain tenure; and that although they happen to be well to-day, they may be numbered with the dead or dying to-morrow. It is no wonder, then, that such men, perhaps naturally profligate and abandoned, should give full scope to evil and wicked propensities, as they are aware that, for the time at least, they are in some degree out of the reach of that punishment which they deserve, unless, indeed, they are shot or hanged like dogs, the very idea of being obliged to do which is dreadful and appalling in the extreme.

The laws of quarantine are necessarily severe; but for the sake of example to others, it will be found to be expedient at times to put them in full force against persons of this description, for ordinary forbearance would be a mistaken clemency, which it were wrong and even dangerous to suffer.

I had, in the plague of Lefchimo, the best reasons for knowing that the excesses which have so frequently disgraced pest establishments, did not take place there; and I have no doubt that this was owing to the excellent arrangements, and the efficient state of the military discipline.

Yet I do not mean to deny that irregularities and shameful conduct did not, on some occasions, take place among the inmates of the pest hospital, which it was impossible entirely to prevent; as for a time at least they know they cannot be

meddled with: and, indeed, if these irregularities had been greater than I afterwards found them to be, I could not have risked the health of other persons in punishing these miscreants; for be it remembered that I could not have again received back those persons whom I had ordered on that duty, without their performing a protracted quarantine as *highly suspected*; and when I read the shocking scenes which occurred during the plagues of Marseilles, Moscow, and in other places, it is pleasant to reflect that, comparatively speaking, we had little or nothing of the kind in Corfu.

The time was now fast approaching when it would become necessary to send home the convalescents to their villages; but preparatory to this, I made another minute inspection of their state of health, which was found to be perfectly good; nor did I observe that any of the sores had again broken out.

This was naturally an anxious period, on account of our not knowing at what precise time a person who had passed through the danger, ceased to be capable of contaminating others by mixing with them; for on this head I am not aware that we have anything certain to guide us, except the old regulation, which directs such persons to perform forty days of *foul quarantine*, and afterwards forty days of *clean quarantine*. But if this rule were adhered to strictly, the first encampment, which had been formed on the 1st of June, could not have been released till the 20th of August; and those encamped subsequently, on the 23rd of June, when the hospital was broken up, must have remained so till the 10th of September.

The urgent necessity, however, which now existed of bringing matters to as speedy a termination as possible, and the impossibility of maintaining the line of the cordon, where the troops were so reduced by sickness that they were unable to occupy it as formerly, without bringing fresh troops down from Corfu, which it was not judged proper to do, rendered it quite indispensable to try the experiment of shortening the usual period of quarantine. In case of its succeeding, it would be an

immense object gained ; if otherwise, we were all at our posts, and ready to apply the proper remedies.

It is to be observed, however, that the danger arising from thus breaking through one of the most firmly established rules of quarantine, was lessened, when we consider that all the sores had been healed for some time previous to the people being placed on their quarantine ; and although they could not be considered as perfectly cut off from the contagion of plague until that period was entered upon, after they had undergone the complete spoglio and purification, yet the risk of contagion remaining in the system may perhaps be considered as diminished every day from the time their sores were perfectly healed.

I was convinced in my own mind that the management of everything had been conducted with as much positive certainty as could well be done, or as the matter could admit of. Yet I was not without apprehensions as to the final result of a plan of operations, which, if crowned with success, would place these matters on a more secure footing than they had hitherto been, and might serve as a lesson for the future in the management of this calamity ; whilst, on the other hand, if it should fail, it would go a great way to show that this terrible enemy was to be combated on different principles.

On the 20th of July, the convalescents first encamped were liberated from camp, and sent to their homes, just fifty days after they had commenced their quarantine in camp, by which a period of thirty days was saved, which, according to the usual mode, must have been performed.

The man with the fistulous bubo, and another belonging to De Rolle's regiment,\* a most miserable object, whose feet and ankles had mortified and ulcerated from the consequences of the malady, were afterwards sent up, with some others, to the lazaretto of Corfu, to which the hospital attendants were also

\* Vide Case X.

removed for a short time, to finish their period of quarantine ; when the free pratique of the whole island was proclaimed on the 27th July. The unfortunate last-mentioned individual, though he recovered from the plague, had become literally one mass of disease. The bones of both his feet and ankles appeared to be carious. His knees and arms were so stiff that he could scarcely move about, or render himself the least assistance in any way ; and his life was quite a burthen to himself, nor was there any hope of his ever getting better, so as to render life even tolerable. He was the only one who suffered permanently from the effects of this most deplorable malady. Being a foreigner, he was afterwards sent home to his own country at the expense of government, when his regiment was disbanded.

Had the convalescents who were sent home been less numerous, or had they belonged only to two or three villages, they would have been placed in quarantine in their houses for a period of fifteen days ; the same as had been done with the *suspected* when they returned ; but being so many, and from not fewer than eleven different villages, dispersed all over the district, this could not be done. To have again placed all these villages under restraint, after the return of their people, and after so long a period of free pratique among themselves, would have dispirited the inhabitants, and rendered them discontented ; and it would have been presumed, at least, that the plague was not yet extinct, but that they were to be again subjected to all the inconveniences and vexations of quarantine, from which they had been for some time so happily relieved. Every one may have some idea of human feelings in a case like this ; but no one can truly know what they really are, without experiencing them, until every possible doubt is removed as to the contagion being entirely destroyed, and that none remains in the bodies of those who have passed through the disease ; and on this point we were as certain as in a case of the kind we could be.

The convalescents were, therefore, on their return, not placed in the same strict observation as that in which the *suspected* had been, for the reasons I have already stated; but they were recommended to keep themselves quiet within their houses, as well as the rest of the families, until the dread and apprehension amongst their townspeople, which naturally still attached to them and their clothes, should wear off. There was no reason to fear that any of *them* would relapse again; and from the length of time they had been in good health, we hoped at least that no contagion remained in their bodies to be communicated to others. As a medium measure, they were given in charge to the primates and deputies of the villages, with injunctions to these to keep them within their houses during this short and last probationary trial of fifteen days, which it was thought proper to make, not only of the state of health of these convalescents, but also of that of the families in which they resided; and during that time the whole were carefully examined by a medical officer, who at times was accompanied by some of the magistrates, and the military officer commanding in the villages. As to myself, I had no apprehension on the score of plague. Yet, in so important a matter as the public health, too much precaution cannot be used, and therefore these measures were carried into execution till the last. If sickness of a dangerous nature had occurred in any of the houses soon after their return, it would have been necessary to shut up such house, and perhaps eventually the whole village, until the nature of the disorder was perfectly ascertained; but during the whole time that this trial was going on, nothing occurred among their families to excite even a suspicion that any plague contagion remained about them. All quarantine restraints were removed on the 28th of July, when the district of Lefehimo was placed in free pratique with the rest of the island.

Having still various duties to perform in the winding up of matters connected with the service, which nobody but myself knew well how to do, I did not return to the city for some short

time after the issue of the general proclamation, which removed all restraints whatever, and the same intercourse all over the island was resumed as if no plague had ever existed.

Some of the soldiers, and also of the inhabitants, had died of the prevailing autumnal fever, and I had established it as a general rule over the whole of the district, that the body should not be interred without being first examined by one or more of the medical officers and native doctors, until the former were sent up to the city; and the case of every individual who fell sick, either of the fever, or of any other indisposition, was carefully watched over from its commencement till its final termination; so that, with the practice which we now had had in plague, and our knowledge of the leading symptoms of that malady, it was not likely that if any case of positive plague had occurred, it would have escaped detection; and, indeed, every death, from whatever cause it might happen, was perfectly known to me, and generally reported at head-quarters. The bodies of such as died of this fever, or of ordinary complaints, were not buried with quick-lime, as those of the plague victims usually were.

However essential it might have been to have attended to all these matters, not only during the ravages of the calamity, but also on the winding up of the service, it nevertheless would have been quite impossible to have attended to all the minutiae in that strict manner which they required, unless there had been a sufficient number of intelligent medical gentlemen to execute these various duties. Hence the necessity of having a sufficient number of such, without which a service of this kind cannot be properly executed.

The lazaretto, or pest-hospital, having now been well expurgated, purified, and carefully examined by myself, in order to ascertain that it was so, it became necessary here, more than on any other occasion, that it should be occupied and proved, as all the other houses and places had already been.

This hospital had formerly been a kind of magazine, and

was likely to be used again as such. As an hospital, it was by no means a convenient one in some respects; but being the only tolerable accommodation which the place afforded, and the situation quite unexceptionable, it was employed as such, for want of a better.

The obtaining proper persons to prove this building was our next object. The expurgators, who had had the plague either in Malta two years before, or those who had had it that season in Lefchimo, were obviously not proper persons for this proof, because, from their having previously passed through the disease at these periods, they must be considered as in a manner unsusceptible of being contaminated by the plague contagion, if any remained in the place; and it was extremely probable that if I had asked any of the inhabitants to hire themselves for this purpose who had never had the plague, and who were now enjoying their liberty, that one and all of them would have refused even to enter a place which they could not view without a degree of dread and horror. I might have told them that I myself had entered it, and examined every part of it minutely; that from my personal inspection, it was perfectly well expurgated and thoroughly ventilated. I might, indeed, have added, that my belief was (having made the experiment on my own person) that no real danger existed of contracting the plague by occupying it; still, however, I apprehend that it would have been impossible for me to have done away with the impression on the people's minds, that by thus occupying it, they would have been again impested, nor did I think that any reasoning with them on the subject would have been sufficient to remove the prejudices entertained by them respecting it.

I had still in reserve for the performance of this duty a party of expurgators, who had arrived from Malta some time before; some of whom I knew to have had the plague there, but some of them, I was informed, had never had any symptoms of that malady. On my examining these men, therefore, and making all the inquiries I could, I found that six of them had never

had the plague; consequently, the party altogether just answered the purpose for which I intended them; for if any plague contagion remained in the hospital now about to be proved, it was more than probable that some of the six would be attacked; but if, on the contrary, all of them continued in good health during this ordeal, I should have a strong presumptive proof that all was right, and that no plague contagion whatever remained in it. These men, therefore, who volunteered their services, and, indeed, were receiving a dollar a-day by their agreement, until they returned to Malta, were placed in the lazaretto on the 10th of July, so as to have the proof over on the 27th, when it was contemplated that all quarantine restraints whatever between the district of Lefchimo and the rest of the island were to be removed. During all this time, the party was, of course, subjected to the same medical examinations to which all those who had performed the like proofs in the houses had already been, and nothing like plague appeared among them.

It was in this instance highly proper to employ the same persons in proving the hospital who had expurgated it; for if anything had afterwards broken out, it must have been owing to the imperfect manner in which that operation had been executed, and it was right that they should be the first to suffer from the effects of their own negligence. Yet, from my own particular examination of the whole, I was perfectly convinced in my own mind, that no real danger was to be apprehended. These men were therefore taken from the encampment to which they had been sent when the hospital was broken up; previous to which circumstance, it will be remembered that they had undergone the complete *spoglio*; and on their quitting the lazaretto, after the performance of this proof, they, like all the others, were well washed, fresh clothes were given to them, their old apparel having been all destroyed; nor were they allowed to take anything with them besides their clean body clothes when they afterwards quitted the district, to finish the remainder of their quarantine in the lazaretto at Corfu.



The embarkation of the sick at the cordon formed no part of my duty, and was conducted under the directions of Mr. Porteous, deputy inspector of hospitals, the senior medical officer in the Greek Islands.

On the 26th of July, I received my last official letter from Major-General Phillips, enclosing a copy of the proclamation announcing that free pratique was declared between the district of Lefchimo *and the rest of the island*, and was to take place on the following day. On this day, the Major-General called at Egrippos, on his way to England, when he sent me an invitation to come on board his ship, then under weigh, to receive free pratique in person.\*

It may be supposed that I lost no time in announcing these joyful tidings to all the district, or in distributing copies of the proclamation issued by government for that purpose, and which was happily to relieve every one concerned from a most harassing and trying duty, and myself from a load of care and anxiety, which it were difficult to describe, and also from personal fatigues, which had they continued much longer, I felt myself unable to have supported.

At the time the free pratique was thus proclaimed, some of the convalescents last encamped, particularly the man with the open bubo, and the miserable object belonging to De Rolle's regiment, from their sores not being as yet quite healed, might not be considered to be altogether safe from the possibility of contaminating other healthy persons, should they be allowed to mix with such. Neither these, however, nor the expurgators, whom I have mentioned as not having accomplished their quarantine, prevented the pratique from being carried into effect; boats having been sent down for these different classes, who were removed without their interfering with one another, to the lazaretto at Corfu, to finish it there; after which, they also were liberated.

I have thus given a detailed account of the plague of Lef-

See Note F, Appendix.

chimo, from its first breaking out till its final suppression on the 6th of May, when the last plague accident occurred in the villages, and also of the police management during the whole proceedings, from its introduction till free pratique was proclaimed on the 27th of July following; when all restraints between the lately impested district of Lefchimo and the rest of the island were entirely removed.

The plan of management adopted on the occasion was not perhaps altogether novel at the time; and it has since been carried into effect with the same evident advantages in Cephalonia. It will also be observed, throughout this detail, that the malady was all along considered as depending on contagion alone. Acting on that principle, the system was arranged, and the various combinations were formed, which so promptly arrested in its desolating progress and so speedily extinguished one of the direst of all human calamities.

I have as much as possible avoided speculative opinions respecting this malady, confining myself to the doctrine of contagion alone; a doctrine very generally received, and of which I myself entertain no doubt; notwithstanding that there may be some circumstances opposed to its adoption, which are perhaps difficult to be explained away. Following up the opinion, therefore, that the plague depends on contagion, or contact in some way or other, and that it is propagated by that means, I have strengthened the doctrine with some important facts. Indeed, the whole of our proceedings in Lefchimo fully illustrate, and, I may say, quite demonstrate this point.

From the scrupulous attention paid to all the various duties, (for nothing was left to chance,) I myself felt as confident of the perfect security of the island as in any aggravated case of the kind it could well be. But when we reflect on the extent of the concealment of the effects of the people, which, whether impested or not, it was impossible to ascertain, and the uncertainty of knowing positively whether everything had yet been discovered, I was not without some apprehensions on

that score, even when general free pratique was proclaimed. But I should not have been warranted on that account in recommending a continuance of the quarantine restrictions, for such would have caused the utmost dismay and alarm, not only within the island itself, but it would have also affected the commercial intercourse with other places.

Yet, although the possibility of concealed contagion still threw a certain shade of doubt on our proceedings, (and indeed, this was the only doubt that now remained,) the various considerations already mentioned, rendered it indispensably necessary to bring matters to a final close in the manner now done. But in order to check speedily any evil that might unfortunately start up, the Major-General, in his letter of the 23rd of July, acquainted me that it was the intention, on withdrawing the British troops from Lefchimo, to leave a certain number of the Greek infantry there, under the command of Captain Boccachiampi, to watch over the public health, and also to keep order among the people. Assistant-Surgeon Alexander was also detained there for a short time, to reside at the head-quarters of the district, whilst other three Greek medical men were stationed, one at Clomo, another at St. Theodoro, and a third at Perivoli, to act under his orders, and report all occurrences. He was only a very few days in his new appointment before he also was seized with the prevailing fever, and was obliged to be removed.

One of the commissariat department, with the necessary establishment, was also left, for the purpose of provisioning the troops whilst they remained in the district, and also to supply the poor people for a fortnight after the free pratique was proclaimed, after which it was expected that they would be able to provide for themselves.

Of the tents which had been used, part had been sent to Cephalonia for the plague service there, and part was left standing for a few days longer, for further purification. Those occupied

by the troops being perfectly free from plague, were taken along with them, and placed in the stores. The rest were afterwards sent up to Corfu. Part of them were nearly worn out, and were therefore burnt on the spot; but such as were serviceable, after being still further purified, were placed in the stores.

## PART V.

### ON THE CURE OF THE PLAGUE.

#### CHAPTER I.

Bleeding—Cold bathing—Diaphoretics—Emetics—Purgatives—Cordials—  
Opium—Saline mixtures—Æther—Camphor—Mercury—Blisters—Poul-  
tices—Bark.

AMONG the whole class of diseases with which it has pleased Almighty God to afflict mankind, there is, perhaps, none so little understood in its mode of cure as that of which we have been speaking. Most other classes of diseases assume a fixed form, from which they only occasionally stray. Some organs are almost always affected in preference to others. Most other diseases, comparatively speaking, are slow in their progress, and fixed and determined in their symptoms, as well as in their mode of treatment. Thus, in *pneumonia*, we find pain in some part of the thorax, attended with more or less cough, and difficulty of breathing, with accompanying physical signs. We bleed and purge, and determine to the surface, and go through the usual plan of medical treatment, until the symptoms are moderated; and in cases of this complaint, if it has been taken in time and properly managed, we, generally speaking, succeed in curing our patients.

In complaints of an inflammatory nature, we generally have recourse to the lancet and other means of depletion, in the first

instance, and if the proper remedies are timely applied, a large proportion of such complaints are cured.

In cases of common fever, unaccompanied with inflammatory action, which form a considerable proportion of the diseases of mankind, we very frequently succeed in relieving our patients; and, finally, we carry them through perhaps a tedious disease, whilst in other fevers, more rapid in their progress, and more violent in their symptoms, we often cut short a disease extremely alarming in its commencement.

In the plague, however, it is different. Here the symptoms are so varied, and so many organs are implicated, such singular and sudden derangement takes place in the whole animal economy, that it may be termed (as I have already denominated it) a disease *sui generis*, participating, in some respects, in the character of all other diseases, yet perhaps essentially differing from them all; and these strong traits in its character we see in the manner of its first introduction into any place, in that of its extension afterwards, in the unusual violence and rapidity of its symptoms, in a great proportion of cases at least, and in its determined resistance to any mode of treatment which has been hitherto recommended. Of this, the mortality which has always attended it, and the paucity of recoveries from it, which have, even under the most approved plan of cure, seldom exceeded one in seven or eight, are, I regret to say, but too certain proofs.\*

\* Mr. Tully, in his book, page 103, makes the recoveries from the plague in Lefchimo bear a proportion to the deaths of 1 to 4; but as I have every reason to believe that no regular returns were kept during the time he was in charge, I am bound to consider his to be an arbitrary calculation, and I think one at variance with the deaths in all plagues, taken as a whole. My own return, from the circumstances so often alluded to, may not perhaps be strictly correct, but I formed it after a minute and tedious inquiry into the subject. If Mr. Tully had had any correct returns in his possession relative to the number of persons attacked by plague, the deaths, &c., he ought to have handed copies of them over to me for my guidance, when he was superseded in his charge by the orders of his Excellency Sir Thomas Maitland; but I had no information that could bear him or myself out in this calculation. I am therefore of

The rapid progression in the symptoms of plague, from the first appearance till death closes the scene, is truly remarkable. They are so little capable of being controlled by the medical art, and proceed towards a fatal termination with such rapid strides, and with such determined and unrelenting severity, that the physician becomes appalled; for, on reasoning from analogy with other diseases, he finds himself disappointed both in the prognosis and in the curative indications; indeed, so much is this the case, that he can hardly draw a comparison as to the final results betwixt plague and other diseases, from a similarity in the symptoms.

It is not to be doubted that fevers of a very malignant type have occasionally made their appearance in several places, and have been peculiarly rapid in their progress, and that in their treatment the medical practitioner has been exceedingly embarrassed; as, for example, the fever which prevailed in Leghorn in 1804, that which has prevailed more than once on the coast of Spain, that which appeared in Gibraltar, &c. All these were violent diseases, difficult to be managed, and very fatal; yet these are uncommon cases compared with ordinary fevers, and perhaps form exceptions to the general run of such.

The plague, however, is uniformly violent in the train of its symptoms at its first breaking out, and has always been a rapid and fatal disease, from everything that we have heard or seen of it, wherever it has appeared; for the exceptions to the contrary do not detract from this general character, which it is allowed by all to possess. And although cases of plague do occur

opinion that, in the calculation he makes, many persons admitted as cases of *positive plague* were only *supposed cases*, which were afterwards dismissed as cured of plague and sent to their homes, when, in point of fact, they never had the plague. This fact will at once explain the error he has fallen into, and is the only solution that can be given.

The statement I give in page 187 is perfectly correct, with the exception that, in the class "in the lazaretto, sick and recovering," several persons are there included as convalescents which never had been cases of plague, and which ought not to have been placed there.

occasionally which are so slight as scarcely to incapacitate the persons attacked from the performance of their usual employments, while others linger for a considerable time betwixt life and death, and finally get over the complaint at last; yet these are rare cases, and can hardly be said to form exceptions to the character which I have said it possesses.

Not only is plague a violent disease, which rapidly goes on to a fatal termination, but, unfortunately, it is so little under the control of medicine, that we can seldom be said to alleviate the symptoms; and certainly it has hitherto baffled every method of cure which has been recommended, notwithstanding that many have recovered, and that the recoveries have been attributed to a particular mode of treatment.

How, when it has once got into a family, it should continue its deadly strides without interruption from one person to another, until the whole family becomes extinct; and when it has appeared in another, perhaps equally numerous, how it should only fix on one victim, all the rest escaping, who have been in the closest communication with the sick, we have no means of explaining in a satisfactory manner, without adopting the *hypothesis of peculiarity of constitution*, or of their being *insusceptible* at the time, and thus able to resist its attack. This, however, does not occur in plague alone, but also in other complaints.

From my own experience, and from everything which I have heard or read on the subject, I believe the plague to be a disease less under the control of medical treatment than any other with which we are acquainted; and I am afraid that some medical practitioners have taken to themselves more merit in the cure of this disorder than they were fairly entitled to, and have given themselves credit for what nature alone has effected. Yet I would not be understood to say that we are therefore to give up plague cases as lost and hopeless, and to trust everything to the powers of nature. I by no means think so, being fully persuaded that by proper and judicious treatment much is to be achieved.



And although in the overwhelming cases which so often occur, and which run to a fatal termination with such awful rapidity, which nothing we know of can arrest, the patient being carried off before any medicines can have effect, yet happily this is not always the case ; and in the milder cases much is to be done by the judicious practitioner.

Without entering into any discussion on the merits of the plan of treatment recommended by a late writer on epidemic diseases, and which, if not carried into effect precisely in the same manner as has been recommended by him, has been tried by others, *and found wanting* ; yet I fear I am warranted in asserting that hitherto the plague stands one of the *opprobria medicinæ* ; and that we are not in possession either of any *specific* for its cure, or of any *prophylactic* for its prevention, beyond that of *non-communication*.

I have no doubt that part of the mortality incident to plague hospitals, particularly in European countries, may be attributed in a certain degree to neglect, not of medical treatment, but of the ordinary attentions which sick persons necessarily require. This is, indeed, much to be lamented, but very difficult, if not quite impossible, to be altogether remedied. No medical practitioner, however respectable he may be for his talents and humanity, can do everything himself ; and the servants under his orders, whom he is forced to have, are often of the very worst possible character, and will not always bestow that care and attention on his patients which they may require, or which he knows would in other complaints be performed without any reluctance whatever. In other hospitals, a nurse or orderly attends the patients with assiduous care and anxious kindness, because these know such to be their duty, and because they know also that their character will suffer from neglecting their patients, or perhaps the dread of punishment or self-interest stimulates them to execute their orders with precision. In private life, love and affectionate regard soothe the distresses of the bed-side of the suffering individuals. But such feelings, I am afraid,

seldom actuate the attendants on a pest hospital, where death makes such awful strides, where everything around is full of horror, so as to supersede all other feelings; where the attendants are often felons, and where even the greatest kindness and humanity, though exerted, can often be of no avail.

With these preliminary remarks, which I think it necessary to introduce here, I come to the treatment of this disease as adopted in the plague of Lefchimo. And here I have to regret that no fixed plan seems to have been determined upon, and to have had a fair trial given it by the different medical gentlemen who were in the immediate charge of the pest patients, at the first ebullition, when the disease was most violent, and the mortality the greatest.

In a disease such as plague, which has hitherto resisted the ordinary rules of medical art, some decided plan of cure should be adopted, and have a fair trial; when, even if it should be unsuccessful, we gain at least information by its very failure, and it may serve for a beacon to guard us against following a similar practice in future; whilst, if successful, a road is made for us to follow hereafter.

It will, perhaps, be alleged that in a disease so variable, and accompanied by such a diversity of symptoms, as we find described by authors, no fixed plan of treatment can be well laid down. This is, perhaps, doubtful; for although plague may be modified by circumstances, yet I conceive it to be essentially the same disease wherever and whenever it makes its appearance.

I am not, however, prepared, from my own experience, to say what plan of treatment ought to be pursued. Yet whatever that may be, it must be of an active nature, so as to have as immediate an effect on the constitution of the patient as possible, and thus counteract and arrest the violent train of symptoms with which the disease is ushered in; for unless this desirable end can be effected, and that very speedily, the great probability is that the patient will be carried off. I do not

imagine, however, that in some of the violent cases any practice, however active or judicious, will be availing; as, for example, in such patients as become suddenly ill, and continuing rapidly to become worse, are carried off in a day or two from the time they began to complain, perhaps in a few hours. Indeed, in such cases as these, I question whether anything can be done, or any kind of treatment could possibly save the patient.

On the hypothesis of the dependence of plague on plethora, followed by congestion and high inflammatory action, depletion by the lancet has been strongly recommended, and in some cases carried as far as it could well be done, not only without benefit in arresting the progress of the disease, but, I am afraid, in some instances at least, in hastening the fatal termination.

That the plague depends on plethora was the opinion of the late Dr. Whyte, who, when he was permitted, at his own solicitation, to enter our pest-hospital at El Hamet, in Egypt, to exert his skill in curing this baffling and intractable disease, commenced his practice by bleeding indiscriminately all the patients in the hospital, to the number of sixteen, exclusive of Mr. Price, the principal medical officer there, who was at the time ill of plague, but who would not submit to have that operation performed upon himself.

On the day following—viz., on the 3rd of January—he again repeated the venesection on four of the patients, and very copiously. The patients who had been bled the evening before, as well as those who were bled next morning, became evidently worse towards the evening of the same day. He gave a dose of rhubarb and senna to each. The same night he repeated the venesection on three of the four patients whom he had bled in the morning, when two of them died during the operation, and the third about an hour after.\*

On the 6th, Mr. Rice, hospital-assistant, now surgeon to the forces, and a Mr. Grisdale, assistant-surgeon in the service of

\* I have no note of the particular medical treatment of these cases.

the Honourable East India Company, were ordered to do duty in that hospital, and by this time the remaining thirteen patients above mentioned had died.

These particulars, and also a detailed account of Dr. Whyte's own case, were furnished me by Mr. Rice, some short time after he was relieved from the plague duty, and I inserted them in my journal, which I kept at the time I was in Egypt. The doctor's case I do not think it necessary to repeat here, as it has been already noticed by Sir James McGrigor, in his "Medical Sketches."

Here we have proof, as far as this instance goes, of the failure of the plan of depletion by the lancet in plague; and if sudden and copious bleeding had been sufficient to arrest the disease among the doctor's patients, the greater part, if not the whole, of whom were natives of India, I think it is reasonable to suppose that some benefit at least would have been experienced here. This, however, did not appear to be the fact.

Yet, perhaps, the indiscriminate use of the lancet in all these cases was not judicious, even allowing the theory to be just; and without having any idea of reflecting on the theory or practice of Dr. Whyte, granting that the latter was exactly such as related to me by Mr. Rice, which I have no reason to doubt, I apprehend, that although it might have been right and proper in some of the cases to deplete largely, yet I think it not likely that all of the cases required to be bled—as, for example, if any of them had buboes going on favourably towards suppuration; for it is reasonable to suppose, although I am not fully acquainted with the particulars of the cases, that they could not have been all precisely in the same state nor of the same intensity, but that, on the contrary, although all were plague cases, yet were they in different stages of the malady, and consequently required in some degree a different mode of treatment, and what may have been considered to be sound practice in one case, might have been prejudicial in another. The hypothesis, therefore, however correct, was not equally

applicable to all stages of the disease; for we know well that even in complaints avowedly caused by plethora, the patients will not in all the stages of the disease bear equally well the abstraction of blood nor other debilitating treatment, as they would have done at the beginning. Thus, in some fevers of high inflammatory action, the patient at the beginning will bear the abstraction of blood and active purgative medicines not only without his strength thereby suffering, but with decided advantage in the complaint, whilst the same mode of treatment in an after period of the disease would not be admissible.

It has been mentioned to me, that in the plague of Lefchimo, Dr. Piccoli frequently used the lancet, but not with success, and he afterwards abandoned that practice.\* Captain Currupi, of the Ionian Greek Infantry, was bled, but without benefit, and he died the third day.

With regard to the propriety or impropriety of venesection in plague, I have nothing to say from experience, having never tried that practice; but my opinion is, although I do not mean to deny that cases may occur in which bleeding may be proper, yet that such cases are not frequent, and that, generally speaking, it is not admissible. It has been found, that in cases where from the state of the pulse and the other symptoms it was thought necessary to abstract blood, even a small bleeding, which in other complaints would have had little or no effect, has caused in the plague so much debility, that the patient sank from that hour.†

Dr. De Georgio was at one time in the practice of bleeding in the plague of Lefchimo, but he afterwards gave it up. He remarks, in his report to me: "Osservai che l'emissione di sangue

\* I regret that I am obliged to speak only from hearsay report of Dr. Piccoli's practice in the plague, and not from written documents.

† Dr. Hodges, speaking of the effects of bleeding in the plague of London, says: "I will not, however, deny but that there may possibly be circumstances in malignant and pestilential fevers which may justify phlebotomy, as when it is done for revulsion sake, as in too great a flux of the menses; but in genuine pestilence it is not to be meddled with. There is but one, as I can remember, who survived it in the late sickness."—Hodges' *Loimologiae*, p. 157.

e stata mortale per gli appestati. Il sangue non coagula. La ragione e evidente, esistendo una totale dissoluzione di umori, il sangue non puo mai coagulare." This very circumstance, the dissolved state of the blood, which has been noticed by so many authors, and is therefore not to be doubted, convinces me that the practice generally is not to be adopted with impunity; and I am still further confirmed in this opinion when I consider that natural hæmorrhages, from whatever part they come, are seldom beneficial, but, on the contrary, are very often the forerunners of death. In the plague, therefore, hæmorrhage is not to be considered as a salutary effort of nature, as we observe it to be on other occasions, but as a proof, and a sad one, of the failure of the powers of nature, and, I had almost said, an unerring symptom of approaching dissolution.

The hospital in the camp district being situated on the edge of the sea, afforded us the best means for the trial of sea-bathing in this complaint, particularly at its commencement. In a variety of cases it was adopted; in some of them with evident good effects, more especially in those cases where there was a high degree of action, attended with delirium and affection of the head. It was wonderful, on those occasions, to remark the sudden alteration which sometimes took place. From a state of almost frenzy, the patient became on a sudden calm and tranquil after immersion in the sea. On a return of the paroxysm, the immersion was again had recourse to, and with the same relief. Some of the patients, in a state of furious delirium, escaped from the hospital, which was open only on the sea-side, and threw themselves into the sea, from which they were taken out more tranquil. In one patient, the paroxysm came on with furious delirium approaching to madness. He was frequently taken out and bathed in the sea, which always had the effect of rendering him more calm and composed. This poor man, however, was carried off in one of these dreadful paroxysms, the recurrence of which could not by any means be prevented.

Cold bathing I consider, therefore, an useful auxiliary to

other remedies in the cure of this disease; and several of those who recovered had been subjected to this plan; but I must also state that many of those died on whom it was tried. Perhaps the indiscriminate use of the cold bath is improper; and I give it as an opinion that it ought to be confined to cases of high febrile action, with heat of skin; but where a contrary state exists, attended with stupor, shivering, and other symptoms, indicating great debility, I conceive it would do harm, as I have reason to believe has happened on some occasions.

I have mentioned dryness of the skin as symptomatic of plague; and this I remember was particularly remarkable among my patients in Egypt; and there it was so very obstinate, that I could not succeed in removing it by any sudorific which I employed. Indeed, my opinion at that time was, that if I could have but produced a free perspiration, I should have succeeded in curing the disease. Although this dryness of the skin is not an uncommon symptom in plague, I apprehend it was more common than usual there, from the naturally dry state of the skin among the inhabitants of India in the cold weather which prevailed at that season of the year, and which they seemed to feel very severely, so that their skins were dry like parchment.

I could not learn that the warm bath was used at any period in the plague of Lefchimo; but various diaphoretics were used, which in many cases had the effect of bringing on a free perspiration. In some of the cases, this appeared to be of service, but it was not attended with that benefit which I had formerly expected, or which we are accustomed to expect in other complaints; for many of the patients were carried off in these violent paroxysms after a very profuse perspiration had come on. Yet a moist surface was considered to be favourable, and was common among those who recovered.

The medicines of this class which were chiefly used were the pulvis antimonialis, the pulv. ipecacuanæ comp., Dr. James's powder, the vinum antimonii, spiritus mindireri, and various decoctions and drinks which the medical gentlemen

were in the habit of using in their practice in the country. Sometimes opium was combined with these sudorifics, and sometimes they were given alone. Often the James's powder or the pulvis antimonialis was given, with small doses of calomel.

In the irritable state of the stomach, so common in plague, the exhibition of antimonials was inadmissible, from the violent degree of vomiting which they are apt to produce. And even in the less irritable states they required to be given with caution, and combined with opium. They were also, when the bowels were confined, given mixed with calomel. The pulvis ipecacuanhæ compositus seemed to sit better on the stomach, but in general its operation was less certain than that of the antimonials. Yet even these last not unfrequently failed in producing free perspiration, although administered with all due care; and in those cases the patient was carried off with the skin remaining obstinately hot and dry from the beginning. It is here to be remarked, however, that although it is desirable to produce diaphoresis, yet at times, after very violent paroxysms, the skin was left in a clammy, moist state, which not only was not beneficial, but was a forerunner of death.\*

It is, notwithstanding, proper to observe that in a pest hospital it is next to an impossibility, from the negligence and carelessness of servants, to keep up the perspiration after it has once been induced which the case requires, and from which alone benefit is to be expected; nor can the medical attendant, however able he may be, as well as anxious for the recovery of his

\* On this subject, Dr. Russell remarks, page 157: "The mild sudorifics exhibited in the manner above described every five or six hours very often produced no perceptible increase of perspiration. At other times, a sweat was observed to follow; but as natural sweats were at certain periods incident to the disease, the sweat was not rashly to be considered as always produced by the medicine that had been given. Where the natural disposition happened to coincide with the operation of the sudorifics, they no doubt might assist; where that predisposition was absent, they were not of power sufficient to cause a diaphoresis."



patient, be supposed to attend to everything himself in person ; and he must therefore trust at times to those under him. This is an evil to be deeply deplored, but for which, though as much to be guarded against as possible, there is probably no effectual remedy. Servants may at times be found to perform certain offices, but there are many acts of real kindness and attention towards the sick that must be voluntary, and cannot be compelled. There is often, too, a dread of contracting the disorder among attendants in a plague hospital, by the performance of duties, when they themselves have not passed through the disease, and which, under other circumstances, they would not hesitate to do. This is particularly the case with Europeans, and which the true Mussulmen repel with indignation. It was this, no doubt, which induced Dr. Assalini to say —“ If I were doomed to be attacked by the plague, I would by far prefer being in the hands of the Turks than in those of the Europeans.”\*

From the often irritable state of the stomach, emetics were not in general used ; nor, indeed, could they well be administered with much prospect of benefit where vomiting formed a prominent symptom of this complaint. In these cases, the great desideratum was to allay this distressing symptom, which not unfrequently continued to the last, in spite of everything that could be done to restrain it.

Emetics were, however, given when there was loathing and a sensation of fulness of the stomach ; and they often relieved the intolerable headach. Tartar emetic was employed by Mr. Saisset even when severe vomiting was one of the symptoms.† They frequently had full effect in evacuating the contents of the stomach ; but I am not aware that in any one case the symptoms were cut short in the way we occasionally see done when they are given in cases of fever.

Various purgative medicines, such as salts, compound extract

\* Assalini's Observations on the Plague, page 89.

† See Mr. Saisset's Cases, I., II., III., V., IX., X., XI.

of colocynth, rhubarb, oleum ricini, were employed to empty the bowels; and they had that effect without seeming to be productive of any permanent benefit, although they often relieved the distressing headach. If purgatives were persevered in, they debilitated the patients, and produced a diarrhœa, which was generally fatal. Indeed, diarrhœa, from whatever cause, was almost always unfavourable. Costiveness, unless removed by medicine, was not unfrequent throughout the disease, but I do not know that it was an unfavourable symptom, and when removed by aperient medicines, the general train of symptoms could scarcely be said to be relieved thereby.

Cordials, laudanum, and saline mixtures, æther, and other stimulants were given to allay the irritable state of the stomach. Pure opium was also given with that intention, and to procure sleep, but it seldom had the effect of quieting the disturbed state of the sensorium, which seems to be materially concerned. In order to counteract the great debility, wine was frequently given, sometimes with and sometimes without opium.

In the plague of Egypt, I was of opinion that if I could keep my patients under the influence of wine and opium for some time, I might be able to control the disease. But after a fair trial in several cases, all of whom died, I gave up that practice. Mr. Adrian, one of the British medical officers in Egypt, was also of that opinion, and tried it, but was equally unsuccessful, and also abandoned it.

Camphor was also given, and, it was thought, sometimes with advantage.

Calomel was frequently given by itself, and also combined with purgatives. Other preparations of mercury were also used; but, I apprehend, they were not given with regularity, and in a continued form proportioned to the intensity of the disease, so as quickly to affect the system; for I am persuaded that whatever medicines or mode of treatment may be found hereafter to be successful in the cure of this disease must be such as are capable of quickly affecting the constitution; for unless this can be done, and that speedily, so as that the violence

of the disease is counteracted with all possible expedition, a great proportion of the patients will be soon carried off; so rapidly does plague run its course, and the patient dies.

Mercury has for a long time been a favourite remedy in the plague, and I have no doubt is one of the best medicines which can be employed. But I fear it has not always been given in the proper manner, so as quickly to affect the constitution; and in most cases it must be given internally, in preference to the ointment, (indeed, some cases may require it to be exhibited both ways,) as a great proportion of the patients are unequal to the task of rubbing it in properly, being either too weak or incapable from other symptoms of doing so; and we cannot trust this duty to the hospital servants, for it is not very likely that even the best of them would be willing to rub in mercury for a plague patient in the proper manner required. We know even in private life how very reluctant some servants are to perform such an operation, with bladder or oil-skin gloves, and how imperfectly and carelessly it is done even when strong inducements are held out for performing it. We have therefore much stronger reason to suspect that it will not be properly done on occasions like those I am speaking of.

It is on this account, therefore, that when mercury is used, it ought to be exhibited in that form which is the least troublesome, and likeliest to have the most immediate effect. When, however, cases occur in which the head is clear, and the strength but little impaired, the patient himself should use the ointment, which in some respects is perhaps better than any other preparation of that mineral.

Mercury was employed in the cure of the plague in Egypt, and was thought to be of service. I tried it also, but the result of my experience does not enable me to say much in its favour, as most of the cases died before I could affect the mouth, consequently, I do not think it had a fair trial with me. But Sir James McGrigor, then chief medical officer of the Indian army, to whom the plague reports of that army were sent, speaks

highly of it, and gives a variety of cases in which it was used with advantage.

Dr. McLean, in his elaborate work on Epidemic Diseases, vol. ii. chap. 48, speaking of the cure of plague, and conceiving it to be a disease of the circulating system, and an affection of the brain and nerves, recommends the use of calomel and opium.

He says, in page 461—"For the most ordinary combination, then, and supposing it a mean affection, I would prescribe six grains of calomel and two grains of opium every two hours, day and night, until the disease was overcome, which I should expect to happen, under a due regularity in the administration of the remedies, within forty-eight hours, if the treatment was commenced on the first or second day of the attack." And in the following pages he says—"In the more severe pestilences, supposing the relative degrees of the affections of the different systems or organs to observe the usual proportions, it will, of course, be necessary proportionally to increase the force of each of the agents employed beyond what was adapted to the mean degree of the disease; as, for instance, seven grains and a half of calomel and two grains and a half of opium, nine grains of calomel and three grains of opium, twelve grains of calomel and four of opium, for the three next higher degrees."

"On the other hand, in those degrees of pestilence below the mean state, the relative intensity of the affections of the different organs not varying, the quantities may be reduced to five, four, three, two, and even one grain of the former agent and one and two-thirds, one and one-third, one, two-thirds, and one-third of a grain of the latter, for the five next inferior degrees."

In addition to the calomel and opium, he recommends ambulating blisters, and the bowels to be kept open by enemata of castor oil and salts, and having mastered the disease by these means, he directs the gradual subduction of the remedies employed.

Without taking upon myself to give an opinion on this mode of practice, I apprehend that the system of the human body is not so mechanical, nor the different grades of the disease so distinct as the Doctor would lead us to suppose; for it is not uncommon to observe that persons who had no very extraordinary symptoms at the commencement, have been dead within twenty-four or thirty-six hours from the time they first began to complain.

Happy will it be, however, for posterity if the mode of treatment which he recommends, and which he mentions as so successful in the hospital of the Seven Towers in Constantinople, should be found to be equally, or even nearly so, by those who may hereafter employ it; for if this should be proved by future experience, a disease which has hitherto baffled the skill of the most expert and ablest physicians, and which has excited the researches of medical men in no common degree, will become, comparatively speaking, tractable and innocent. But until it is thus confirmed, no decided opinion as to its merits can be pronounced.

On this subject, I have only further to say, that as all the modes of treatment hitherto adopted have been so extremely unsuccessful, it deserves a fair trial, and had I known of the plan which Dr. McLean recommends at the time I was employed in Corfu, I would have given it a fair trial.\*

Blisters were frequently employed, particularly on the site of the bubo, the formation of which appears to be an effort of nature. When the bubo was hard and indolent, they sometimes seemed to accelerate the process of suppuration; in rare instances, they seemed to repel it. But it is always desirable to bring on suppuration as quickly as possible, and this once effected, it was a favourable symptom, but the contrary when it continued hard and painful, along with the other train of symptoms.

With the view of assisting the efforts of nature in bringing

\* See Dr. McLean on Epidemic and Pestilential Diseases.

the buboes to suppuration, emollient poultices were applied. Mr. Saisset, however, was of opinion that for this purpose they were inferior to blisters.

In some cases, the actual cautery was applied to the bubo; but on account of the excessive pain, and other circumstances, this mode of practice was not long persisted in.

I may here mention that the application of the actual cautery to the venereal bubo is a very common practice among the Sicilian surgeons, and often with good effect in causing it to heal rapidly.

I must here remark, what I believe I have omitted to mention elsewhere, that at first the skin over the pestilential bubo, even when it is of a considerable size, is often not discoloured, and is loose over the diseased gland. It in this respect is very different from the venereal bubo, which, even when small, is early discoloured. When, however, suppuration comes on in the pestilential bubo, it becomes also red and discoloured, which is considered favourable, particularly when along with this the fever begins to decline. This last circumstance I find confirmed by Dr. Russell, in page 115 of his excellent work.

The application of poultices to the buboes was in general use, and when there was any disposition towards a kindly suppuration, they accelerated that event.

Sometimes the buboes burst naturally; at others, they were opened by the lancet as soon as suppuration was established. Afterwards they were dressed as common sores.

Carbuncles were treated in the usual manner. Some of them were very large. I saw the cicatrix of one on a woman's breast which was larger than the palm of my hand.

The pulvis cinchonæ was frequently given with and without wine, but it only seemed to be of service as a tonic, when the violence of the symptoms had passed over.

In the after medical treatment, during the period of convalescence, there was nothing peculiar or differing from what is usually recommended in the recovery from fever.

Sir James McGrigor has mentioned in his "Medical Sketches" that the nitric acid both externally and internally was of service; in the former case, it was used as a warm bath, and in the latter, it was given diluted with water in as large quantities as the patients could be prevailed upon to drink. In some cases, it produced *ptyalism* where mercury had failed. The nitric acid was, however, not employed in the plague of Lefchimo.

## CONCLUSION.

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I HAVE thus given a detailed account of the plague in Lefchimo, which was attended with some circumstances of peculiar difficulty,\* and which could only be encountered by the efficient measures which were adopted; and that these measures were completely successful, the health of Corfu from that time till the present moment sufficiently shows. During my residence in the island for seven months after the general free pratique was declared, nothing like plague made its appearance, nor anything to interrupt the public tranquillity. Once, indeed, about a month after my return from the district, there was a report that the plague had re-appeared, and on that occasion, though suffering from a distressing complaint in my throat, and general bad health, I went down to ascertain what foundation there was for such a report. I found, however, on minute inquiry into the case, that there was no good reason whatever for spreading such a rumour. Having done this, I returned the same evening to Corfu, to make my report to General Smith, then the *locum tenens* of Sir Thomas Maitland. Before leaving the district, I warned the magistrates and people of the place to guard against the promulgation of such cruel and malicious reports, (for in the instance just mentioned, I had ascertained

\* I allude to the length of time that was lost before an efficient police was arranged, and the unhappy system of burning the people's houses.



that the matter originated in some family quarrels,) observing to them, that if such were again spread abroad, the government would feel it indispensably necessary to take serious notice of it.

The perfect state of the public health in Corfu, as far as regards plague, for so long a time from the date of its suppression there, forms a striking contrast with what has been going on along the shores of Barbary for the same period. There, no measures to prevent the extension of the calamity having been adopted, nor any means of expurgation used for future security, as far as my information reaches, the malady has continued for years to make sad ravages along that coast by the intercourse which naturally takes place among the people, careless and ignorant as they are of the benefit of quarantine. I have not lately heard of what may be going on there, but I take it for granted that the consuls residing in those places afford the necessary information to the government. Individual Franks may, from adopting measures of precaution, secure themselves, yet the general effective system which I have narrated is not adopted, as either not known, or, from prejudice and other causes, not carried into effect, nor believed to possess the advantages which I have proved it to have had in the plague of Lefchimo. Individual precautions will secure those who put such in *full force*; yet they can go no further; but, in order that the system may have the proper effect, it must be general, not partial; and the method which I have recommended should be carried on with the most scrupulous exactness in all its branches. The principle of prevention is simple, and easy to be understood; it is nothing more than to avoid all contact with suspected persons or effects; or, in other words, to shun every person or thing which we do not know to be positively free from plague contagion; whilst that of future security depends on the annihilation or purification of whatever is supposed to contain it.

The plague which for years raged along the Barbary shores first excited the public attention about the time that the malady broke out in Corfu, although most probably it existed before that time; and its extension there, from place to place, is nothing uncommon, where no means to check its progress have been adopted; and this remarkable trait in its character has always been the same in all climates and countries wherever the malady has existed down to the present day; whilst, on the other hand, we have seen, particularly on very recent occasions, that by proper management it can be forcibly prevented from extending itself, and finally perfectly extinguished, even under the most aggravated circumstances.

Connected with the late plague duties of Corfu, there were several minor points to settle, which I finished on my return from the district of Lefchimo; among which was the distribution of the money which the government had granted as a compensation for the losses sustained by the individuals whose effects had been burnt when the depôt was destroyed. Although, strictly speaking, my plague duties of every kind ceased on the issue of the last proclamation for general pratique, yet at the request of the President of the Senate, the Baron Theotoky, that I would thus finish the plague service, I immediately acceded to his wishes.

In the plague of Lefchimo, the want of a general return of the casualties anterior to the 7th of March (for it appears that none had existed prior to that time,) prevents me from giving so accurate a statement of the admissions and deaths as I could wish. In the absence, therefore, of such document, (which on every account would have been most desirable, and the want of which gave me much trouble,) I called upon the medical gentlemen who had been in charge of the pest establishments for the most correct returns they were able to afford, specifying the age, the sex, and the eruptive appearances which the cases exhibited, the length of time the patients were ill, and such other

information as they were able to give me. From the villages themselves, also, I gained a pretty correct statement of the number of persons who had died of the calamity, as I have already noticed.

Whatever returns or remarks were made by the late Mr. Tory, assistant-surgeon to the forces, or by Dr. Piccoli and his son, two native medical gentlemen, all of whom died early in the calamity, were either lost or destroyed; at least, I could never gain any information respecting them.

It was fortunate, however, that in the want of a general statement, the other medical gentlemen in charge of hospitals—viz., Mr. Sammut, Dr. De Georgio, and Mr. Saisset, had kept statements of the casualties in their respective hospitals, which in some degree made up for this deficiency. From Mr. Sammut, I received a nominal list of the ages, &c., of 147 patients belonging to the five impested villages of the Lower Lefchimo, who had been admitted into his hospital at St. Theodoro, of whom 132 died, and 15 recovered. Of those who died, 89, it appears, belonged to St. Theodoro, and of those who recovered, only 7. This list comprehends the period from the 28th of January, when that hospital was first established there, till the 24th of March, when it was broken up, and the whole transferred to the camp-district. The following are abstracts from this return, showing the eruptions which the cases exhibited. It will be seen that the deaths here are nearly nine in ten, which is greatly at variance with Mr. Tully's statement in his book.

*Died.*

Class 1. Simple bubo in the groin . . . . .	62
„ 2. Bubo ditto with petechiæ . . . . .	9
„ 3. Ditto and in the axilla . . . . .	3
„ 4. Simple bubo in the axilla . . . . .	16
„ 5. Bubo in the axilla, with petechiæ . . . . .	2
„ 6. Bubo in the glands about the neck . . . . .	3
„ 7. Ditto with petechiæ . . . . .	1
„ 8. Simple carbuncles . . . . .	11

Class 9. Carbuncles with petechiæ . . . . .	1
„ 10. Simple petechiæ . . . . .	15
„ 11. Anomalous cases . . . . .	9
	<hr/>
Total . . . . .	132

Of the Class No. 1, seventeen had buboes in both groins, and two of Class No. 2.

The following is a statement of the duration of the disease:—

Died on or before the fifth day after admission into the hospital	104
„ between the sixth and the ninth day . . . . .	23
„ on the tenth day . . . . .	1
„ on the fifteenth day . . . . .	1
„ on the twenty-fifth day . . . . .	1
„ on the twenty-eighth day . . . . .	1
„ on the fiftieth day . . . . .	1
	<hr/>
Total . . . . .	132

The person who survived to the fiftieth day was a weakly girl, only ten years old, who had three buboes and two carbuncles, and who, after lingering for so long a period, sunk at last under the consequences of the disease.

As to the fifteen who recovered, the following is a statement of the external appearances which accompanied their cases:—

Simple bubo in the axilla . . . . .	2
In the groin (one had one in each groin) . . . . .	11
Carbuncle . . . . .	1
Carbuncle with bubo in the groin . . . . .	1
	<hr/>
Total. . . . .	15

On the 7th of March, the period at which the regular daily returns in my possession commence, it appears that the number then infected amounted to 77; and from that time till the 18th of May, when the last case of plague occurred, the admissions amounted to 146, making in all, 223. Of these, there died, till the 19th of May, the date of the last plague death, 136, leaving 87 recoveries from plague, which accords with the number I have mentioned when speaking of encamping the convalescents, and including the supposed cases of plague.

Dr. De Georgio furnished me with a nominal return of the ages, external eruptions, &c., of 167 patients who died in the hospital of Santa Trinita, to the charge of which he had been sent on the breaking out of the malady, and in that established afterwards in the camp-district under his care. This return embraces a period from the 13th January, 1816, to the 19th May following, and of course includes the 136 deaths mentioned above.

The abstract from this return is as follows:—

*Died.*

Class 1. Simple buboes in one or both groins . . . . .	59
„ 2. Buboes in the groin, with petechiæ . . . . .	5
„ 3. Ditto with carbuncles . . . . .	1
„ 4. Ditto ditto and petechiæ . . . . .	2
„ 5. Simple buboes in one or both axillæ . . . . .	22
„ 6. Buboes in the axilla, with petechiæ . . . . .	3
„ 7. Ditto with carbuncles . . . . .	1
„ 8. Ditto ditto and with petechiæ . . . . .	3
„ 9. Simple carbuncles. . . . .	19
„ 10. Carbuncles with buboes . . . . .	1
„ 11. Ditto with petechiæ . . . . .	5
„ 12. Simple petechiæ . . . . .	36
„ 13. Ditto vibices . . . . .	2
„ 14. Buboes in the glands about the neck . . . . .	6
„ 15. Petechiæ and carbuncles . . . . .	1
Total. . . . .	167

The following is a statement of the duration of the disease:

*Died.*

On or before the fifth day . . . . .	149
From the fifth to the ninth . . . . .	14
On the tenth day (buboes in the axilla) . . . . .	1
On the eleventh (bubo of the parotid gland) . . . . .	1
On the twelfth day (bubo in the groin) . . . . .	1
On the fifty-seventh day (bubo in the axilla, a child three years old . . . . .	1
Total . . . . .	167

It is to be observed that these calculations of the periods of disease are made from the day the patients were received into the hospitals, and not from the time they were first attacked by

the disease, which at the beginning could not well be ascertained, and before the proper arrangements were made; and although the great mortality always takes place before the expiration of the fifth day, yet it is probable that in this instance the increased proportion took place from the difficulty in removing the sick to the hospitals, which were sometimes at a considerable distance, from the extreme badness of the roads, and the want of proper conveyances, or the means of carrying them. Indeed, it is agreed on all hands that no class of patients bear the fatigue of removal worse than the plague-patients. Yet this is no good reason either for multiplying pest establishments or for permitting pest patients to remain in their houses longer than it can possibly be avoided. We are therefore under the painful necessity, on account of the public safety, of removing plague-patients,—I had almost said, whatever the consequences may be to themselves,—and we cannot well draw a comparison between them and other classes of sick as to the *quantum* of injury they may experience by such removal, or consider the consequences which may arise; the essential point being, for obvious reasons, to weed out the plague wherever it makes its appearance as quickly as possible, and place it in the pesthouse, where it should be.

The following is a statement of the eruptive appearances of those who recovered:—

Bubo in the groin (several having one in each groin)	. . . . .	40
Ditto, with carbuncles in different parts	. . . . .	4
Ditto in the axilla	. . . . .	10
Ditto with carbuncles	. . . . .	2
Carbuncles simply	. . . . .	9
The doubtful or supposed cases of plague	. . . . .	7
Convalescents sent from St. Theodoro (already noticed)	. . . . .	15
		<hr/>
In all	. . . . .	87

It ought to be observed, that of the number mentioned as infected on the 7th of March, a considerable proportion had passed through the violence of the disease in the different pest establishments, and were in a fair way of recovery at that time,

but were kept on the strength of the returns as infected, as many of them required medical treatment.

But besides those I have mentioned as recovered, I have reason to think that there were several others who got well and returned to their families. I had, however, no means of ascertaining their precise number. Some of them were afterwards discovered by chance at the inspections of the villages.

In some of these cases, too, from the accounts which these persons gave of themselves, the disease appeared to have been so slight that they required no medical assistance whatever, and were thereby enabled to conceal their indisposition in the early part of the calamity, before matters were properly arranged.

In the examination of both the above returns, with reference to the ages of the persons admitted, I find them to be of all ages, from the state of infancy\* on the mother's breast to the age of eighty, and above it; but the greater mortality appeared to be from the age of fifteen to thirty, (probably because they were the most numerous class;) nor can I take upon me to say that the calamity was more fatal to man than to woman, the disease appearing, as I have already stated, to attack both sexes indiscriminately; and all exposed to it seemed equally liable to suffer, without distinction, from its malignant and fatal character.

From Mr. Saisset, who had had charge of the hospital of Clomo, I did not get the particular information which I required, as he had lost several of his papers containing various observations and remarks. He furnished me, however, with a detail

\* Of such unfortunate infants, I have no doubt but some might have died from the want of maternal care, having been brought into the hospitals with their mothers, after whose death they had no one to look after them properly. I remember one of these poor little orphans, a girl about two years old, a very interesting infant, attached herself to one of the *condannati*, who was also remarkably fond of her; and he, as far as possible, supplied the place of her mother. After remaining in the hospital for several months in perfect health, she at length caught the disease, but got favourably through it, and was finally liberated with the rest.

of eleven of the most remarkable cases admitted into his hospital. The loss sustained in Clomo by the calamity I have already mentioned when speaking of the propagation of disease there.

It is worthy of observation that, in examining these returns, I do not find that any one recovered who had either petechiæ or vibices; and in the different conversations which I had with the medical gentlemen afterwards, they remarked to me that no one who had these symptoms *had ever recovered*, and that they therefore considered such, when they did occur, as the most fatal symptoms which accompany the malady.

But although in the plague of Lefchimo the appearance of these eruptions invariably portended death, I am aware that some authors have recorded instances of recovery even from these appalling symptoms. Nevertheless, those writers who have done so, have, by universal consent, designated them as almost always fatal, and have informed us that the recoveries in such cases bear but a very small proportion indeed to the deaths.

Although, for the reason assigned, I am unable to state with precision the number of plague deaths previous to the 7th of March, yet from all the information which I have been able to collect, they amounted in the different places, besides those noticed in the returns, to about 199. The number will therefore stand as under:—

In the pest establishments of Marathea and Rumanades, and in other places, chiefly in the upper district . . . . .	199
In the pest hospital of Santa Trinita, and in that established in the camp district . . . . .	167
In the village of Clomo and in the hospital there . . . . .	46
In the hospital of St. Theodoro . . . . .	132
	<hr/>
In all . . . . .	544*

\* This return may not be, strictly speaking, correct, but it comes as near the truth as possible. Of this number, twenty-five were soldiers belonging to British regiments.

On referring to my statement of plague deaths forwarded to the medical board, I find it to have been considerably higher than the present one; which last, on a more minute investigation, I consider to be nearer the truth.



It has been supposed, that during the prevalence of plague, other complaints are suspended, or, as it were, swallowed up by the all-devouring enemy, and that ordinary indisposition partakes of the character of plague. I cannot, however, adopt this opinion; and certainly we did not find it so in Lefchimo, as we had a good deal of ordinary indisposition at the time the malady was starting up in the camps and in the villages; and latterly we had not much difficulty in discriminating betwixt the one and the other. This, if it had been the case, I had the best means of ascertaining during my residence within the district, as there were intelligent medical officers, who examined daily all the inhabitants of the villages which had been attacked by plague, and reported to me not only all suspicious circumstances, but also all the cases of ordinary indisposition which at any time occurred. In the villages also which never had been attacked by the plague, and of course were not subjected to these medical inspections, the magistrates were directed to send word to me whenever any person was taken ill, whatever the complaint might be; and such complaints as occurred were treated in the villages, and even in the camps themselves, according to the usual manner, (with the precaution of avoiding contact,) just as if no plague were existing in the district, and were eventually either cured or the patients died, without any suspicion of the plague hanging about them.

I can easily imagine, however, what has given rise to this opinion, and I have no doubt that the fact is, that, during the alarm and consternation which take place in the time of plague, persons who may really have no plague about them, and who labour only under common complaints, or the depressing effect of fear, and no doubt are extremely unwell, become dreadfully apprehensive for themselves, and their indisposition is pronounced to be plague without being properly examined into. I do not conceive that apprehension alone would cause the protrusion of buboes or the other eruptions. But we know enough of the powerful effects of fear to cause universal de-

rangement of the system, and, in some instances, even death itself. Moreover, there can be no doubt that persons under these circumstances have been dragged to a pest-hospital, when they ought not to have been touched; but from the equivocal nature of the symptoms on some occasions, (however much this is to be lamented,) I do not see that it can be always avoided.

From the memoranda which I kept of the deaths from common complaints, I find that both in the villages and in the camps they did not exceed ten from the time of my appointment till the 19th of May, when the plague entirely ceased; about which time the usual epidemic fever made its appearance, which, however, from what I could learn, was not so fatal as it had generally been. Of those who died during the period mentioned, one was a weakly infant of three months, one a woman in child-bed, one a case of chronic dysentery, and seven old people, from the age of seventy-six to ninety-eight, who, as might be expected, were much debilitated, and, indeed, completely worn out. These, for a population of about 7000, were certainly but few; which circumstance showed at least that the country was healthy as far as regarded other complaints.

It has been seen in the narration which I have given, that about the time the plague ceased, the epidemic fever commenced, and soon became general over the district, assuming the usual appearances, and quite unconnected with the general train of symptoms which more immediately characterise the true plague.

Previous to my taking the charge of the district, and whilst the plague was raging, I had no means afforded me of ascertaining the state of the actual public health separate from plague. But I could not learn on inquiry that there had been any other sickness prevailing which excited attention, exclusive of that malady.

In concluding this work, I am sensible that, in such a subject as this, there are occasional repetitions which I have found it difficult to avoid altogether, because I have been obliged to

consider the subject in different and sometimes in opposite points of view in the details and history, although not in the principle which has been acted upon, for that must be the same, from the time of Muratori (the only writer who has thoroughly understood the police of plague,) until the present time. He was the first who made a road for the management of this destructive and hitherto invincible enemy. The plan I have narrated may be capable of great improvement in detail, but I think the principle must be the same, wherever and whenever plague makes its appearance.

In the account of the management, I have carefully avoided hypothesis, and have only stated facts as they occurred, or as they were brought before me. I had no previously formed opinion to advocate; and if I must be candid, I had really little matured opinion on the subject, except that it was a dreadful calamity; and I do not know, with my present experience on the subject, that I should all at once have thrown myself voluntarily, I may say, amongst my plague patients in Egypt without any help whatever. This, however, I did, and fortunately escaped; but several others fell victims to it there.

# A P P E N D I X.

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## I. C A S E S.

### CASES OF PLAGUE WHICH OCCURRED IN THE DISTRICT OF LEFCHIMO.

BEFORE entering on the detail of these cases, it is necessary I should observe that they were officially transmitted to me, as the superintendent, by Messrs. Saisset, Gimellaro, and Dr. De Georgio, and were written in the French and Italian languages. They are selected from among many others as being the most interesting, and as showing the irregular and diversified symptoms with which this disease is so often accompanied.

After what I have already said on the doctrine of contagion, and of the plague being contracted only by *actual contact*, or, in other words, by *communication* with either impested persons or goods, I have nothing further to add with respect to these cases. They occurred at various periods during the prevalence of the calamity, and, beyond any doubt, were all owing to the same cause, although, in the time of plague, it is quite impossible to fix the proof in each particular case. Indeed, this is not to be expected, however desirable it might be to obtain this specific information.

It is to be observed, that the examination of the bodies after death is entirely confined to external appearances; and I am not aware that at any period of the calamity, and certainly not during my superintendence, any bodies were dissected. Indeed, although an anatomical dissection might show the ravages of the disease, yet I question whether such discovery would bring us nearer the proper method of *cure*. At all events, the dissection of plague bodies is an operation

so fraught with danger to those who might wish to perform it, that I would hesitate before giving my sanction to its being done, as I should consider it an act of great temerity, not called for.

The following cases were transmitted to me by Mr. Saisset, and were originally written in French. Except the two British soldiers, all the persons mentioned were natives of Clomo.

#### CASE I.

Jacometto Lavrano, aged 36, of a sanguineous temperament, was attacked on the 29th of December, 1815, about eight o'clock A.M., with slight symptoms of pyrexia and headach. At five p.m. of the same day, the fever increased, with violent vomiting. The headach increased, the tongue white, enlargement of the inguinal glands, attended with delirium.

On the 30th, less fever, and delirium less violent; headach also diminished. I gave him the tartar emetic and the decoction of bark, with camphor.

31st. The glandular enlargement has increased, and a bubo is formed of a very bad kind; that is to say, with the base of a livid colour, having the apex of a deep black. Applied a large blister to the bubo, which I allowed to remain till the day following.

Jan. 1st. The patient complained of pain in the calf of the right leg. On looking at it, I discovered another pestilential bubo, to which I applied another blister, which was of great service. On removing the blisters, both the buboes were open, with an abundant suppuration.

Jan. 3rd. The patient finds himself better. I gave him the bark and camphor for several days. The buboes continued to discharge, and by the 15th, they were healed.

24th. The patient was again attacked with slight symptoms of fever, and complained of pain under the left clavicle. On examination, I perceived another bubo like the former. I applied a blister, as before, and administered the tartar emetic.

25th. Tongue cleaner, the headach gone, and the pyrexia diminished.

26th. Having removed the blister, the bubo was open; but the discharge was trifling.

27th. The patient complained of very severe pain between his

shoulders. On examination, I found a tumour, to which I applied emollient poultices for a couple of days, and then opened it; when I discovered that it communicated with the other bubo, (and was, in fact, a fistulous sore,) I injected a decoction of bark into the sores, and applied compresses.

29th, 30th, and 31st. The patient goes on favourably.

Feb. 1st. He complains of pain and inflammation in his eyes, for which I continued the proper treatment till the 21st, when he was cured.\*

### CASE II.

Costantino Lavranno, 15 years old, of a sanguineous temperament, on the 29th of December had severe symptoms of fever, with violent headach. I ordered him the tartar emetic, which produced full vomiting.

30th. The pyrexia and headach less severe.

31st. He complained of pain in his groins; and on examination, I discovered two inflamed tumours of a bright red colour, shining, and extremely painful.

Jan. 1st. The tumours are increased in volume, and accompanied with black pustules, (*des pustules noires.*†)

2nd. The base of these tumours had become surrounded with an inflamed circle, having a dark, shining appearance.

3rd. I opened the tumours, from which only a small quantity of blackish matter was discharged. Febrile symptoms very high, and the patient extremely ill.

4th. Suppuration has come on.

5th. Less fever.

6th and 7th. I purged him with rhubarb.

8th and 9th. He finds himself a little better. I ordered him the bark and camphor till the 16th.

17th. He is considerably better. I continued to dress his sores with the *pulv. cinchonæ* till the 27th, when I considered him cured.

\* Some months afterwards, I saw this man in Clomo. There appeared to have been very severe inflammation in both eyes, which in one of them finally terminated in ulceration of the cornea, with almost total loss of vision of that eye. The vision of the other eye was also impaired.

† I am inclined to think that these *pustules noires* were not real petechiæ.

## CASE III.

Jan. 1st. Papa Postoli Lavranno, aged 30, of a bilious temperament, was severely attacked with fever, violent headach, and continual vomiting.

2nd. Fever increased, as also the pain in the head. His eyes troubled, (*les yeux troublés*,) tongue very white, much delirium. Ordered him the tartar emetic; which, however, was productive of no benefit.

3rd. Complained of very acute pain in the inguinal glands, and in those of the throat. On examination, I found pestilential buboes in both places, and the rest of his body full of petechiæ.

4th. I applied blisters to the buboes, and gave him the decoction of cinchona, with camphor; but he was getting decidedly worse.

On the 5th, at five o'clock in the morning, I found him dead; and on examining the body, I found the buboes ashy-coloured, with small carbuncles over the body, and the mouth filled with black, filthy sordes.

## CASE IV.

Jan. 1st. Stamati Lavranno, of a bilious temperament, (the age not mentioned,) complained of violent headach, with continual vomiting. Gave him a dose of rhubarb.

2nd. He had a very severe paroxysm of fever; headach increased.

3rd. Complained of pain in the inguinal and parotid glands; and on examination, I found two buboes in the parotid glands, and a very considerable enlargement in those of the groins.

4th. The fever has much increased; tongue white. The eyes have a wild appearance; and he has continual delirium. I applied blisters to the buboes, and administered the bark and camphor; but he is getting worse.

5th. Petechiæ have appeared.

6th and 7th. Seems to be perfectly insensible, and continually delirious.

8th. At 8 o'clock A. M., I found him dead; and on examining the body, I observed it covered with petechiæ, and the buboes of a dark livid colour.

## CASE V.

Jan. 1st. Spiro Lavrano, aged 70, of a sanguineous temperament, complained of acute pain in both groins. I examined him, and discovered two large buboes. He assured me that for the last three days he had felt pain in his groins; but that they were not sensibly enlarged till to-day, when I saw him. He had little or no fever, and his head was clear.

3rd. Pyrexia has come on. Tongue very white, with violent headach. I gave him the tartar emetic, and applied blisters to the buboes.

4th. Pyrexia considerably increased, and the headach is now become insupportable. His eyes wild, with continual delirium.

5th. About the middle of the thigh, several small carbuncles have made their appearance, to which I applied the actual cautery (*baton de fer.*)

6th. Removed the blisters, and opened the buboes.

7th. Less pyrexia, but the headach continues.

8th. Ordered him a dose of rhubarb, which had full effect; I ordered him the bark with assafoetida, and dressed the sores with a decoction of the former. By the 24th, he was perfectly cured.

## CASE VI.

January 4th, 3 P.M., Spiro Aftimo, aged 41, of a bilious temperament, complained of acute pain in the groins, and of insupportable heat all over his body. On examination, I discovered a very considerable enlargement of these glands, and the body full of petechiæ and carbuncles.

5th. Pyrexia much increased, and headach extremely violent, with continual delirium.

6th. At 7 A.M. I found him dead. On examining the body, I discovered the glandular enlargements of a livid colour, the petechiæ purple, and the carbuncles quite black.

## CASE VII.

January 4th. Janni Lavrano, a child two years old, at 10 A.M., was attacked with slight symptoms of fever, with enlargement of the in-



guinal and parotid glands. About noon, the fever was considerably increased, and the glandular enlargement of a purple colour. Petechiæ appeared, and by five in the afternoon he was dead.

This child's father had already died of the plague. His mother was ill at the time, and had buboes in the groins and parotid glands. She died the day after her son.

#### CASE VIII.

January 20th, 10 A.M., Ursula Lavrano, aged 48, of a bilious temperament, had a severe attack of fever, with violent headach. Towards noon, a bubo made its appearance on the fore-arm, with petechiæ all over her body.

21st. Pyrexia increased; the tongue dry, and she complains of continual thirst.

22nd. The febrile symptoms still more violent, and the headach insupportable. The eyes wild with furious delirium.

23rd. The febrile symptoms still further increased. The tumour of a black colour. The petechiæ spots purple, and the whole skin red and inflamed.

24th. In her increased delirium during the night, she escaped from the hospital, and ran about till 6 o'clock in the morning; when I got her brought back to the hospital, and two hours after her return, she expired. The body exhibited the usual appearances, with small blackish carbuncles on different parts.

#### CASE IX.

Jan. 18th, George Jany, soldier of De Rolle's regiment, of a bilious temperament, (age not mentioned,) was attacked severely with fever, headach, and delirium.

19th. I observed a large bubo in the parotid gland; tongue white; eyes wild. I ordered him the tartar emetic, and afterwards gave him the decoction of bark.

20th. Petechiæ and small carbuncles have made their appearance.

21st. The patient seemed to be a little better. I made him take the bark with camphor, but without any benefit.

22nd. Fever increased, accompanied with furious delirium; the

bubo became blackish, the petechiæ purple, and the carbuncles quite black.

23rd. At 6 o'clock in the morning I found him dead.

#### CASE X.

Jan. 20th, Joseph Golder, soldier of De Rolle's regiment, of a sanguineous temperament, (age not mentioned,\*) complained of pain in his head, and of a swelling about the middle of his thigh. On examination, I found a large tumour there, and a number of small carbuncles dispersed all over his body. I immediately gave him the tartar emetic, and afterwards the bark.

21st. Applied a blister to the tumour.

22nd. He appeared to be a little better. Having opened the tumour, or bubo, there was a considerable discharge of matter from it.

23rd. Applied the actual cautery (*baton de fer*) to the carbuncles.

24th. The fever and headach have increased, and he complains of being very ill.

25th. The bubo and the carbuncles have become gangrenous.

26th. Less fever. I ordered him the bark with camphor.

27th. A large eschar of about six inches in breadth by eight in length, separated from the bubo; I dressed the sore with the bark, and gave him the bark and camphor internally till the 21st of February, the period at which my hospital was broken up, and transferred to that of Santa Trinita, near the village of Argirades.†

#### CASE XI.

Jan. 26th. The Papa Janni Babi, aged 36, of a bilious temperament, about 12 o'clock at night, was seized with vomiting and cold rigors. Two hours afterwards, these went off, and were succeeded by a hot fit. This morning, about 3 o'clock, I saw him, and administered the tartar emetic, but no vomiting was produced; by 4 o'clock, he had three stools; at 5, the fever returned, and he complained of pain in the glands of the groin. On examining the parts, I discovered

\* I frequently saw this poor man afterwards, and think he may have been about thirty or thirty-five years of age.

† The sequel of this poor man's case has been already mentioned.

pestilential buboes, and the skin covered with petechiæ; at 8 o'clock, I applied the blisters to the buboes; about noon, the febrile symptoms had a little diminished; I ordered him the bark with camphor and asafœtida. Afterwards stupor came on.

28th. About 5 o'clock this morning, the febrile symptoms and headach have increased, with the addition of delirium; the buboes are blackish, the petechiæ purple, and the whole skin red and inflamed.

29th. The delirium having ceased, he became weak, and lost the power of speech, (*perdit ses forces, et la parole,*) and was motionless, but with his eyes wild and his visage pale.

30th. At 10 in the forenoon, I found him dead.

This clergyman had caught the disease by taking some effects belonging to a man who had been attacked by the plague more than twenty days before, and who was convalescent at the time. I lodged with him till his last moments. (*J'ai été logé chez lui jusqu'à ses derniers momens.*)\*

The following cases were transmitted to me by Assistant-Surgeon Gemellaro. Some of them were his own immediate patients early in the calamity; the others he had occasion to see afterwards, during the prevalence of the malady, from his proximity to the hospital in the camp district, where he was afterwards stationed, and from daily, and indeed, almost hourly conversations with Dr. De Georgio, (who was immediately in charge of the hospital,) or the cases which were admitted into it; and which, from his situation there, he had occasion almost always to see before they were admitted into the hospital. Mr. Gemillaro was a young man of considerable professional acquirements,

\* The circumstance of Mr. Saisset's residing in the same house with this clergyman will account for the early hours at which he saw him.

Most of the patients mentioned above bear the surname of Lavrano, but the reader is not on that account to infer that they all belonged to the same family. This is not the fact; they belonged to several families of the same name; and I believe I am correct in stating that, in some of the villages of Lefchimo, not less than one-half of the inhabitants are of the same surname; and Lavrano is the general family name in Clomo. Other villages have other family names. I did not inquire much into the reason of there being so many families named alike in the same place; but from what I could learn, it appeared to me that it was owing to something of a *clannish* nature. At any rate, the fact is as I have stated it.

and he regularly recorded those cases at the time. I have no reason to doubt the accuracy of what he details.

The cases were written originally in Italian.

#### CASE XII.

Jan. 7th. Mr. Tory, Hospital-Assistant, aged 23. This young gentleman, who was in charge of the pest patients in the camp of Marathia, after his return last evening, from visiting the impested villages, was to all appearance in perfect health, and after having ate a hearty supper in the house of the Signor Nicolo Trivoli, with whom he was staying at the time, was attacked with fever in an excessively violent manner, (*viene assalito dalla febre, con una violenza eccessiva,*) which threw him into a state of great agitation and dread. He refused to be bled, as he had already found that mode of practice to be unsuccessful where he had tried it; in place of which he caused a blister to be applied to the nape of his neck.

When Mr. Tully and I went to see him, Dr. De Georgio, who attended him at the time, informed us that he already complained of an acute pain in the groin. Mr. Tully, with every necessary precaution, went to see him in his room, and to endeavour to keep up his spirits, strongly recommending him to be bled; which he, however, positively refused to allow. His head was confused, and his general appearance very considerably changed; his eyes were stern and furious; he immediately got eight grains of calomel. A sinapism was applied to the groin for a couple of hours, and afterwards a blister.

In the evening, stupor came on, during which he had two involuntary evacuations. Two blisters were applied to his legs, and two common enemas were administered.

8th. This morning, he became convulsed, and continued in a state of syncope for some minutes; after which he took the following draught:

R Æther Sulph. ℥i. Tinct. opii gtt. xv. Aq. menthæ ℥i.

He felt himself very weak, and his head much confused.

Towards evening, he was a little more composed; took some broth and wine, and also a camphor mixture. The bubo continues painful, but does not seem to be enlarged, nor to protrude towards the surface, (*ne tendere verso la cute.*)

9th. This morning, he appears a little more calm, has taken some wine and broth, but has a great dislike to the camphor mixture. He asked me whether I thought his disease was the plague. The bubo is extremely painful, but has not increased in size; his head is very giddy; gave him the decoction of bark, and some of the best wine I could procure.

10th. The stupor has returned this morning, and he does not answer distinctly to the questions put to him. Refuses all medicine and nourishment. Towards night, the stupor changed to a state of furious delirium. He got up from his bed, quite unconscious of what he was doing; but in a moment afterwards he became exhausted, and fell on the floor; his visage fierce and extremely changed and pale; his lips livid, and his eyes of a turbid appearance.

11th. To-day is become excessively languid, and neither speaks nor moves. In the evening, he vomited a great quantity of sordes, like grumous blood, extremely offensive to the smell, and in a few moments after, he expired.

#### CASE XIII.

Jan. 23rd. Papa Lessi, or Alessi, of Cuspades, aged 38. This morning was attacked with an obstinate epistaxis, accompanied with very great prostration of strength. No one could say whether or not he had had any febrile symptoms last evening. His countenance was pale and attenuated, and he was so weak that he could scarcely speak. The blood discharged was dark coloured, and like venous; he was ordered a mixture with vitriolic acid, which for a short time seemed to stop the hæmorrhage.

24th. Last evening, the epistaxis returned, and was so profuse that he fell into a state of *deliquium animi*, and never afterwards opened his eyes. The tide of life seemed to ebb away gradually, and in a few hours he expired.

The body exhibited no other appearance of plague than a remarkable degree of flexibility.

#### CASE XIV.

Jan. 26th. Spiro Lessi, son of the Papa Lessi above mentioned, aged 10. This boy was so afflicted at the death of his father, that he refused all food, and only wished to remain quiet. His countenance

became pallid, and he was so much debilitated, that he could scarcely stand in an erect posture for any length of time.

He passed the whole of yesterday in bed, and had a degree of stupor. In the evening afterwards, he had a short fit of anxiety. He vomited a quantity of blood, shortly after which, a profuse epistaxis came on, and he immediately expired. The body did not exhibit any particular marks of plague.

On these cases, Mr. Gimellaro remarks—"The death of this boy, with symptoms so very similar to those of which his father died, although none of the usual appearances of plague were observed after death, caused us nevertheless to suspect much that the disease by which both were carried off so very suddenly was by no means an innocent disease. I was the more confirmed in this opinion, when I learned that the papa two days before his death had been at the village of Rumanades, where the plague was at that time raging, to see if his house there was burnt, as had been stated to him.\* In consequence, therefore, of these sudden deaths, the family and house of a man named Zervo, in which the boy had died, were, without loss of time, placed in quarantine."†

#### CASE XV.

Feb. 11th. Maria Zervo, aged 26, belonging to Cuspades. For ten days after the death of the boy Lessi, (who, as we have seen, died in Zervo's house,) nothing of a suspicious nature having been observed in that family, who, to all appearance, were in perfect health, the quarantine restraint was removed yesterday morning, when, to my

\* It appears also that the papa's brother from Rumanades had died of the plague in his (the papa's) house, and I am more disposed to think that the family became impested from him, than from the circumstance of his having gone to Rumanades to look after his house there.

† It is to be observed that these cases happened early in the calamity, when the disease was not so well known as it was afterwards; and it would appear that the papa was not supposed, from the absence of the usual plague appearances, to have died of that malady, and that no precautions whatever were taken with respect to him. But when the boy was taken ill so soon after him, in the same way, and died still more suddenly than his father, Mr. Gimellaro began to be alarmed, and it was judged necessary to adopt some precautions in this case; which, however, do not seem to have been carried quite far enough. For my own part, I have no doubt but that both were very bad cases of plague, and no mode of treatment which we know could, in my opinion, have saved the patients.

great surprise, I learned this morning that Maria Zervo, the mother of the family, then in the sixth month of her pregnancy, had had a *fausse accouchement*, without any one previous bad symptom, except great debility, and a few minutes after her delivery she expired. I went to see the body, but could perceive no other appearance than that it was more flexible than is usually seen. But from this day I began to doubt that the appearance of the body after death shows decidedly that the person died of plague. (His own words are—"Ma da questo giorno cominciò adubitane che le apparenze del corpo dopo la morte passano mostrar decisamente de la persona era attaccata da peste."\*)

#### CASE XVI.

Feb. 24th. Stellia Zervo, aged 45, from Cuspades. This woman, who belonged to the same family, which was now considered impested, was this morning attacked with slight symptoms of fever, which were preceded by cold shiverings. Her countenance is changed, her mouth dry, her lips livid, and her tongue ashy coloured; her head giddy. She complains of weight and oppression at her heart, which causes her to sigh heavily every moment, and of most acute pain in her groin. I sent her immediately to the hospital.

Emplast. lytt. buboni per horas tres, et applicetur deinde cataplasma.

R. Calomel, gr. vi. Statim sumenda.

25th. During the night, she had two evacuations. The bubo is increasing, and looks as if it would come to suppuration. Cont. catapl. She is extremely pulled down, and without the least appetite for anything. Tongue still foul and dark; pulse extremely small, but regular.

R. Pulv. cinchon.  $\zeta$  i.  
 Camphor. gr. xx.  
 Solv. in spt. vin. gtt. xxx.  
 Aqua lb. iss.  
 Sumat  $\zeta$  ii. tertiâ quâque horâ.

She is ordered soup, and whatever nourishment she can take, as also a pint of wine.

\* Here Mr. Gimellaro doubtless means that persons may die of plague without having those eruptive appearances after death which are generally considered to characterise this malady. When they do occur, the matter is put beyond all doubt; but their absence is not always a proper criterion to judge negatively.

26th. The bubo is opened and dressed with the balsam d'Arceo. She feels very weak. Cont. ut heri.

March 15th. After so many days, during which she continued progressively to get better, she now finds herself pretty strong; has a good appetite, and the bubo is almost cicatrized.

20th. Cured.

#### CASE XVII.

Feb. 26th. Crisulla Monasteriotti, 3 years old (from the highly suspected camp), belonging to St. Theodoro. Last evening, had a slight attack of fever, and this morning is extremely weak. Pallid countenance, eyes fixed, tongue foul, and is so giddy that she cannot stand in an erect posture. Has vomited a quantity of greenish matter, after which she became *comatose*. Was sent to the hospital, where she immediately took 5 grains of calomel and 10 of rhubarb.

27th. Purgative has operated twice. She refuses all medicine and nourishment of every kind. Is extremely reduced, and cannot keep her eyes open even for an instant.

28th. Last evening she died. Her body did not exhibit livid spots, nor petechiæ, nor tumours, nor any other remarkable appearances of the plague.

#### CASE XVIII.

March 3rd. Maria Plascovitis, aged 12, of Argirades. Last night was attacked with most violent febrile symptoms, ushered in with cold rigors, which lasted for more than two hours; and this morning, when she awoke, she found herself all bathed in sweat. She was very languid when I saw her, but she got upon her feet, and told me that now she felt herself well, and that she believed her fever last night to have been occasioned by getting cold in the night under the tent, as she had never been accustomed to sleep in that manner before. Her tongue, however, was of the usual ashy whitish colour, and I observed a small red spot near the external angle of the right eye. She was sent to the hospital.

Having arrived at the hospital, which at that time was nearly four miles distant, and the road exceedingly bad, she became very weak;



and by this time, the red spot had assumed the appearance of a carbuncle.

R Calomel gr. vi. Statim sumend. Some digestive was applied to the carbuncle.

4th. Passed a tolerable night, and had two evacuations. This morning, she seemed to be much pulled down, but her head was clear. Takes bark and wine. The *eschar* of the carbuncle is black and hard, like a piece of leather; and about the edges it is highly inflamed. Cont.

5th. During the night, she fell into a state of extreme weakness. This morning, the carbuncle was *sphacelated*. The body was covered with petechiæ. Shortly after, she expired. The body was very flexible.

#### CASE XIX.

March 3rd. Theodorella Vlasi, of Critica, aged 22. This young woman was yesterday admitted into camp, with all her family, in consequence of one of her sisters having died of the plague.

On my visit this morning early, she seemed to be very well; but towards 8 o'clock A. M., as if struck with lightning, (*colpita come del fulmine*,) she fell into a state of extreme weakness, which at length ended in oppression about the *præcordia*. I called on her to come forth from the tent, that I might see her, but she was unable without help to raise herself up. The staggering was so great that she was forced to lay hold of the pole of the tent to support herself, and to shut her eyes. (*I capogiri erano sì violenti, che l'obligavano a tenersi la ponte colla mano, e serrare gli occhi.*) The tongue had the usual white appearance. Her lovely countenance (*la di lei bella fisionomia*) was not much altered. Her body was full of petechiæ, and whilst I was sensibly affected at the sight of her, foreseeing, as I did, the miserable end of this unfortunate creature, she conjured me to let her remain quiet for a few hours, after which she hoped she should be better. She, however, soon changed for the worse, and the hand of death lay heavy on her. She complained in the most distressing manner of pain about the *præcordia*, which, she said, tormented her. But what distressed her above all was the sad sight of her relations, all hastening to clear the tent of their effects, and to remove themselves to a distance from her. Her strength being now entirely exhausted, she expired at half-past 9 o'clock, only an hour and a-half from the moment she first began to complain.

The body was full of petechiæ, livid, soft, and extremely flexible. This was the most violent case of plague I ever witnessed.

## CASE XX.

May 28th. Cicca Curri, two years old, from St. Theodoro. This poor female infant, having no one to take care of her, was taken to the hospital along with her mother and aunt, both of whom were attacked by the plague on the 5th of May, 1816, and both died of that malady.

In the very bed where these died, and lying in their very arms when they were dying, this little innocent withstood the influence of the contagion, and defied its attacks. She was by this time seen like a little Nemesis in the hospital, constantly carried about in the arms of all indiscriminately, of the infected and convalescent, still enjoying the most perfect health. One of the *forzati*, or felons, who had become uncommonly fond of her, and had latterly taken upon himself the entire charge of her, was attacked with the plague. The unfortunate infant who slept in the same bed with him, and who had two watery pimples on the left leg, became attacked with fever, accompanied with an enlargement of the inguinal gland, and a carbuncle. In five days the former was discussed, and the latter got soon well. She now enjoys perfect health.

## CASE XXI.

March 6th. Tassia Plascovitis, aged 36, from Argirades, (was attacked in camp.) She was this morning attacked with unequivocal symptoms of plague, and sent to the hospital. Tongue whitish, eyes troubled and wild, complexion livid. She brought with her to the hospital an infant named Annetta, two years old, still at the breast.

On her arrival in the hospital, she would neither take nourishment nor medicine of any kind, but drank a little wine, and became delirious during the night.

7th. To-day the delirium has increased, and when any questions are put to her, she answers in a mad, furious manner, but her strength is so exceedingly reduced, that she is unable to stand in an erect posture. She refuses to suckle her child, who will not taste any kind of food.

8th. A little after midnight, delirium increased to so violent a

degree, that she jumped out of bed, seized hold of her infant, who was crying, and, horrible to relate, before any one could prevent it, with all the fury of a tigress, dashed it on the ground and killed it on the spot. The unhappy woman did not, however, survive long this dreadful act, but in a state of perfect exhaustion, she shortly after breathed her last.

Her body was full of petechiæ, and very flexible. That of the child had no appearance whatever of plague in it.

#### CASE XXII.

March 7th. Anastasi Cavadia, aged 36, of Argirades, (was attacked in the camp.) This morning he was sent to the hospital, with bubo in the axilla, but with little or no febrile symptoms; he feels himself otherwise strong, and in perfect health; the pain in the axilla was, nevertheless, very intense.

Sumat statim calomel, gr. vi.

Applicetur emplast. lytt. buboni per horas quatuor, deinde cataplasma. emoll.

8th. The pain in the axilla has lessened; has had a little accession of fever, but without cold shivering; had three stools; appetite gone, and he appears weak; ordered wine and the mist. cinchonæ, so as to take ʒij of the powder every two hours.

9th. The tumour in the axilla appears to be diminishing in size, and the part to which the blister was applied is still a little inflamed; he is very weak.

Repet. pulv. cinchon. et vinum. Capiat camphoræ gr. vi. ter in die.

10th. The tumour continues to diminish sensibly, and he is getting better.

18. Tumour entirely gone, and he is in a state of convalescence.

#### CASE XXIII.

March 18th. Stefani Monasteriotti, aged 20, from St. Theodoro, (occurred in the camp.) This morning, when he got up for the usual inspection, he told me he had a most violent toothach; he had slight epistaxis and sneezing; on observing which, I judged it proper to place him in a tent by himself.

℞ Pulv. antimon. gr. ij. secund. quâq. horâ ad quartum vicem.

He perspired during the night, but the side of his face where he had complained of the toothach, was already much swollen, and his tongue very white.

19th. This morning he has evidently a bubo in the maxillary gland, and on the other side of his face something like a small boil appeared; he is very weak, and attacked with violent staggering, (*assalito di violenti capogiri.*)

I sent him to the hospital, which was distant not more than two hundred yards, and on his arrival there, he seemed to be extremely exhausted; indeed, so much so, that he was unable to swallow either food or medicine; he became lethargic, and soon after fell into a complete state of stupor.

20th. He expired this morning.

A few petechiæ were observed on the body, which was of a livid colour in some places, but it did not appear to be flexible.

#### CASE XXIV.

March 12th. Erasmo Micruli, aged 25, from Anaplades, (occurred in camp.) This morning, at my visit, he told me that he wished to go to the hospital, for that since last evening a bubo had appeared in his groin, and he had been attacked with fever and cold rigors, which were very severe. I saw the bubo; the skin over it was inflamed; his strength was but little impaired, and the appearance of his countenance was not altered. He was sent to the hospital.

Sumat statim magnes. sulphat  $\zeta$ i.

Applicetur emplast. lytt. buboni et cataplast. emolliens postea.

13th. Last night, he had a most violent return of fever, accompanied with furious delirium, in consequence of which the servants were obliged to tie him to his bed hand and foot.

The bubo seems to proceed to suppuration. Cont. cataplast.

14th. The delirium continues, but the other febrile symptoms are much more moderate; he refuses food and medicines.

The bubo is almost ready to be opened. Cont. cataplast.

15th. He was loosened for a short time this morning, as he was thought to be a little more tranquil; but no sooner was he freed, than he became more furious than ever. Took a little broth, and in the

evening the bubo was opened with a lancet, when a great quantity of bloody matter was discharged. Cont. cataplasm.

16th. He slept well last night, but for fear lest the delirium should return again, it was thought proper to keep him tied for four days longer. The bubo was dressed with the balsam d'Arceo. Takes bark and wine.

30th. Gaining strength by degrees.

April 5th. Convalescent.

#### CASE XXV.

April 7th. Maria Crisicopulo, aged 19, from Anaplades. She was sent to the camp of observation last evening from the village on suspicion of plague.

This morning she was seized with symptoms of fever, cold rigors and headach; after which she fell into a profuse sweat. Tongue clean, countenance scarcely altered; has a small red spot on her back. Not having any of the remarkable symptoms, I of course would not send her to the hospital, but kept her in observation awaiting the result; and, in the meantime, gave her a gentle purgative, she being at the time pregnant four months.

8th. This morning she appears to be a little better; tongue still clean and without anything remarkable in her appearance; the spot on her back is nearly gone, and her strength but little impaired. At the same hour as yesterday the fever returned, with cold shivering, and with every appearance of its being an intermittent fever; I ordered an ounce of the pulv. cinchonæ to be taken during the night.

9th. The spot has this morning assumed the appearance of a small carbuncle; tongue still clean, but her strength is extremely reduced. She has evidently a small bubo in the axilla; she went to the hospital, which was close by; a few minutes after her arrival, an uterine hæmorrhage came on, and she immediately expired.

The body flexible, petechiæ, &c.

#### CASE XXVI.

May 16th. Anastasi Calojexopulo, aged 65, of Anaplades. This man with his family, consisting of four individuals, were sent from Anaplades to the highly suspected camp on the 6th of May, in con-

sequence of one of his daughters being attacked with the plague, who died of it after a few days' illness.

The family, on their removal to the camp, carried their susceptible effects along with them, and everything thus brought was frequently washed in the sea by himself and his family, and afterwards dried in the sun. Notwithstanding all this, on the 8th, two days after, another daughter, named Diamondulla, 15 years old, was also attacked and sent to the hospital, where she died the third day.

This poor man, anxious for his own safety, and wishing to get rid of the plague contagion, still continued to wash and air his clothes and other effects, and to bathe himself in the sea. But this morning, ten days after his arrival in the camp, he complains of his head feeling heavy and giddy, of oppression at his stomach, and a bitter taste in his mouth.

He was immediately separated from the other two remaining individuals of his family, who had hitherto been lodged in the same tent with him, and placed in a tent by himself, to see how the case would terminate, and in the meantime was ordered a purge. In the evening, he felt a little lighter.

17th. This morning he feels himself much better; his tongue is cleaner, and his head more free, (*la testa piu libera;*) and as he has had only two evacuations from the purgative, he was ordered half an ounce of the cream of tartar.\*

18th. This morning, his countenance indicates the progress which the disease had made in his system, (*oggi la sua fisonomia indica il progresso preso dal morbo sopra il suo sistema.*) His eyes are fixed and wild, his countenance pallid, he has staggering, is faltering in his speech, and his voice is hoarse and hollow; a bubo is already evident in his right groin; he is, notwithstanding, clear in his intellect, and was capable even of writing his last will. He was sent to the hospital.

19th. This morning, on inquiry after him, I found he had died a little after midnight.

\* Mr. Gimellaro, when he sent in his evening report to me at Egripos, mentioned this case, and his apprehension that it might eventually turn out to be a plague case. Early next morning, I went down to the camp to see the man. The case is already alluded to in the work. The other two of the family escaped.

His body was covered with petechiæ.\*

This case made a strong impression on my mind; and certainly I was in hopes that after a lapse of ten days, during which the remaining members of the family continued to all appearances in good health, and as they had been particularly careful in washing and airing their effects, and in bathing themselves in the sea, we should have had no more plague in that family.

It was no doubt quite possible that he himself might have had the plague in his constitution before leaving his own house; or that he might have contracted it from his second daughter, Diamondulla, after his arrival in the camp. But it was also possible that he might have contracted the malady from airing and handling his impested goods.

This case, therefore, and some others, suggested to me afterwards, that in order immediately to destroy any contagious matter which might remain in the effects which the people bring with them, it would be well to put them in hot water, as I have already noticed in another part of this work. I know this would be a troublesome operation, but in the treatment of plague we are neither to consider

\* I subjoin here the conclusion of Mr. Gimellaro's report in his own words, which, as a short summary of the symptoms and character of plague, may not be unacceptable to the reader:—

“Questi pochi casi bastano per dare un' idea dell' anomolia della peste; che noné che il complesso di tanti sintomi gravissimi, la di cui comparsa non é mai regolare.

“La descrizione, che io posso dare in generale della peste dopo tante osservazione si é, che ogni persona di qualunque sesso, ed età, in qualunque stagione, che viene attaccato dalla peste, lo dimostra all' alterata fisionomia; il colorito, editratti del suo aspetto disengon mutati e strani; i suoi sguardi sono concentrati e fieri; ma molto piu spesso fissi; e gli occhi sono asciutti ed opachi; la testa si fa pesante e vertiginosa; e l'infermo diviene tedioso ed irritabile, a non risponde che a forza, con nojia e dispetto. Le segrezione sono disordinatissime. La febbre, che per lo piu apre la scena, spesso si manifesta con tutto il furore infiammatorio, col delirio, la frenesi, il furore, spesso con leggieri parossismi d'intermittentes. Alle volte é accompagnata da oppressione al cuore; alle volte, da coma.

“La lingua quasi generalmente é sudisia, e peculiarmente di un color cenericio. Lo stomacho affetto da nausea, o da vomito. L'escrepone disordinate.

“In progresso si manifestano i buboni nelle parte glandolose del corpo; i carbunculi, &c., nei casi piu gravi la prostrazione di forze; e immediatamente seguita dalle petechiæ, dalli svenementi, e dalla morte.

“La flessibilita del cadavere nei casi gravi generalmente si osserva; ma l'assanza di questa apparenza non esclude la peste.

“L'arte medica ha pochissima influenza nella cura della peste. Il medico non puo che assistire in parte gli sforzi della natura. La supporazione spontanea del bubone puo riguondarsi come la sola crisi della peste.— Campo di Perivoli, 31 Maggio, 1816.”

trouble nor expense, provided we are enabled to clip the wings and impede the progress of this destructive demon and relentless enemy.

The separation of this unfortunate man from the other two persons of his family as soon as he began to complain most probably saved them. It is possible that they might have escaped even had they all remained together, but not at all probable; and therefore the only thing that could be done, and the only chance to save them, was to separate them from the sick person as soon as possible.

The following detailed accounts of cases form part of Dr. De Georgio's report to me, which is written in Italian. It will be remembered that this gentleman was employed in attending the plague patients from the beginning; and, indeed, was the only one in immediate attendance on the sick in hospital from the time I took the charge, till the malady was finally subdued. The whole of the cases here mentioned were his patients.

His practice, at least, as far as regarded wine, was decidedly the Brunonian system; and in the cases which he has detailed, he has given the recoveries from extremely unfavourable symptoms, but has not mentioned any cases in which the patients died; and it is fair to say, that they were by far the most numerous. It would, therefore, have been much more satisfactory if he had also given a full account of the cases in which the same mode of practice was tried and found to be unsuccessful. He has enumerated them in his general return, but without going into any detailed account of these cases. Dr. De Georgio mentioned to me in reference to his return, that the greater part of his papers had been lost or burned in the removal of his hospital at St. Trinita to that in the camp district, in the confusion which took place on that occasion. The cases of recovery, however, were preserved by being locked up in his trunk.

#### CASE XXVII.

Jan. 4, 1816. Giovanni Vaschi, aged 40, belonging to the Royal Corsican Regiment, was attacked with the following symptoms:—Headach, staggering, a wild, staring look, foul tongue, vomiting of bilious matter, prostration of strength, pulse weak and quick, with bubo in the throat. Was ordered an effervescent draught, with twenty drops of laudanum, and an emollient poultice to the bubo.



5th. Nearly the same as yesterday. Rep. omnia, and ordered the cinchona mixture, taking one ounce of the powder in the day.

6th. Delirium has come on, with extreme debility, and a difficulty in breathing. R Alkali volatilis, gtt. xxx. The other medicines to be continued, as yesterday.

In the evening he was ordered the following draught:

R Spt. vini, ℥i.

Camphor. ʒi. Fiat haust.

Three blisters, as rubefaciens, (*come rubifaciens.*)

7th. Nearly as yesterday; the vomiting has ceased. R Mist. cinchonæ, et haust. camphor.

8th. I observed his extremities cold. Rep. omnia ut heri; sinapism to the soles of his feet.

9th. The bubo very much enlarged. The patient can hardly swallow broth; delirium gone. Cont.

10th. Little alteration from yesterday. Cont.

11th. As yesterday. Cont.

12th. The bubo burst internally, and a quantity of matter was discharged; the symptoms much relieved; begins to take some nourishment and wine; the swelling externally continues very large.

13th. I opened the swelling.

14th. He was sent to the hospital at Santa Trinita, so that I am unable to continue the case any further till the 25th of January, when I was put in charge of the hospital, where I found him in a most dreadful state, (*in pessimo stato*), with a communication betwixt the œsophagus and the external aperture, through which a portion of his food passed. From this, however, he was perfectly cured by the 14th of March.

#### CASE XXVIII.

Philip Tistling, aged 30, soldier of De Rolle's regiment, was admitted into the hospital on the 26th of January. The fever was ushered in with cold rigors, headach, giddiness, vomiting, pulse intermitting, stern countenance, tongue foul and dry; is extremely thirsty; had been ill for two days before his admission into the hospital; has two buboes in the groin, and a carbuncle on the back part of his thigh.

Took 10 grains of calomel, and in the evening 20 grains of the pulv. ipecacuan. comp. Takes no nourishment, except a little wine. Applicetur vesicator, bubon et postea cataplasma, emollient.

Made an incision into the carbuncle in the form of a cross, and afterwards dressed it with a mixture of the pulv. cinchonæ, camphor, and turpentine.

27th. Delirium has come on. In other respects much as yesterday.

Ordered the effervescent draught with laudanum; afterwards ordered, towards evening, the following mixture—

R Camphoræ ʒi.  
Spt. vini ʒi.  
Pulv. cinchonæ ʒi.  
Alkali volatil. gtt. xx.  
Aquæ font lbij.  
Three blisters, as rubefaciens.

28th. In a state of delirium, which returned last night, he escaped from the hospital, and bent his way to the village of Argirades, (nearly a mile from the hospital, which was established in the convent of Santa Trinita.) When the guard acquainted me with his escape, I immediately sent off the hospital servants to bring him back. Towards morning the delirium was somewhat abated.

R Gum camphoræ ʒi.  
Spt. vini ʒi.  
Laudani gtt. xx.  
Pulv. cinchonæ ʒij.  
Serpentariæ virg. ʒ iv.  
Vini lib. ij. ℥.

Refuses any kind of food, but drinks wine.

Continue the poultices to the buboes, and the dressing to the carbuncle.

29th. The delirium as yesterday, in other respects much the same. Cont.

30th. Little alteration. Cont.

31st. Speaks sensibly, and the delirium gone, as also the other unfavourable symptoms. Cont.

Feb. 1st. The patient is better. The pulse is natural, but weak. Tongue moist and clean, and his eyes no longer had that stern appearance. Took some broth and wine, but refused solid food. Cont.

2nd. The buboes which at one time looked as if they would come to suppuration, seem a little decreased. Appetite still bad. Cont.

3rd. Much as yesterday. Cont.

4th. Made an incision in the buboes, and dressed them with digestive, (*si diede il taglio ai buboni, e medicati col digestivo.*) The eschar from the carbuncle begins to fall off.

Omitted the mixture with bark, and gave him the *decoctum amarum* and three pints of wine during the day.

5th. As yesterday. Cont.

6th. As yesterday. Cont.

7th. The eschar has fallen off from the carbuncle. Dressed it as a simple ulcer.

From day to day he gained strength, and was dismissed cured on the 27th of March.

#### CASE XXIX.

Anastasi Marzi, 13 years old, from Argirades, Feb. 3rd, entered the hospital of Santa Trinita with symptoms of pyrexia, preceded by cold rigors, headach, giddiness, and stern looks. Tongue white, with a black streak in the middle, prostration of strength, much thirst, belly costive, pulse weak and small, had three carbuncles in his arm, with a line of communication between them.

R Calomel gr. x.

Made an incision in the form of a cross into the carbuncles, and applied the dressing of bark, camphor, and turpentine. Ordered him broth and wine.

Towards evening the calomel had purged him, and he discharged a nest of worms (*cavo di vermi*). Symptoms nearly the same in the evening.

4th. Has vomited a quantity of bilious sordes. Walks like a drunken man. Has muttering delirium, thirst, which nothing can quench, and stammers in his speech.

Ordered the effervescent draught with laudanum, also the bark mixture, and continued the dressing to the carbuncles as yesterday.

Towards evening, as the vomiting returned, the effervescent draught was repeated. Blisters were applied, (he does not mention where,) and sinapisms.

5th. The vomiting has ceased, but there is an extreme debility and difficulty in breathing (*anxietate di respirar*). The tongue is a little cleaner.

Ordered him a draught with camphor and laudanum, and the dressing to the carbuncle.

6th. This morning the symptoms are milder. The delirium almost gone. The pulse still weak, but the difficulty of breathing gone.

Ordered to take the pulv. cinchonæ one ounce in the day. Continued the same dressing to the carbuncles, which begin to throw off the eschars. He takes two pints of wine, with what nourishment he is able.

7th. He begins to speak plain, and is getting better. Cont.

8th. Goes on favourably. Cont.

9th. Pulse natural. Appetite improving, and eyes natural. Cont.

13th. The eschars have fallen off from the carbuncles, which are dressed as common sores. He was cured on the 16th of March.

Fifty days after his cure, a bubo made its appearance in his groin, but without other symptoms of plague, and unaccompanied with fever. It came afterwards to suppuration, and healed kindly in a few days. I am in doubt whether this was a pestilential bubo or not.\*

#### CASE XXX.

Feb. 22nd. Spiro Coluri, aged 26, from Argirades, was admitted into the hospital, with the following symptoms: headach, giddiness, prostration of strength, white tongue, vomiting dark matter, like grumous blood, pulse scarcely to be felt, with a bubo in the groin, and a carbuncle over the pubes. Had been ill for four days before he entered the hospital.

Ordered to take two ounces of the pulv. cinchonæ mixed with two pints of wine, and to take as much of it as he could.

Ordered to take 20 drops of the elixir of Paracelsus, to be repeated in six hours. A blister was applied to the bubo, and afterwards the emollient poultice.

23rd. (The fifth day of the complaint) the vomiting has stopped, and the bubo seems as if it would come to suppuration. Extreme debility. Continue the bark, mixture, and poultice.

24th. Pulse stronger, and the other symptoms diminishing. Wine increased to three pints, and what nourishment he can take.

\* His words are: "Dopo cinquanta giorni ch'era guarito, gli comparve un bubone all'inguine, ma senza sintomi pestilenziali, e senza febbre; che venne a suppurazione, e guarì in pochi giorni. Sono indeciso se questo era bubone pestilenziale, o no."

I myself remember seeing this boy at the time he had the bubo, and was very much struck with the case. The appearances were as the Doctor has briefly related them, and the boy got well in a few days.

25th. The patient is better, and the unfavourable symptoms are gone off. Opened the bubo. Cont.

26th. From day to day he got better, and gained strength. He was perfectly cured by the 1st of May.

#### CASE XXXI.

March 12th. Marina Vlassi, 24 years old, from Critica, was admitted into the hospital, with headach, giddiness, tongue foul and yellowish, eyes stern, and like glass, muttering delirium, pulse quick and small, and scarcely to be felt. Had two carbuncles on her thighs.

Ordered her one ounce of the pulv. cinchonæ, made incisions into the carbuncles, and dressed them in the usual manner. Ordered whatever nourishment she could take.

13th. A state of lethargy has come on, and she seems not to know what is going on. Ordered her the camphor draught with 20 drops of the volatile alkali.

14th. Her extremities are cold, in other respects much the same. Repr. haust. Sinapisms applied to her feet, and blisters to other parts of her body, (it is not mentioned where.)

15th. Little alteration. Cont.

16th. The lethargic state wearing off, and she begins to be sensible. Cont. She takes the medicines, drinks wine, and her extremities are becoming warm.

17th. She complains grievously of pain and burning heat in the carbuncle. Her tongue begins to be clean.

Ordered her a mixture of one ounce of bark, and two drachms of serpentaria, two pints of wine and broth, &c.

18th. Much as yesterday. Cont.

19th. She appears better, is gaining strength, and is perfectly sensible. Cont. Ordered her broth, &c.

20th. Considerably better; pulse still weak.

21st. The eschar has fallen off. Cured the 25th of May.

#### CASE XXXII.

Vincenzo Morelli, aged 28, one of the felons, March 25th, admitted as a hospital patient with pyrexia; ushered in by previous cold rigors,

headach, giddiness, foul tongue, vomiting of bilious sordes; pulse weak and frequent, with two inguinal buboes.

Ordered the effervescent draught, two small blisters to the buboes; and after their removal, the emollient poultices. Towards evening he was ordered the *mist. cinchonæ*.

26th. The vomiting continues; eyes sparkling and inflamed; intolerable thirst; cannot stand erect on his feet; and if he attempts to do so, is ready to fall like a drunken man. Complains of a burning heat within him; buboes highly inflamed; continue the bark mixture, with the addition of a drachm of the *serpentaria*; continue also the effervescent draught, and the poultices to the buboes. Ordered two pints of wine and broth.

27th. Delirium has come on, and he is insensible to what is doing; two carbuncles have made their appearance, one on the pubes and another on the right eye.

To the bark mixture is added a drachm of camphor, and twenty drops of volatile alkali. Made an incision in the carbuncle on the pubes, and dressed it in the usual manner. Washed that on the eye with a decoction of bark and a little of the camphorated spirits of wine.

28th. Little alteration. Cont.

29th. No material alteration.

30th. Delirium and vomiting gone; is more sensible. On my asking him if he knew me, he replied, I know you very well, you are the doctor. Fever still continues, but the intense heat, of which he complained, is gone. He still complains of a throbbing in the buboes, and a sensation of burning heat in the carbuncles. The bark mixture without the camphor is continued, and also the wine.

April 1st. Better, but still the febrile symptoms continue. He is extremely debilitated, and the buboes are enlarged, but still hard; considerable pain and burning heat in the eye. Cont.

2nd. Little alteration. Cont.

3rd. The eschar has begun to come off from the carbuncle in the pubes; the buboes seem to be proceeding towards suppuration; complains very much of the insupportable pain in his eye. Cont.

4th. No material alteration.

5th. The pain of the eye is lessened. Cont.

6th. The febrile symptoms going off; the bubo has come to a supuration; I opened it, and dressed it with digestive. (He says nothing of the other bubo.)

7th. The carbuncle in the eye begins to discharge a little ichorous matter, and small portions of the scab. Cont.

8th. The patient is getting better, and the sore in the eye begins to dry up; fever entirely gone. Cont.

He continued to get better; and by the 25th of May he was perfectly cured; with the loss, however, of his right eye.

## NOTES.

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### NOTE A, TO PAGE 53.

AMONG a great variety of plague papers, I find the following letter addressed to my late highly valued friend, the late Gen. Sir William H. Clinton, in the year 1825, at the time when an abrogation of the quarantine laws was seriously pushed forward by the *anti-contagionists*; and I have reason to believe that it was transmitted to Mr. Peel, when Secretary of State for the Home Department. Since that time I have not seen sufficiently good reasons to alter my opinion of the character of plague as to its being a contagious disease.

Whether or not this letter had any effect on the question I cannot pretend to say, but I did not hear for years afterwards that active steps had been taken to repeal the quarantine laws.

Roedelheim, near Frankfort, April 23rd, 1825.

MY DEAR GENERAL,—I have been favoured with your letter of the 12th inst., for which accept my best thanks; and I shall lose as little time as possible in replying to it.

Before I received it I had seen in the London newspapers, that it was the intention of government to repeal the laws of quarantine. This is a grave and important measure, and I earnestly hope, that before they decide on such a step, they will have sifted the matter to the bottom, and not be led away by any theoretical speculations, however specious and plausible they may be; it is practical men whose experience and opinions ought to have weight, and not speculative theorists, for the plague, both in its character and consequences, is unlike any other disease with which we are acquainted.

My opinion of plague is, that it is a contagious disease—that is, a disease capable of being transported from one place to another, not only by personal contamination, but also by clothes and other matters;



and I ground this opinion not only on a good deal of consideration of the subject, but also from experience in Egypt, and more particularly, from that in the late plague in Corfu, on which occasion I was appointed superintendent of the plague district of Lefchimo by the late Sir Thomas Maitland.

In this plague, the malady was traced (as clearly as anything of the kind could well be,) from its landing by means of smuggled goods at a place called the Casa Politi, which goods were brought from the coast of Albania, where the plague was raging, to fourteen villages of Lefchimo, constantly following the line of communication; whilst the remaining villages, amounting to thirteen, and which had no intercourse with those that were impested, remained free from plague from first to last. Now, when I was employed on the spot in investigating this subject, which was one of much anxiety to me, I could discover no cause, either from locality or other circumstances, why the other villages also were not impested, except that they had not had intercourse with the plague villages.

But if I myself had doubts of the contagious nature of the plague, the plan of operations which was adopted on that occasion to crush and finally to eradicate the malady, and which was completely successful, would remove those doubts; that plan was cutting off the communication not only betwixt the impested and the healthy part of the island, but betwixt the impested and the non-impested villages in the district, in addition to separation, segregation, and subsequent purification. It is true, that in more than one instance, the plague started in some of the villages where it was supposed to have been got under, and when we had no reason to expect such an event; but I am convinced, from minute inquiry made at the time, that in every instance, the misfortune was attributable to a violation of quarantine, either by robbing the infected houses, from which the goods had not been removed, or by clandestine intercourse, which, in almost every instance, was satisfactorily proved on the spot at the time, both of which are sometimes very difficult, and almost impossible entirely to prevent. The disease also several times attacked the troops employed, and was traced, even more satisfactorily than amongst the natives, to have been owing to the causes mentioned.

In the plague of Cephalonia, which broke out twice after we had

subdued it in Corfu, and were going on with our quarantines, the disease was also imported from Albania, by some Greeks who were returning from thence to join their families, and who had not properly purified during the time they were in quarantine, and had concealed some articles of wearing apparel which they had brought with them. When set at liberty, they went home to their families, where they very shortly fell sick, and, as I was informed, two of them died suddenly. The disease thus introduced spread quickly amongst these people, and amongst others having intercourse with them, and sudden and alarming deaths occurred. Here, however, the disease was soon ascertained to be plague, which was not the case in that of Corfu. The most prompt and vigorous measures were adopted as soon as possible, and the disease was put down *vi et armis*, and has not appeared since. In both these instances it appears to me that the plague was imported; at least, nothing of the kind was known to exist before the arrival of these men, and I confess I am unable in any other way to explain its appearance; one thing, however, is I think quite certain, that in both these instances, the plague being considered as contagious, was effectually put a stop to, and finally extirpated, by acting on that principle; and my opinion undoubtedly is, that if it had not been interfered with, in both cases it would have been more general, consequently more fatal, and would not have disappeared so soon.

In giving you this brief account of the recent plagues in Corfu and Cephalonia from my own experience, and the most correct information I could gain on the spot, I beg to assure you that I have no favourite theory to support, and that I am only actuated by a sense of duty.

I may add, by the way, that I am convinced the air during the prevalence of plague is not contaminated, I mean pestilentially; if that had been the case, I think some of the military and medical officers employed in these services must have caught the disorder, whereas not one of them did; except three medical gentlemen, whose unhappy duty it was to attend the plague patients, and all the three died of plague before I arrived; whilst I mention this circumstance, I may add that another who had the care of the patients in the pest-hospital, and was in it night and day, seemed to be absolutely invulnerable to the disease, although in constant communication with his patients, and remained in health from beginning to end. It will be observed, that

I attribute the exemption of the other medical officers, and who were stationed among the impested villages, to the carefully avoiding all contact either direct or indirect with the impested, and which I have no doubt was rigidly attended to. These medical officers amounted to thirteen.

I am not personally acquainted with Dr. McLean, and only know him by his writings; but I am of opinion that the causes to which he attributes the plague, are in themselves incapable of producing the plague, (which, by the way, he himself caught, and by contact too;) if they were, I doubt whether we should ever be free of it in some part or other of civilized Europe. He seems to me to have gone to investigate the nature of plague as a declared anti-contagionist, and to have turned every circumstance to the support of that hypothesis. A pest-hospital may be a very good place to study the cure of plague, but it is hardly the place to ascertain its contagious nature, and much of its internal character.

You will be so good as to observe that what I have said refers entirely to plague, and not to the yellow fever or other diseases.

I am not well informed from experience on the state of the quarantine laws in France and Spain, or indeed throughout Europe, or of the mode of purification adopted for goods coming from suspected places, but it appears to me that government ought to be well informed on these points before they take any decided steps in the important measure in question, or before they overturn a system sanctioned for some centuries, and on which we lately have had occasion to act, with decided benefit to mankind. In thus giving my opinion, I am far from thinking that the quarantine laws are perfect; but, on the contrary, they require to be looked into, and I have no doubt may be ameliorated; and as the subject is one of vital importance to mankind, every part of it ought to be dispassionately and carefully inquired into.

I should like to see a copy of the Bill for the repeal of the quarantine laws; perhaps a copy could be sent to me through our Minister at Frankfort, who knows my address. I fancy we shall remain here about another month, and shall be happy to hear from you.

I have seen with great pleasure your appointment as Lieutenant-

General of the Ordnance, and heartily congratulate you on the same. Mrs. White begs to be kindly remembered. Excuse this long, though perhaps, at this moment, not uninteresting letter, and

Believe me to remain, very faithfully yours,

A. WHITE.

Lieut.-Gen. Sir William Clinton, M.P.,  
Queen Ann-street, Cavendish-square, London.

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NOTE B, PAGES 59—70.

I HAVE said elsewhere, that the origin of plague is veiled in impenetrable mystery, but that Egypt has been, almost by universal consent, considered as its source, and the hot-bed from whence it has proceeded; the grounds on which this opinion has been formed I cannot tell; perhaps it may have reference to the ten plagues mentioned in the sacred Scriptures.

Whilst this work was passing through the press, my attention has been called to this subject by an article in the "British and Foreign Medical Review" (No. 37,) on Plague, into which this point is introduced. The article goes on to state that, whenever plague appeared in Alexandria, that it has always been traced to come from some villages of the Delta; that in these villages the dead are buried above ground, in receptacles which are neither more or less than a cottage with one door and no windows; that in these places the dead are laid like herrings in a barrel, &c.

Now supposing this to be the fact, which I can neither affirm nor deny, (never having even heard anything of these receptacles when I was in Egypt,) I should think it follows as a matter of course, that whenever they are interfered with, plague will make its appearance amongst some of the persons employed in burying the dead and depositing the bodies there. And is this clearly ascertained to be the fact? If it is, then must plague always exist more or less among these villages after burials. And is this clearly proved to be the case also? I think I am not assuming too much on this point.

Were we but perfectly satisfied on these two important points, we have grounds for coming to the conclusion that at length this hidden

mystery is unveiled, and that the clouds which formerly obscured this subject have been dissipated. We may then look forward with some confidence to destroy the lion in his den, and thus prevent him afterwards from raising up his head; but until then, I fear we cannot *abrogate* the laws of quarantine, although even with our present knowledge we may *ameliorate* and *modify* them.

A question has been asked in the same article to which I have alluded, Why should Morocco and the Barbary states, where plague is never engendered, be debarred from the benefits of free commercial intercourse, whilst Algiers enjoys free pratique with Tunis and Tripoli on the one side, and Morocco on the other?

Without entering fully into this subject, perhaps I may be permitted to say that Algiers is now a French colony, and will naturally adopt precautionary measures for their own preservation; that the state of warfare in which they have been engaged for several years past prevents them in some degree from putting the quarantine laws in force. There may have been no plague in these coasts for a length of time; but when we know that the coast of Barbary has been for years continuously afflicted with plague, and kept up with extraordinary mortality, caused, it is probable, by want of purification of the impested effects, we ought not, for mere experiment, to do away with the laws of health, until we have better grounds for doing so than we have at present.

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NOTE C, PAGE 77.

IT is a curious but important fact, that what I had mentioned rather in a speculative way above twenty years ago, when I was composing this work, should now literally be fulfilled; for I have learned from unquestionable authority, as well as from written documents, that the present enlightened Viceroy has for many years been acting on a system of quarantine restraint, with the view of preserving his army and navy from plague, but more particularly the latter, in which, perhaps, it was more easily to be effected; and the result has been, what indeed might be expected—viz., that he has prevented the malady from getting on board his ships of war on occasions when it was making

fearful havoc around them. This was particularly the case when they were stationed at Alexandria.

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NOTE D, PAGE 127.

I am not informed of the mode of purification carried into effect in the case of the ship of war *L'Eclair*, lately arrived from the coast of Africa, in which the mortality was so appalling; but my belief is, that if the plan here recommended had been adopted, many valuable lives would have been saved.

I am aware that the malady on board that unfortunate vessel was not considered to be the plague, but it was undoubtedly a fever of a very malignant character; yet, nevertheless, although not plague, I give it as my opinion, that had the crew and all their effects been landed and placed under canvass, or insulated in some way or other for a time, the fever would not have been so fatal to both officers and men as it was, and many lives might thereby have been spared to the country.

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NOTE E, PAGE 161.

If these impested things had not been touched, but had been carefully dragged out with the long iron pincers or hooks, exposed to the purifying effects of the air for some days, and afterwards to a heat of about  $60^{\circ}$ , I have little doubt but that they would have been perfectly disinfected, and thus the lives of these unfortunate persons have been saved; or what would have been attended with still less risk, and have been more immediate in its effect, if they had been put into a caldron of hot water at once, which would have done no injury to them, not only would lives have been saved, but all concerned would have been spared the trouble and anxiety of a prolonged period of quarantine restraint and the expurgation which was the necessary consequence of this sad affair.

## NOTE F, PAGE 272.

The numerous proclamations sent down to me by government were written in the modern Greek and Italian languages, and are in my possession; but being of a local and peculiar character, I have not inserted them, as I was unwilling to enlarge the work unnecessarily—it will be seen, too, that I have curtailed both the matter and management, as much as I was able, consistently with the nature of the work; but I believe, in doing so, I have not omitted anything essentially necessary for the elucidation of the subject.

THE END.



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