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*** START OF THE PROJECT GUTENBERG EBOOK A DISCOURSE ON THE PLAGUE ***

A

DISCOURSE

ON THE

PLAGUE:

BY

RICHARD MEAD,

Fellow of the College of Physicians, and of the Royal Society; and Physician to his Majesty.

The NINTH EDITION corrected and enlarged.

LONDON,

Printed for A. Millar, against *Catharine-Street*, in the *Strand*: And J. Brindley in *New-Bond-Street*. MDCCXLIV.

TO THE
RIGHT HONOURABLE
James Craggs, Esq;

ONE OF His Majesty's Principal Secretaries of State.

SIR

 ${f I}$ MOST humbly offer to You my Thoughts concerning the *Prevention of the Plague*, which I have put together by your Command. As soon as you were pleased to signify to me, in his

Majesty's Absence, that their Excellencies the *Lords Justices* thought it necessary for the publick Safety, upon the Account of the *Sickness* now in *France*, that proper Directions should be drawn up to defend our selves from such a Calamity; I most readily undertook the Task, though upon short Warning, and with little Leisure: I have therefore rather put down the *principal Heads of Caution*, than a *Set of Directions in Form*.

The first, which relate to the performing Quarantaines, &c. You, who are perfectly versed in the History of Europe, will see are agreeable to what is practised in other Countries, with some new Regulations. The next, concerning the suppressing Infection here, are very different from the Methods taken in former Times among Us, and from what they commonly do Abroad: But, I persuade my self, will be found agreeable to Reason.

I most heartily wish, that the wise Measures, the *Government* has already taken, and will continue to take, with Regard to the *former* of *these*, may make the *Rules* about the *latter* unnecessary. However, it is fit, we should be always provided with proper *Means of Defence* against so terrible an *Enemy*.

May this short *Essay* be received as one Instance, among many others, of the Care, you always shew for Your Country; and as a Testimony of the great Esteem and Respect, with which I have the Honour to be,

SIR

Your most obedient, and Most humble Servant,

R. MEAD.

Nov. 25. 1720.

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THE PREFACE.

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THIS Book having at first been written only as a Plan of Directions for preserving our Country from the Plague[1] was then very short and concise. An Act of Parliament being immediately after made for performing Quarantaines &c. according to the Rules here laid down, it passed through seven Editions in one year without any Alterations. I then thought proper to make some Additions to it, in order to shew the Reasonableness of the Methods prescribed, by giving a more full Description of this Disease, and collecting some Examples of the good Success which had attended such Measures, when they had been put in Practice. At the same time I annex'd a short Chapter relating to the Cure of the Plague; being induced thereto by considering how widely most Authors have erred in prescribing a Heap of useless and very often hurtful Medicines, which they recommend under the specious Titles of Antidotes, Specifics and Alexipharmacs: hoping that the great

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Resemblance, which I had observed between this Disease and the Small Pox, would justify my writing upon a Distemper which I have never seen.

INDEED the Small Pox is a true Plague, tho' of a particular kind, bred, as I have shewn all Pestilences are, in the same hot Egyptian Climate, and brought into Asia and Europe by the way of Commerce; but most remarkably by the War with the Saracens, called the Holy War, at the latter end of the eleventh and the beginning of the twelfth Century[2]. Ever since which time the morbific Seeds of it have been preserved in the infected Cloaths and the Furniture of Houses: and have broken out more or less in all Countries, according as the hot and moist Temperature of the Air has favoured their Spreading and the Exertion of their Force. The Measles is likewise a Plague sui generis, and owes its Origin to the same Country.

I have now revised my little Work once more: and though I cannot find any reason to change my Mind as to any material Points which regard either the Preventing or the Stopping the Progress of Infection; yet I have here and there added some new Strokes of Reasoning, and, as the Painters say, retouch'd the Ornaments, and hightened the Colouring of the Piece.

THE Substance of the long Preface to the last Edition is as follows.

I have insisted more at large upon the Infection of this Disease, than I could ever have thought needful at this time, after Europe has had Experience of the Distemper for so many Ages; had I not been surprized by the late Attempts of some Physicians in France to prove the contrary, even while they have the most undeniable Arguments against them before their Eyes. In particular, I cannot but very much admire to see Dr. Chicoyneau, and the other Physicians, who first gave us Observations on the Plague, when at Marseilles, relate in the Reflections, they afterwards published upon those Observations, the Case of a Man, who was seized with the Plague, upon his burying a young Woman dead of it, when no one else dared to approach the Body; and yet to see them ascribe his Disease, not to his being infected by the Woman, but solely to his Grief for the Loss of her, to whom he had made Love, and to a Diarrhœa, which had been some time upon him[3]. No question but these concurred to make his Disease the more violent; and perhaps even exposed him to contract the Infection: but why it should be supposed, that he was not infected, I cannot imagine, when there was so plain an Appearance of it. I am as much at a Loss to find any Colour of Reason for their denying Infection in another Case, they relate, of a young Lady seized with the Plague, upon the sudden Sight of a Pestilential Tumor, just broke out upon her Maid; not allowing any thing but the Lady's Surprize to be the Cause of her Illness[4].

THE Truth is, these Physicians had engaged themselves in an Hypothesis, that the Plague was bred at Marseilles by a long Use of bad Aliment, and grew so fond of their Opinion, as not to be moved by the most convincing Evidence. And thus it mostly happens, when we indulge Conjectures instead of pursuing the true Course for making Discoveries in Nature.

I KNOW they imagine this their Sentiment to be abundantly confirmed from some Experiments made by Dr. Deidier[5] upon the Bile taken from Persons dead of the Plague: which having been either poured into a Wound made on purpose in different Dogs, or injected into their Veins, never failed, in many Trials, to produce in them all the Symptoms of the Pestilence, even the external ones of Bubo's and Carbuncles. One Dog, upon which the Experiment succeeded, had been known, for three Months before, to devour greedily the corrupted Flesh of infected Persons, and Pledgets taken off from Pestilential Ulcers, without receiving any Injury. From hence they conclude[6] that this Disease is not communicated by Contagion, but originally bred in the Body by the Corruption of the Bile. This Corruption, they say, is the Effect of unwholsome Food; and the Bile thus corrupted produces a Thickness and a Degree of Coagulation in the Blood, which is the Cause of the Plague: Tho' this they allow to be inforced by a bad Season of the Year, and the Terrors of Mind and Despair of the Inhabitants.

THESE Experiments are indeed curious, but fall very short of what they are brought to prove. The most that can be gathered from them is this: That Dogs do not, at least not so readily, receive Pestilential Infection from Men, as Men do from one another: And also, that the Bile is so highly corrupted in a Body infected with the Plague, that by putting it into the Blood of a Dog it will immediately breed the same Disease.

BUT it does not follow from hence, that the Bile is the Seat of the Disease, or that other Humors of the Body are not corrupted as well as this. I make no question but the whole Mass of Blood is, in this Case, in a State of Putrefaction; and consequently that all the Liquors derived from it partake of the Taint.

ACCORDINGLY it appeared afterwards from some Experiments made by Dr. Couzier[7], that not only the Blood, but even the Urine from an infected person, infused into the crural Vein of a Dog communicated the Plague. I will venture to affirm, that if, instead of Bile, Blood, or Urine, the Matter of the Ulcers had been put into a Wound made in the Dog; it would have had at least an equally pernicious Effect: As may well be concluded from the Inoculation of the Small Pox.

AS to the Dog's eating the corrupted Flesh and purulent Matter of the Patients; it ought to have been considered that there are some Poisons very powerful when mixed immediately with the Blood, which will not operate in the Stomach at all: As in particular the Saliva of the

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mad Dog and the Venom of the Viper[8]. And therefore Dr. Deidier himself, some Months after his former Experiments, found that pestiferous Bile itself was swallowed by Dogs without any Harm[9].

THE right Inference to be made from these Experiments, I think, would have been this: That since the Blood and all the Humors are so greatly corrupted in the Plague, as that Dogs (tho' not so liable to catch the Distemper in the ordinary way of Infection, as Men are) may receive it by a small Quantity of any of these from a diseased Subject being mixed with their Blood; it may well be supposed, that the Effluvia from an infected Person, drawn into the Body of one who is sound, may be pestiferous and productive of the like Disorder.

MY Assertion, that these French Physicians have before them the fullest Proofs of this Infection, not only appears from these Instances of it, I have observed to be recorded by themselves; but likewise from what Dr. le Moine and Dr. Bailly[10] have written, of the Manner in which the Plague was brought to Canourque in the Gevaudan: as also from an amazing Instance they give us of the great Subtilty of this Poison, experienced at Marvejols: where no less than sixty Persons were at once infected in a Church, by one that came thither out of an infected House. The Plague was carried from Marseilles to Canourque, as follows. A Gally-Slave, employed in burying the Dead at Marseilles, escaped from thence to the Village of St. Laurent de Rivedolt, a League distant from Correjac: where finding a Kinsman, who belonged to the latter Place, he presented him with a Waistcoat and a pair of Stockings he had brought along with him. The Kinsman returns to his Village, and dies in two or three Days; being followed soon after by three Children and their Mother. His Son, who lived at Canourgue, went from thence, in order to bury the Family; and, at his Return, gave to his Brother-in-law a Cloak he had brought with him: the Brother-in-law laying it upon his Bed, lost a little Child which lay with him, in one Day's Time; and two Days after, his Wife; himself following in seven or eight. The Parents of this unhappy Family, taking Possession of the Goods of the Deceased, underwent the same Fate.

ALL this abundantly shews how inexcusable the foresaid Physicians in France are, in their opposing the common Opinion that the Plague is contagious. However, I have paid so much Regard to them, as to insist the more largely upon the Proof of that Contagion; lest the Opinion of those, who have had so much Experience of the Disease, might lead any one into an Error, in an Affair of such Consequence, that all my Precepts relating to Quarantaines, and well nigh every particular Part of my Advice, depends upon it: For if this Opinion were a Mistake, Quarantaines, and all the like Means of Defence, ought to be thrown aside as of no use. But as I continue persuaded, that we have the greatest Evidence, that the Plague is a contagious Disease; so I have left, without any Alteration, all my Directions in respect to Quarantaines: in which, I hope, I have not recommended any Thing prejudicial to Trade; my Advice being very little different from what has been long practised in all the trading Ports of Italy, and in other Places. Nay, were we to be more remiss in this than our Neighbours, I cannot think but the Fear they would have of us, must much obstruct our Commerce.

BUT I shall pursue this Point no farther: the rather because a very learned Physician among themselves has since, both by strong Reasoning and undeniable Instances, evinced the Reality of Contagion[11].

IN a word, the more I consider this Matter, the more I am convinced that the Precepts I have delivered, both with regard to the Preventing the Plague from coming into a Country, and the Treatment of it when present, are perfectly suitable to the Nature of the Distemper, and consequently the fittest to be complied with. But how far, in every Situation of Affairs, it is expedient to grant the Powers, requisite for putting all of them in Practice, it is not my proper Business, as a Physician, to determine. No doubt, but at all Times, these Powers ought to be so limited and restrained, that they may never endanger the Rights and Liberties of a People. Indeed, as I have had no other View than the Publick Good in this my Undertaking, and the Satisfaction of doing somewhat towards the Relief of Mankind, under the greatest of Calamities; so I should not, without the utmost Concern, see that any Thing of mine gave the least Countenance to Cruelty and Oppression.

BUT I must confess, I find no Reason for any Apprehensions of this kind, from any thing I have advanced. For what extraordinary Danger can there be, in lodging Powers for the proper Management of People under the Plague, with a Council of Health, or other Magistrates, who shall be accountable, like all other Civil Officers, for their just Behaviour in the Execution of them? Though this I must leave to those, who are better skilled in the Nature of Government. But sure I am, that by the Rules here given, both the Sick will be provided for with more Humanity, and the Country more effectually defended against the Progress of the Disease, than by any of the Methods heretofore generally put in Practice, either in our own, or in other Nations.

THE Usage among Us, established by Act of Parliament, of Imprisoning in their Houses every Family the Plague seizes on, without allowing any one to pass in or out, but such as are appointed by Authority, to perform the necessary Offices about the Sick, is certainly the severest Treatment imaginable; as it exposes the whole Family to suffer by the same Disease; and consequently is little less than assigning them over to the cruellest of Deaths: As I have shewn in the Discourse.

THE Methods practised in France are likewise obnoxious to great Objections. Crowding the Sick together in Hospitals can serve to no good Purpose; but instead thereof will promote

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and spread the Contagion, and besides will expose the Sick to the greatest Hardships. It is no small Part of the Misery, that attends this terrible Enemy of Mankind, that whereas moderate Calamities open the Hearts of Men to Compassion and Tenderness, this greatest of Evils is found to have the contrary Effect. Whether Men of wicked Minds, through Hopes of Impunity, at these Times of Disorder and Confusion, give their evil Disposition full Scope, which ordinarily is restrained by the Fear of Punishment; or whether it be, that a constant View of Calamities and Distress does so pervert the Minds of Men, as to blot out all Sentiments of Humanity; or whatever else be the Cause: certain it is, that at such Times, when it should be expected to see all Men unite in one common Endeavour, to moderate the publick Misery; quite otherwise, they grow regardless of each other, and Barbarities are often practised, unknown at other Times. Accordingly Diemerbroek informs us, that he himself had often seen these Hospitals committed to the Charge of Villains, whose Inhumanity has suffered great Numbers to perish by Neglect, and that sometimes they have even smothered such as have been very weak, or have had nauseous Ulcers difficult to cure. Insomuch, that in many Places the Sick have chose to lay themselves in Fields, in the open Air, under the slightest Coverings, rather than to fall into the barbarous Hands of those who have had the Management of these Hospitals[12].

THE rigorous Restraints observed at their Lines, are attended also with the like Inconveniences. For by absolutely denying a Passage to People from infected Places, they subject to the same common Ruin, both from the Disease, and from the Disorders committed in such Places, those, whom their Fortunes would otherwise furnish with Means of escaping: and this, no doubt, in every free Country, must be looked upon as an unjust Infringement of Liberty, and a Diminution of Mens natural Rights, not to be allowed.

NOW, under all these Difficulties, I cannot but with the greatest Satisfaction observe, that my Precepts are well nigh, nay altogether free from them; and yet a proper Regard is had to the Disease. As soon as ever the Sick are grown numerous, I advise, that they be left in their Houses, without any of those unmerciful Restraints heretofore put upon them and the Families they belonged to. I might, perhaps, have justly directed, that whenever those, who frequent or dwell in an infected House, go abroad, they should be obliged to carry about them a long Stick of some remarkable Colour, or other visible Token, by which People may be warned from holding too free Converse with them: this being the Practice on these Occasions, as I have heard, in some Places. The Removal of the Sick from their Houses, I advise only at the beginning, when it will be attended with none of the forementioned Inconveniences: but is what, for the most Part, those Sick should themselves desire. It has hardly ever been known, when the Disease did not first begin among the Poor. Such therefore only will be subject to this Regulation, whose Habitations by the Closeness of them are in all Respects very incommodious for diseased Persons. So that my Advice chiefly amounts to the giving Relief to the Poor, who shall first be infected, by removing them into more convenient Lodgings than their own, where they shall be better provided for than at home. And the Removal of them will not be attended with that Danger, it is natural for the Unskilful to apprehend in so dreadful a Disease; because it is every Day practised in the Small-Pox, with great Safety. And whereas I have before observed, that People have often suffered in the publick Hospitals by the Inhumanity of their Attendants; in this Case, little or nothing of that kind is to be feared: for I have proposed this Removal of the Sick only, at a Time, when a long Series of Calamities has not yet bred Disorders and Hardness of Heart. Nay, it may be reasonably expected that they should rather be used with the tenderest Care, when every one shall believe the Stopping of the Distemper, and consequently their own Safety to depend upon it. And as this Treatment will be both safe and beneficial to the Sick, so it will be much more evidently for the Advantage of the sound Part of the Family, and of those who live near them. For as the poorer Sort of People subsist by their daily Labour, no sooner shall the Plague have broke out among them, but the sick Families, and all their Neighbours likewise, if not relieved by the Publick, shall be abandoned to perish by Want, unless the Progress of the Distemper put a shorter Period to their Lives.

THIS Observation, that the Plague usually begins among the Poor, was the Reason, why I did not make any Difference in my Directions for removing the Sick, in regard to their different Fortunes, when I first gave my Thoughts upon this Subject: which however, to prevent Cavils, I have at present done; and have shewn what Method ought to be taken, if by some unusual Chance, the Plague should at the beginning enter a wealthy Family. And, in this Case, I have advised nothing, which I would not most readily submit to my self: For I should much rather chuse to be thus removed from my Dwelling, with the Distemper upon me, to save my Family, than they, by being shut up with me, should be all exposed to perish. And as this Way of treating diseased Families is the most compassionate, that can be devised with any regard to the restraining the Progress of the Distemper; so it is still much preferable to what was formerly practised amongst us, on other Accounts. For, according to what I have advised, it is only required, to remove some few Families at the beginning of the Disease: whereas the Method of shutting up Houses was continued through the whole Course of the Sickness. Perhaps the Plague, under this Management, may not reach half a Score Families: I have given Instances, where it has thus been stopt in One.

WHAT relates to the inclosing Infected Places with Lines, I have so regulated, that no body can be subjected to any Degree of Hardship thereby: for I have provided, that free Liberty be given to every one, that pleases, to depart from the Infected Place, without being put to any other Difficulty, than the Performance of a short Quarantaine of about three Weeks, in

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some Place of Safety. So that no one shall be compelled to continue in the infected Town, whom his own Circumstances will not confine.

THIS part of my Directions is not so general as the rest, because some Places are too great to admit of it: which occasioned my proposing it with a Restriction[13]. But as this is a great Inconvenience to the rest of the Country, so it is far from being any Advantage to the Place thus left unguarded. For when all, who leave an infected Place, carry with them Certificates of their having submitted to such Quarantaine, as may remove all Cause of Suspicion, Travelling will be much more safe and commodious, than otherwise it can be. For want of this, when the Plague was last at London, it was difficult to withdraw from it, while the Country was every where afraid of Strangers, and the Inns on the Roads were unsafe to lodge in for those, who travelled from the City; when it could not be known, but Infection might be received in them by others come from the same Place.

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AND from hence it happened that the Plague, when last in England, though much more moderate, and though it continued not above one Year in the City of London, did yet spread it self over a great Part of England, getting into Kent, even as far as Dover; into Sussex, Hampshire, Dorsetshire, Essex, Suffolk, Norfolk, Cambridgeshire, Northamptonshire, Warwickshire, Derbyshire, and, to mention no more, as far as Newcastle[14].

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THUS, as I have examined through the Course of the following Treatise, with all possible Care, into the Agreement of my Precepts with the Nature of the Plague; so I have now considered how far they can conveniently be put in Practice.

BUT it is time to have done with a Subject by no means agreeable.

I shall therefore conclude all I have to say upon this Matter, with a Paper well deserving Perusal, which is come to my Hands, since the following Sheets were finished; and therefore too late to be made use of in its proper Place: for which Reason, I shall give it here entire. This Paper contains the Methods taken by his late Majesty, when the Plague in the Year 1712. had entered his Dominions in Germany. It was delivered to me from Mr. Backmeister, the Secretary at Hanover to his Majesty for the German Affairs, who was the Person, that issued out the Orders that were given. This Relation I requested from the Secretary, being desirous to know how far the Measures then taken, agreed with my Directions: because I had been informed, that they were very successful. And I have the Satisfaction to find them very conformable to my Precepts; and that they had so much the desired Effect, as to stop the Plague from spreading beyond the small Number of Towns and Villages recited at the beginning of the Paper.

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Hanover, Feb. 10. N. S. 1722.

Towns.

Lunenbourg, Haarbourg, twice. Zell,

VILLAGES.

Nienfeldt, Trebel,
Holdenstedt, Brinckem,
Melle, Goldenstedt,
Bienenbuttel, Fallingbostel.

Achem,

IN the last Place, three labouring Men, who had made their Escape from Hamburgh, got into a Barn in the Night, and were found dead there the next Morning, with Marks of the Plague upon them: but the Progress of the Infection was stopt by burning the Barn.

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AS soon as any Village was infected, the first Thing done was to make a Line round it, thereby to hinder the Inhabitants from communicating with others. Those who were thus shut up, were immediately furnished with Provisions: a Physician was sent to them; and especially some Surgeons; a Minister to officiate particularly to Persons infected; a Nurse; Buriers; &c.

THE principal Management of this whole Affair consisted in two Things: 1. In separating the Sick from the Sound; and 2. In cleaning well the Houses which had been infected.

WHEN any Person was taken ill, he was obliged to leave his Lodging, and retire into a Lazaretto or Hospital, built for that Purpose. The other Persons, who appeared to be well in the same House, were obliged, when it was practicable, to strip themselves in the Night quite naked, to put on other Clothes, which were provided for them, and to go to perform Quarantaine in a House appointed for it, after having burnt the Clothes, they had put off. Persons were made to change their Clothes, and those they put off were burnt, as often as was judged necessary: For Example, this was done when those who had recovered their

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Health, came out of the Lazaretto and went into Quarantaine; and likewise, when (after the Disease was ceased) the Women who attended the Sick, the Buriers, and Surgeons, went into Quarantaine.

IN Summer, ordinary Barracks (or Huts) were made for those of the common People, who were obliged to quit infected Houses: which Barracks were afterwards burnt, when they had been made Use of.

AS soon as the People were come out of an infected House, it was nailed up, and Centinels were posted there, that nothing might be stolen out of it. In the Country, when such a House was not of very great Value, and it might be done without Danger, it was burnt, and the Loss was made good to the Owner, at the Expence of the Publick. But in Towns, where this could not be done, without the Hazard of burning the Town, Men were hired to go into the Houses, and bring into the Court-Yard, or before the House, whatever Goods they found in it susceptible of Contagion, and there burn them: but to prevent the Fright which this might raise among the Neighbours, such Goods were sometimes put into the Cart, used to carry off dead Bodies, and so conveyed out of the Town and burnt. At first, the Method taken, was only to bury such Goods deep in the Ground: but it was found by several Examples, that they were dug up again, and that the Infection was thereby renewed. Before People were paid for their Houses and Effects, that were burnt, it was discovered, that they often laid some of their Goods out of the Way, and that the Contagion was spread by them: but after they came to be paid what was reasonable, by the Publick, they willingly let all be burnt, without concealing any thing.

IN Summer, the Cattle were left abroad, and the Inhabitants, who had not the Plague in their Houses were obliged to look after them: In Winter, the Sound Persons were obliged, before they left an infected House, to kill the Cattle belonging to it, and to bury them ten Foot deep in the Ground near the House.

So far the former Preface.

I think it now proper to take Notice, that an Act of Parliament (as above mentioned in this Preface) formed upon the Precepts here delivered, having been passed on December 8, 1720. the two last Clauses in the said Act, relating to the removing of Sick Persons from their Habitations, and the making of Lines about Places infected, were on October 19 of the following Year, repealed.

THIS looks as if the Rules prescribed were not right and just: I must therefore observe, in Justification of myself, that this was not the Case. Nothing was urged in that Repeal against the Reasonableness of the Directions in themselves, more than in these Words: That the Execution of them might be very grievous to the Subjects of this Kingdom. But this I have proved to be quite otherwise.

THE Truth of the Matter is this: Some great Men, both of the Lords and Commons, who were in the Opposition to the Court, objected that the Ministry were not to be intrusted with such Powers, lest they should abuse them; since they might, upon Occasion, by their Officers, either remove or confine Persons not favoured by the Government, on Pretence that their Houses were infected.

VAIN and groundless as these Fears were, yet the Clamours industriously raised from them were so strong, that a great Officer in the State thought fit to oblige his Enemies by giving way to them: and tho' a Motion made in the House of Commons for repealing these two Clauses had just been rejected; yet upon making the same in the House of Lords, with his Consent, the thing was done.

WHETHER private or public Considerations had the greater Share in bringing about this Compliance, I will not determine. Such Counter-Steps will happen in a Government, where there is too much of Faction, and too little of a Public Spirit. This I very well remember, that a learned Prelate, now dead, who had more of Political than of Christian Zeal, and was one who made the loudest Noise about the Quarantaine Bill, frankly owned to me in Conversation, that tho' the Directions were good, yet he and his Friends had resolved to take that Opportunity of shewing their Disaffection to the Ministry.

BUT after all, it contributed not a little to the carrying this Point, that the Plague was now ceased at Marseilles, and a Stop put to its Progress in the Provinces. And I cannot but take notice that this last good Service was done by the same Method, which, tho' in a more moderate way, I have here proposed. For it is well known that the Regent of France did at last set Bounds to the Contagion by Lines and Barriers guarded by Soldiers: which wise Resolution saved not only his own but other Countries from the spreading of a Disease, which seems to have been of as violent a kind as ever was brought into Europe.

HOWEVER, if there were any Severity in Orders of this kind, every Man ought to consider himself as a Member of the Society; by the Laws of which as he receives many Advantages, so he gives up somewhat of his own private Rights to the Public: and must therefore be perfectly satisfied with whatever is found necessary for the common Good; altho' it may, on particular Occasions, bring upon him some Inconveniences and Sufferings.

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Does any body complain of ill usage upon his House being ordered to be blown up, to stop the Progress of a Fire which endangers the whole Street: when he reflects that his Neighbour, who by this means escapes, must have suffered the same Loss for his sake, had it so happened that each had been in the other's Habitation?

BUT in truth, there is no Cruelty, but on the contrary real Compassion in these Regulations, with the Limitations I have made: and I am fully persuaded that whoever with Judgment considers the nature of this Disease, will easily see that the Rules here laid down are not only the best, but indeed the only ones that can effectually answer the purpose. And therefore I should not doubt but that, if this Calamity (which God avert!) should be brought into our Country, even the Voice of the People would cry out for Help in this way: notwithstanding wrong Notions of their Liberties may sometimes over-possess their Minds, and make them, even under the best of Governments, impatient of any Restraints.

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PART I.

[Pg 1]

Of the Plague in general.

CHAP. I.

Of the Origine and Nature of the Plague.

MY Design in this Discourse being to propose what Measures I think most proper to defend the Nation against the *Plague*, and for this End to consider the Nature of *Pestilential Contagion* as far as is necessary to set forth the Reasonableness of the Precepts I shall lay down; before I proceed to any particular Directions, I shall enquire a little into the Causes, whence the *Plague* arises, and by what Means the Infection of it is spread.

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In the most ancient Times *Plagues*, like many other Diseases, were looked upon as *divine Judgments* sent to punish the Wickedness of Mankind: and therefore the only Defence sought after was by Sacrifices and Lustrations to appease the Anger of incensed Heaven.[15]

How much soever may be said to justify Reflexions of this Kind, since we are assured from sacred History, that divine Vengeance has been sometimes executed by *Plagues*; yet it is certain, that such Speculations pushed too far, were then attended with ill Consequences, by obstructing Inquiries into natural Causes, and encouraging a supine Submission to those Evils: against which the infinitely good and wise Author of Nature has in most Cases provided proper Remedies.

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Upon this Account, in After-Ages, when the Profession of Physick came to be founded upon the Knowledge of Nature, *Hippocrates* strenuously opposed this Opinion, that *some* particular Sicknesses were Divine, or sent immediately from the Gods; and affirmed, that no Diseases came more from the Gods than others, all coming from them, and yet all owning their proper natural Causes: that the Sun, Cold, and Winds were divine; the Changes of which, and their Influences on human Bodies, were diligently to be considered by a Physician.[16]

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Which general Position this great Author of Physick intended to be understood with respect to *Plagues* as well as other Distempers: How far he had reason herein, will in some measure appear, when we come to search into the Causes of this Disease.

But in order to this Inquiry, it will be convenient, in the first place, to remove an erroneous Opinion some have entertained, that the *Plague* differs not from a *common Fever* in any thing besides its greater Violence. Whereas it is very evident, that since the *Small-Pox* and *Measles* are allowed to be Distempers distinct in *Specie* from all others, on account of certain Symptoms peculiar to them; so, for the same reason, it ought to be granted, that the *Plague* no less differs in Kind from ordinary Fevers: For there are a Set of distinguishing Symptoms as essential to the *Pestilence*, as the respective Eruptions are to the *Small-Pox* or *Measles*; which are indeed (as I have mentioned in the Preface) each of them *Plagues* of a particular kind.

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As the *Small-Pox* discharges itself by *Pustules* raised in the Skin; so in the *Plague* the noxious Humour is thrown out either by *Tumors* in the Glands, as by a *Parotis, Bubo*, and the like; or by *Carbuncles* thrust out upon any part of the Body. And these Eruptions are so specific Marks of this Distemper, that one or other of them is never absent: unless through the extreme Malignity of the Disease, or Weakness of Nature, the Patient sinks, before there is time for any Discharge to be made this way; that Matter, which should otherwise have

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been cast out by external Tumors, seizing the Viscera, and producing Mortifications in them.

Sometimes indeed it happens, by this means, that these *Tumors* in the *Glands*, and *Carbuncles*, do not appear; just as a bad kind of the *Small-Pox* in tender Constitutions sometimes proves fatal before the *Eruption*, by a *Diarrhæa*, *Hæmorrhage*, or some such Effect of a prevailing Malignity.

The French Physicians having distinguished the Sick at Marseilles into five Classes, according to the Degrees of the Distemper, observed Bubo's, and Carbuncles, in all of them, except in those of the first Class, who were so terribly seized, that they died in a few Hours, or at farthest in a Day or two, sinking under the Oppression, Anxiety, and Faintness, into which they were thrown by the first Stroke of the Disease; having Mortifications immediately produced in some of the Viscera, as appeared upon the Dissection of their Bodies[17]. And this Observation of the French Physicians, which agrees with what other Authors have remarked in former *Plaques*, fully proves, that these Eruptions are so far from being caused solely by the greater Violence of this Disease, than of other Fevers, that they are only absent, when the Distemper is extraordinary fierce; but otherwise they constantly attend it, even when it has proved so mild, that the first Notice, the Patient has had of his Infection, has been the Appearance of such a *Tumor*: as, besides these *French* Physicians, other Authors of the best Credit have assured us. From whence we must conclude, that these Eruptions are no less a Specific Mark of this Disease, than those are, by which the Small Pox and Measles are known and distinguished. And as in the first Class of those attacked with the Plague, so likewise in these two Distempers we often find the Patient to dye by the violence of the Fever, before any Eruption of the Pustules can be made.

This Circumstance of the Plague being mortal before any Eruptions appeared, was attended with a great misfortune. The Physicians and Surgeons appointed to examine the dead Bodies, finding none of the distinguishing Marks of the Disease, reported to the Magistrates that it was not the *Plague*; and persisted in their opinion, till one of them suffered for his Ignorance, and himself, with part of his Family, dyed by the Infection: this Assurance having prevented the necessary Precautions[18].

And this in particular shews us the difference between the true *Plague*, and those *Fevers* of extraordinary Malignity, which are the usual Forerunners of it, and are the natural Consequence of that ill State of Air, we shall hereafter prove to attend all *Plagues*. For since all those Fevers, from which People recover without any Discharge by Tumors in the Glands, or by *Carbuncles*, want the *characteristic* Signs, which have been shewn to attend the slightest Cases of the true *Plague*; we cannot, upon any just Ground, certainly conclude them to be a less Degree only of that Distemper: but as far as appears, they are of a different Nature, are not ordinarily *Contagious* like the *Plague*, nor yet have any such necessary relation to it, but that such Fevers do sometimes appear, without being followed by a real *Pestilence*.

On the other hand, I would not be understood to call every *Fever* a *Plague*, which is followed by Eruptions resembling these here mentioned: For as every *Boil* or *Pustule*, which breaks out upon the Skin, is not an Indication of the *Small Pox*, nor every Swelling in the *Groin* a *Venereal Bubo*; so there are *Carbuncles* not Pestilential, and other Fevers, besides the *Plague*, which have their Crisis by *Tumors* and *Abscesses*, and that sometimes even in the *Parotid* or other Glands. There is indeed usually some difference between these Swellings in the *Plague*, and in other Fevers, especially in the time of their coming out: for in the *Plague* they discover themselves sooner than in most other Cases. But the principal difference between these Diseases, is, that the Plague is infectious, the other not; at least not to any considerable Degree.

AND this leads me to another Character of this Disease, whereby it is distinguished from ordinary Fevers, which is the *Contagion* accompanying it. This is a very ancient Observation. Thucydides makes it a part of his Description of the Plague at Athens[19]; and Lucretius, who has almost translated this Description of Thucydides, dwells much upon it[20]. Aristotle makes it one of his[21] Problems, How the Plague infects those who approach to the Sick. And what is of more Consequence, Galen himself is very clear in it[22]; for he has these words: ὅτι συνδιατρίβειν τοῖς λοιμώττουσιν ἐπισφαλὲς, ἀπολαῦσαι γὰρ κίνδυνος, ὥσπερ ψώρας τινὸς, &c. that it is unsafe to be about those, who have the Plague, for fear of catching it, as in the Itch, &c. Indeed this is a thing so evident, that we find it at present the current Opinion of all Mankind, a very few Persons only excepted, who have distinguished themselves by their Singularity in maintaining the opposite Sentiment. And it is something strange that any one should make a Question of a thing so obvious, which is proved sufficiently by one Property only of the Disease, that whenever it seizes one Person in a House, it immediately after attacks the greatest part of the Family. This Effect of the Plague has been so remarkable at all times, that whoever considers it well, cannot possibly, I think, have any Doubt remaining, or require any stronger Argument to convince him, that the Disease is infectious. For this very reason the Small-Pox and Measles are generally allowed to be contagious; because it is observed, that when either of these Diseases is got among a Family, it usually seizes successively the greatest part of that Family, who have not had it before: at least if such in the Family hold free Communication with the Sick. And by the same Argument the Plague must be concluded to be infectious likewise. It cannot be pretended, that this is occasioned in the *Plague* from this only, that the sound Persons are

render'd more than ordinarily obnoxious to the unhealthy Air, or whatever be the common

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Cause of the Disease, by being put into fear and dispirited, upon seeing others in the same House taken sick: For if this were the Case, *Children*, who are too young to have any Apprehensions upon this Account, would escape better than others, the contrary of which has been always experienced.

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It is true, some have not been attacked by the Disease, though constantly attending about the Sick. But this is no Objection against what is here advanced: for it is as easily understood how some Persons, by a particular Advantage of Constitution, should resist Infection, as how they should constantly breath a noxious Air without hurt. An odd Observation of Diemerbroek deserves notice in this Place; That, part of a Family removed into a Town free from the *Plaque*, was observed by him to be taken ill of it soon after the part left behind in the diseased Town fell sick: which certainly could scarce have happened, unless a Communication between the Healthy and the Sick, by Letters or otherwise, was capable of causing it[23]. Of the same Nature is a Circumstance recorded by Evagrius of the Plague, which he describes, and what, he owns, surprized him very much: That, many of those, who left infected Places, were seized with the Plague in the Towns to which they had retired, while the old Inhabitants of those Towns were free from the Disease[24]. But to multiply Proofs of a thing so evident, is needless; innumerable are at hand, and several will occasionally occur in the following Parts of this Discourse, when we come to speak in particular of the ways, by which this Infection is conveyed about. I shall therefore say no more in this Place, but only, that all the Appearances attending this Disease are very easily explained upon this Principle, and are hardly to be accounted for upon any other. We learn from hence the reason why when the *Plague* makes its first Appearance in any Place, though the Number of Sick is exceeding small, yet the Disease usually operates upon them in the most violent manner, and is attended with its very worst Symptoms. Now was the Disease produced not by imported Contagion, but from some Cause, which had its Original in the diseased Place, and consequently from a Cause gradually bred, the contrary must happen: the Diseased would at first not only be few in Number, but their Sickness likewise more moderate than afterwards, when the morbific Causes were raised to their greatest Malignity. From the same Principle we see the reason, why People have often remained in Safety in a diseased Town, only by shutting themselves up from all Communication with such, as might be suspected of giving them the Disease. When the Plaque was last in England, while it was in the Town of Cambridge, the Colleges remained entirely free by using this Precaution. In the *Plague* at *Rome* in the Years 1656 and 1657, the *Monasteries* and Nunneries, for the most part, defended themselves by the same Means[25]: Whereas at Naples, where the Plague was a little before, these Religious Houses, from their Neglect herein, did not escape so well[26]. Nay the Infection entered none of the *Prisons* at *Rome*[27], though the Nastiness of those Places exposes them very much. But, to avoid Prolixity, I shall give only one Instance more. I think it cannot be explained in any other reasonable manner, how the last Plague in the City of London, which broke out in the parish of St. Giles's in the Fields towards the latter end of the Year 1664, should lie a-sleep from Christmas to the middle of February, and then break out again in the same Parish; and after another long rest

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To proceed: Whoever examines the Histories of *Plagues* in all times, which have been described with any Exactness, will find very few, that do not agree in these essential Marks, whereby the *Plague* may be distinguished from other *Fevers*. I confess an Instance or two may be found to the contrary; perhaps the History of our own Country furnishes the most remarkable of any[29]. But Examples of this kind are so very rare, that I think it must be concluded, that the *Plague* is usually one and the same Distemper.

till *April*, shew itself again in the same Place[28].

Trade into the other Parts of the World.

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and is brought from *Africa*, the Country which has entail'd upon us two other infectious Distempers, the *Small-Pox* and *Measles*. In all Countries indeed *Epidemic Diseases* extraordinarily mortal, are frequently bred in *Goals, Sieges, Camps,* &c. which Authors have often in a large Sense called *Pestilential*: But the true *Plague*, which is attended with the distinguishing Symptoms before described, and which spreads from Country to Country, I take to be an *African* Fever bred in *Æthiopia* or *Egypt*, and the *Infection* of it carried by

In the next place I shall endeavour to shew, that the *Plague* has always the same Original,

It is the Observation of *Pliny*, that the *Pestilence* always travels from the *Southern* Parts of the World to the *Western*, that is, in his Phrase, into *Europe*[30]. And the most accurate Accounts in all Times of this Disease, wherever it has raged, bring it from *Africa*. *Thucydides*[31], in his admirable Description of the famous *Plague* of *Athens*, says, that it began in Upper *Æthiopia*, then came into *Egypt*, from whence it was spread first into *Persia*, and afterwards into *Greece*.

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There is in all ancient History no Account of any *Plague* so dreadful as that, which broke out at *Constantinople* in the time of the Emperor *Justinian A. D.* 543. This is said to have spread its Infection over all the Earth, and to have lasted fifty two Years. The History of it is very well told by *Evagrius*[32], and yet more learnedly by *Procopius*[33]: and they both observe, that the Distemper had its Birth in *Æthiopia* or *Egypt*.

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This is likewise agreeable to the modern Relations of Travellers and Merchants from *Turkey*, who generally inform us, that the frequent *Plagues*, which depopulate that Country, are brought thither from the Coast of *Africa*: insomuch that at *Smyrna*, and other Ports of that Coast, they often know the very Ship which brings it. And, in these latter Ages, since our

Trade with *Turkey* has been pretty constant, the *Plagues* in these Parts of *Europe* have evidently been brought from thence.

The late *Plague* in *France* came indisputably from *Turkey*, as I shall particularly shew in some of the following Pages. The *Plague*, which broke out at *Dantzick* in the Year 1709, and spread from thence to *Hamburgh*, *Copenhagen*, and other Cities in the *North*, made its way thither from *Constantinople* through *Poland*, &c. And the last *Plague* in this City, if we may believe Dr. *Hodges*, had the same Original, being brought to us from *Holland*, but carried to them by *Cotton* imported from *Turkey*[34].

The greatest *Mortality* that has happen'd in later Ages, was about the middle of the fourteenth Century; when the *Plague* seized Country after Country for five Years together[35]. In the Year 1346 it raged in *Egypt, Turkey, Greece, Syria,* and the *East-Indies*; in 1347 some Ships from the *Levant* carried it to *Sicily, Pisa, Genoa, &c.* in 1348 it got into *Savoy, Provence, Dauphiny, Catalonia,* and *Castile, &c.* in 1349 it seized *England, Scotland, Ireland,* and *Flanders*; and the next Year *Germany, Hungary* and *Denmark*: and in all Places, where it came, it made such heavy Destruction, that it is said to have dispeopled the Earth of more than half its Inhabitants[36]. Now since *Africa* had a share of this *Plague* in the very beginning, I question not but it had its first Rise in that Country; and not in *China,* as *M. Villani,* in his History of those Times, relates from the Report of *Genoese* Seamen, who came from those Parts, and said it was occasion'd there by a great *Ball of Fire,* which either burst out of the Earth, or fell down from Heaven[37]. But this Relation is so very incredible, that I cannot think we ought at all to rely upon it: seeing we have no Instance of a *Plague,* which was originally bred in that Country.

It is very remarkable, that the several Countries of *Europe* have always suffered more or less in this way, according as they have had a greater or lesser Commerce with *Africa*; or with those Parts of the *East*, that have traded thither. Which Observation, by the by, may help to solve a Difficulty concerning the great Increase of People among the *Northern* Nations in ancient Times, more than at present; for in those Ages, having no Communication at all with *Africa*, they were not wasted with *Plagues*, as they have been since.

As the People of *Marseilles*, from the first Foundation of their City by the *Phoceans*, were famous for Trade, and made long Voyages Southwards on the *African* Coast[38]; so they have in all times been very liable to the Plague. A French Author[39] in a History of the late Plague at *Marseilles* reckons up twenty Plagues that have happened in that City; notwithstanding it is by its situation one of the most healthy and pleasant Places in *France*, and the least subject to epidemic Distempers. But if we had no Records of this in History, an odd Custom among them, mentioned in Antiquity[40], of the way they made use of to clear themselves from this Distemper, would be a proof of it. Their manner at such times was, that some one poor Man offered himself to be maintained at the publick Expence with delicate Food for a whole Year: at the end of which he was led about the City dressed in consecrated Garments and Herbs; and being loaded with Curses as he went along, that the Evils of the Citizens might fall upon him, he was at last thrown into the Sea[41].

Agreeable to this Remark upon Trade is the Observation of *Procopius* in his forecited History, that the *Plague* was always found to spread from *Maritime* Places into the *Inland* Countries: which has ever since been confirmed by Experience.

Having shewn this Disease to be a Distemper of a distinct Species, and to take its Rise only in *Africa*; we must next seek for its Cause in that Country and no where else. We ought therefore to consider, what there is peculiar to that Country, which can reasonably be supposed capable of producing it. Wherefore I shall briefly set down as much as serves for this purpose of the State of *Grand Cairo* in *Egypt*, and of *Æthiopia*, the two great Seminaries of the *Plague*: Travellers relating that these Countries are more infested with it than most other Parts of *Africa*.

GRAND CAIRO is crouded with vast Numbers of Inhabitants, who for the most part live very poorly, and nastily; the Streets are very narrow, and close: it is situate in a sandy Plain at the Foot of a Mountain, which by keeping off the Winds, that would refresh the Air, makes the Heats very stifling. Through the midst of it passes a great Canal, which is filled with Water at the overflowing of the Nile; and after the River is decreased, is gradually dried up: Into this the People throw all manner of Filth, Carrion, &c. so that the Stench which arises from this, and the Mud together, is insufferably offensive[42]. In this Posture of things, the Plague every Year constantly preys upon the Inhabitants; and is only stopt, when the Nile, by overflowing, washes away this Load of Filth; the Cold Winds, which set in at the same time, lending their Assistance, by purifying the Air.

In *Æthiopia* those prodigious Swarms of *Locusts*, which at some times cause a Famine, by devouring the Fruits of the Earth, unless they happen to be carried by the Winds clear off into the Sea, are observed to entail a new Mischief upon the Country, when they die and rot, by raising a *Pestilence*[43]; the Putrefaction being hightened by the excessive *Intemperance of the Climate*, which is so very great in this Country, that it is infested with violent *Rains* at one Season of the Year, for three or four Months together[44]. And it is particularly observed of this Country, that the *Plague* usually invades it, whenever Rains fall during the sultry Heats of *July* and *August*[45], that is, as *Lucretius* expresses it, when the Earth is

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Now if we compare this last Remark of the *Intemperance of the Climate* in *Æthiopia*, with what the *Arabian* Physicians[47], who lived near these Countries, declare, that *Pestilences* are brought by *unseasonable* Moistures, Heats, and want of Winds; I believe we shall be fully instructed in the usual Cause of this Disease. Which from all these Observations compared together, I conclude to arise from the *Putrefaction* so constantly generated in these Countries, when *that* is hightened and increased by the ill State of Air now described; and especially from the *Putrefaction* of animal Substances.

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It is very plain, that animal Bodies are capable of being altered into a Matter fit to breed this Disease: because this is the Case of every one who is sick of it, the Humours in him being corrupted into a Substance which will *infect* others. And it is not improbable, that the volatile Parts with which Animals abound, may in some ill States of Air in the sultry Heats of Africa be converted by Putrefaction into a Substance of the same kind: since in these colder Regions, we sometimes find them to contract a greater Degree of Acrimony than most other Substances will do by *putrefying*, and also more dangerous for Men to come within the reach of their Action; as in those pernicious, and even poysonous Juices, which are sometimes generated in corrupted Carcasses: Of which I have formerly given one very remarkable Instance[48], and, if it were necessary, many more might be produced, especially in *hydropic Bodies*, and in *cancerous Tumors*. Nay more, we find *animal Putrefaction* sometimes to produce in these *Northern* Climates very fatal Distempers, though they do not arise to the Malignity of the true *Plague*: For such *Fevers* are often bred, where a large Number of People are closely confined together; as in *Goals*, *Sieges*, and *Camps*.

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And perhaps it may not be here amiss to remark, that the *Egyptians* of old were so sensible how much the *Putridness* of dead Animals contributed towards breeding the *Plague*, that they worshipped the Bird *Ibis* for the Service it did in devouring great Numbers of Serpents; which they observed did hurt by their Stench when dead, as well as by their Bite when alive[49].

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But no kind of *Putrefaction* is ever hightened in these *European* Countries to a degree capable of producing the true *Plague*: and we learn from the Observation of the *Arabian* Physicians, that some Indisposition of the *Air* is necessary in the hottest Climates, either to cause so exalted a Corruption of the forementioned Substances, or at least to enforce upon Mens Bodies the Action of the *Effluvia* exhaled from those Substances, while they putrefy. Both which Effects may well be expected from the sensible ill Qualities of the *Air* before described, whenever they continue and exert their Force together any considerable time.

What I have here advanced of the first Original of the *Plague*, appears to me so reasonable, that I cannot enough wonder at Authors for quitting the Consideration of such manifest Causes for *Hidden Qualities*; such as *Malignant Influences of the Heavens*; *Arsenical*, *Bituminous*, or other *Mineral Effluvia*, with the like imaginary or uncertain Agents.

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This however I do not say with design absolutely to exclude all Disorders in the *Air*, that are more latent than the intemperate *Heat* and *Moisture* before mentioned, from a Share in increasing and promoting the Infection of the *Plague*, where it is once bred: for I rather think this must sometimes be the Case; like to what is observed among us in relation to another infectious Distemper, namely, the *Small-Pox*, which is most commonly spread, and propagated by the same manifest Qualities of the *Air* as those here described: Notwithstanding which, this Distemper is sometimes known to rage with great Violence in the very opposite Constitution of *Air*, *viz*. in the Winter during dry and frosty Weather. But to breed a Distemper, and to give force to it when bred, are two different things. And though we should allow any such secret Change in the *Air* to assist in the first Production of the Disease; yet it may justly be censured in these Writers, that they should undertake to determine the *Specific Nature* of these secret Changes and Alterations, which we have no means at all of discovering: Since they do not shew themselves in any such sensible manner, as to come directly under our Examination; nor yet do their Effects, in producing the *Plague*, point out any thing of their *Specific Nature*.

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ALL that we know, is this, that the Cause of the *Plague*, whatever it be, is of such a Nature, that when taken into the Body, it works such Changes in the Blood and Juices, as to produce this Disease, by suddenly giving some Parts of the Humours such corrosive Qualities, that they either excite inward *Inflammations* and *Gangrenes*, or push out *Carbuncles* and *Bubo's*; the *Matter* of which, when suppurated, communicates the like Disease to others: But of the manner how this is done, I shall discourse in the following Chapter.

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I HAVE been thus particular in tracing the *Plague* up to its first Origine, in order to remove, as much as possible, all Objection against what I shall say of the Causes, which excite and propagate it among us. This is done by *Contagion*. Those who are Strangers to the full Power of *this*, that is, those who do not understand how subtile it is, and how widely the Distemper may be spread by *Infection*, ascribe the Rise of it wholly to the malignant Quality of the *Air* in all Places, wherever it happens; and, on the other hand, some have thought that the Consideration of the infectious Nature of the Disease must exclude all regard to the Influence of the *Air*. Whereas the *Contagion* accompanying the Disease, and the Disposition of the *Air* to promote that *Contagion*, ought equally to be considered; both being necessary to give the Distemper full force. The Design therefore of this Chapter, is to make a proper Balance between these two, and to set just Limits to the Effects of each.

For this purpose, I shall reduce the Causes, which spread the *Plague*, to three, *Diseased Persons*, *Goods transported from infected Places*, and *a corrupted State of Air*.

There are several Diseases, which will be communicated from the Sick to others: and this not done after the same manner in all. The *Hydrophobia* is communicated no other way than by mixing the morbid Juices of the diseased Animal immediately with the Blood of the sound, by a *Bite*, or what is analogous thereto; the *Itch* is given by *simple Contact*; the *Lues Venerea* not without a *closer Contact*; but the *Measles, Small-Pox*, and *Plague* are caught by a *near Approach* only to the Sick: for in these three last Diseases Persons are render'd obnoxious to them only by residing in the same House, and conversing with the Sick.

Now it appears by the Experiments mentioned in the *Preface*, of giving the *Plague* to *Dogs* by putting the *Bile*, *Blood* or *Urine* from infected Persons, into their Veins, that the whole mass of the animal Fluids in this Disease is highly corrupted and putrefied. It is therefore easy to conceive how the *Effluvia* or Fumes from Liquors so affected may taint the ambient Air. And this will more especially happen, when the Humours are in the greatest Fermentation, that is, at the Highth of the Fever: as it is observed that fermenting Liquors do at the latter end of their intestine Motion throw off a great Quantity of their most subtile and active Particles. And this Discharge will be chiefly made upon those Glands of the Body, in which the Secretions are the most copious, and the most easily increased: such are those of the Mouth and Skin. From these therefore the Air will be impregnated with *pestiferous Atoms*: which being taken into the Body of a sound Person will, in the Nature of a *Ferment*, put the Fluids there into the like Agitation and Disorder.

The Body, I suppose, receives them these two ways, by the *Breath*, and by the *Skin*; but chiefly by the former.

I think it certain that *Respiration* does always communicate to the Blood some Parts from the Air: Which is proved from this Observation, that the same Quantity of Air will not suffice long for breathing, though it be deprived of none of those Qualities, by which it is fitted to inflate the Lungs and agitate the Blood, the Uses commonly ascribed to it. And this is farther confirm'd by what the learned Dr. *Halley* has inform'd me, that when he was several Fathom under Water in his *Diving Engine*, and breathing an Air much more condensed than the natural, he observed himself to breath more slowly than usual: Which makes it more than probable, that this conveying to the Blood some subtile Parts from the Air, is the chief Use of *Respiration*; since when a greater Quantity of *Air* than usual was taken in at a time, and consequently more of these subtile Parts received at once by the Blood, a less frequent *Respiration* sufficed.

As to the *Skin*, since there is a continual Discharge made thro' its innumerable *Pores*, of the matter of *insensible Perspiration* and *Sweat*; it is very possible that the same Passages may admit subtile Corpuscles, which may penetrate into the inward Parts. Nay it is very plain that they do so, from what we observe upon the outward Application of *Ointments* and warm *Bathings*: which have their Effects by their finest and most active Parts insinuating themselves into the Blood.

It is commonly thought, that the *Blood* only is affected in these Cases by the morbific *Effluvia*. But I am of opinion, that there is another Fluid in the Body, which is, especially in the beginning, equally, if not more, concerned in this Affair: I mean the *Liquid of the Nerves*, usually called the *Animal Spirits*. As *this* is the immediate Instrument of all Motion and Sensation, and has a great Agency in all the glandular Secretions, and in the Circulation of the Blood itself; any considerable Alteration made in it must be attended with dangerous Consequences. It is not possible that the whole Mass of Blood should be corrupted in so short a Time as that, in which the fatal Symptoms, in some Cases, discover themselves. Those Patients of the *first Class*, mentioned in the beginning of this Discourse, particularly the *Porters* who opened the infected Bales of Goods in the *Lazaretto*'s of *Marseilles*, died upon the first Appearance of Infection, as it were by a sudden Stroke; being seized with Rigors, Tremblings, Heart-Sickness, Vomitings, Giddiness and Heaviness of the Head, an universal Languor and Inquietude; the Pulse low and unequal: and Death insued sometimes in a few Hours.

EFFECTS so sudden must be owing to the Action of some Corpuscles of great Force insinuated into, and changing the Properties of, another subtle and active Fluid in the Body: and such an one, no doubt, is the *Nervous Liquor*.

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It is not to be expected that we should be able to explain the particular manner by which this is brought about. We know too little of the Frame of the Universe, and of the Laws of Attractions, Repulsions and Cohesions among the minutest Parcels of Matter, to be able to determine all the Ways by which they affect one another, especially within animal Bodies, the most delicate and complicated of all the known Works of Nature. But we may perhaps make a probable Conjecture upon the Matter. Our great Philosopher, whose surprising Discoveries have exceeded the utmost Expectations of the most penetrating Minds, has demonstrated that there is diffused through the Universe a subtile and elastic Fluid of great Force and Activity. This he supposes to be the Cause of the Refraction and Reflection of the Rays of Light; and that by its Vibrations Light communicates Heat to Bodies: and, moreover, that this readily pervading all Bodies, produces many of their Effects upon one another [50].

Now it is not improbable that the *Animal Spirits* are a thin Liquor, separated in the Brain, and from thence derived into the Nerves, of such a Nature that it admits, and has incorporated with it, a great Quantity of this *elastic Fluid*: which makes it a vital Substance of great Energy. And a Liquor of this kind must be very susceptible of Alterations from other active Bodies of a different Nature from it, if they approach to and are mixed with it: as we see some *Chemical Spirits* upon their being put together, fall into a Fermentation, and make a Composition of a quite different kind.

If therefore we allow the *Effluvia* or *Exhalations* from a corrupted Mass of Humours in a Body that has the *Plague* to be volatile and firey Particles, carrying with them the Qualities, of those fermenting Juices from which they proceed; it will not be hard to conceive how these may, when received into the *nervous Fluid* of a sound Person, excite in it such intestine Motions as may make it to partake of their own Properties, and become more unfit for the Purposes of the animal Oeconomy. But of this more in another Place.

This is one means by which the *Plague*, when once bred, is spread and increased: but the second of the forementioned Causes, namely, Goods from infected Places, extends the Mischief much wider. By the preceding Cause, the Plague may be spread from Person to Person, from House to House, or perhaps from Town to Town, tho' not to any great Distance; but this carries it into the remotest Regions. From hence the trading Parts of Europe have their principal Apprehensions, and universally have recourse to Quarantaines for their Security. The Universality of which Practice is a strong Argument, that Merchandize will communicate Infection: for one cannot imagine, that so many Countries should agree in such a Custom without the most weighty Reasons. But besides, there is not wanting express Proof of this, from particular Examples, where this Injury has been done by several sorts of Goods carried from infected Places to others. Some of these I shall hereafter be obliged to mention; at present I shall confine my self to three Instances only. The first shall be of the Entrance of the Plague into Rome in the Year 1656, which we are assured was conveyed thither from Naples by Clothes and other Wares from that Place, brought first to Port Neptuno, and carried from thence to the Neighbouring Castle of St. Lawrence: which after having been kept some time there, were conveyed into Rome[51]. The second Instance I shall take is from the Account given us of the Entrance of the Plague into Marseilles[52]; which being drawn up with great Exactness, may be the more rely'd on. It appears indisputably by this Account, that the Mischief was brought thither by Goods from the Levant. For the first, who had the Distemper, was one of the Crew of the Ship, which brought those Goods: the next were those, who attended upon the same Goods, while they were under Quarantaine; and soon after the Surgeon, whom the Magistrates of Marseilles appointed to examine the Bodies of those, who died.

This Relation, if duly consider'd, is, I believe, sufficient to remove all the Doubts any one can have about the Power of *Merchandize* to convey *Infection*: for it affords all the Evidence, the most scrupulous can reasonably desire. Possibly there might be some Fever of extraordinary Malignity in *Marseilles*, such as is commonly called *Pestilential*, before the Arrival of these Goods: But no such Fever has any indisputable Right to the Title of *Pestilence*, as I have before shewn. On the contrary, these two, the real *Pestilence*, and such *Pestilential Fevers*, must carefully be distinguished, if we design to avoid all Mistakes in reasoning upon these Subjects.

Some such Fever of uncommon Malignity, I say, might perhaps be in *Marseilles* before the Arrival of these Goods. There might likewise perhaps be an Instance or two of *Fevers* attended with *Eruptions*, bearing some Resemblance to those of the *Plague*: for such I my self have sometimes seen here in *London*. But it is not conceivable, that there should be any Appearance of the true *Plague* before that time: for it was full six Weeks from the time of the Sailor's Death, which had given the Alarm, and raised a general Attention, before the Magistrates received Information of any one's dying of the *Plague* in the City. And I believe it was never known, that the *Plague*, being once broke out, gave so long a Truce in hot Weather.

The Plague, which has this present Year almost depopulated Messina, affords a third Instance of the same kind. By an authentic Relation of it, published here[53] we are informed, that a Genoese Vessel from the Levant, arrived at that City; and upon notice given that a Sailor, who had touched some Cases of Cotton Stuffs bought up at Patrasso in the Morea, where the Distemper then raged, was dead of the Plague, in the Voyage; the Ship was put under Quarantaine: during which time the Cotton Stuffs were privately landed. The Master and some Sailors dying three days after, the Vessel was burnt. These Goods lay for

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some time concealed, but were soon after publickly sold: upon which the Disease immediately broke out in that *Quarter* where they were opened; and afterwards was spread through the whole City.

I think it not improper, for the fuller Confirmation of the present Point, to give a Relation communicated to me by a Person of unquestionable Credit, of the like Effect from Goods, in respect to the *Small-Pox*; which Distemper is frequently carried in the Nature of the *Plague* both to the *East* and *West-Indies* from these Countries, and was once carried from the *East-Indies* to the *Cape of Good Hope*, in the following manner. About the Year 1718, a ship from the *East-Indies* arrived at that Place: In the Voyage three Children had been sick of the *Small-Pox*: The foul Linen used about them was put into a Trunk, and lock'd up. At the Ship's Landing, this was taken out, and given to some of the Natives to be washed: Upon handling the Linen, they were immediately seized with the *Small-Pox*, which spread into the Country for many Miles, and made such a Desolation, that it was almost dispeopled.

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It has been thought so difficult to explain the manner how *Goods* retain the Seeds of *Contagion*, that some[54] Authors have imagined *Infection* to be performed by the Means of *Insects*; the *Eggs* of which may be conveyed from Place to Place, and make the Disease when they come to be *hatched*. But as this is a Supposition grounded upon no manner of Observation, so I think there is no need to have recourse to it. If, as we have conjectured, the *Matter* of *Contagion* be an active Substance generated chiefly from animal Corruption; it is not hard to conceive how this may be lodged and preserved in soft porous Bodies, which are kept pressed close together.

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We all know how long a time *Perfumes* hold their Scent, if wrapt up in proper Coverings: And it is very remarkable, that the strongest of these, like the Matter we are treating of, are mostly *animal Juices*, as *Mosch*, *Civet*, &c. and that the Substances, found most fit to keep them in, are the very same with those, which are most apt to receive and communicate Infection, as *Furrs*, *Feathers*, *Silk*, *Hair*, *Wool*, *Cotton*, *Flax*, &c. the greatest part of which are likewise of the *animal* kind.

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Nothing indeed can give us so just a Notion of *Infection*, and more clearly represent the manner of it, than *Odoriferous* Bodies. Some of *these* do strangely revive the animal Spirits; others instantaneously depress and sink them: We may therefore conceive that, what active particles emitted from any such Substances do, is in the like way done by *Pestiferous* Bodies; so that *Contagion* is no more than the effect of volatile offensive Matter drawn into the Body by our *Smelling*.

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The third Cause we assigned for the spreading of *Contagion*, was a corrupted State of *Air*. Although the *Air* be in a right State, yet a sick Person may infect those who are very near him: As we find the *Pestilence* to continue sometimes among the *Crew* of a Ship, after they have sailed out of the Infectious Air wherein the Disease was first caught. A remarkable Accident of this Nature is recorded to have happened in the *Plague* at *Genoa* in the Year 1656. Eleven Persons put to Sea in a *Felucca*, with design to withdraw themselves from the *Contagion*, and retire into *Provence*; but one of them falling sick of the *Plague* soon after they had imbarked, infected the rest; insomuch that others being taken ill, and dying in their turns, they were not admitted any where, but were forced to return from whence they came: and by that time the Boat arrived again at *Genoa* no more than one of them survived[55].

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However in this Case the Malady does not usually spread far, the *contagious* Particles being soon dispersed and lost. But when in a corrupt Disposition of the *Air* the *contagious* Particles meet with the subtile Parts generated by that Corruption, by uniting with them they become much more active and powerful, and likewise of a more durable Nature; so as to form an infectious Matter capable of conveying the Mischief to a greater distance from the diseased Body, out of which it was produced.

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In general, a hot Air is more disposed to spread Contagion than a cold one, as no one can doubt, who considers how much all kinds of Effluvia are farther diffused in a warm Air, than in the contrary. But moreover, that State of Air, when unseasonable Moisture and want of Winds are added to its Heat, which gives birth to the Plague in some Countries, will doubtless promote it in all. For Hippocrates sets down the same Description of a Pestilential State of Air in his Country, as the Arabians do of the Constitution, which gives Rise to the Plague in Africa[56]. Mercurialis assures us the same Constitution of Air attended the Pestilence in his time at Padua[57]: and Gassendus observed the same in the Plague of Digne[58]. Besides, it is easy to shew how the Air, by the sensible ill Qualities discoursed of in the last Chapter, should favour infectious Diseases, by rendering the Body obnoxious to them.

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Indeed other hurtful Qualities of the *Air* are more to be regarded than its Heat alone: for the *Plague* is sometimes stopt, while the Heat of the Season increases, upon the Emendation of the *Air* in other respects. At *Smyrna* the *Plague*, which is yearly carried thither by Ships, constantly ceases about the 24th of *June*, by the dry and clear Weather they always have at that time: the unwholsome Damps being then dissipated that annoy the Country in the *Spring*. However, the Heat of the Air is of so much Consequence, that if any Ship brings it in the Winter Months of *November*, *December*, *January*, or *February*, it never spreads: but if later in the Year, as in *April* or afterwards, it continues till the time before mentioned.

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But moreover, what was said before of some latent Disorders in the Air having a share in

spreading the *Plague*, will likewise have place in these Countries; as the last *Plague* in the City of *London* remarkably proves, the Seeds of which, upon its first Entrance, and while it was confined to a House or two, preserved themselves through a hard frosty *Winter*, and again put forth their malignant Quality as soon as the Warmth of the *Spring* gave them force: but, at the latter end of the next Winter they were suppressed so as to appear no more, though in the Month of *December* more than half the *Parishes* of the City were infected.

A *corrupted State* of Air is, without doubt, necessary to give these contagious Atoms their full force; for otherwise it were not easy to conceive how the *Plague*, when once it had seized any Place, should ever cease but with the Destruction of all the Inhabitants: Which is readily accounted for by supposing an Emendation of the Qualities of the *Air*, and the restoring of it to a healthful State capable of dissipating and suppressing the Malignity.

On the other hand, it does not appear, that the Air, however corrupted, is usually capable of carrying Infection to a very great distance: but that commonly the *Plague* is spread from Town to Town by infected Persons and Goods: for there are numberless Instances, where the Plague has caused a great Mortality in Towns, while other Towns and Villages, very near them, have been entirely free. And hence it is, that the Plague sometimes spreads from Place to Place very irregularly. Thuanus[59] speaks of a Plague in Italy, which one Year was at Trent and Verona, the next got into Venice and Padua, leaving Vicenza, an intermediate Place, untouched, though the next Year that also felt the same Stroke: a certain Proof that the Plague was not carried by the Air from Verona to Padua and Venice; for the infected Air must have tainted all in its Passage. We have had lately in France one Instance of the same Nature, when the Plague was carried at once out of Provence several Leagues into the Gevaudan. Usually indeed the Plague, especially when more violent than ordinary, spreads from infected Places into those which border upon them: which probably is sometimes effected by some little Communication infected Towns are obliged to hold with the Country about them for the sake of Necessaries, the Subtlety of the Venom now and then eluding the greatest Precautions; and at other times by such as withdraw themselves from infected Places into the Neighbourhood.

I own it cannot be demonstrated, that when the *Plague* makes great Ravage in any Town, the Number of Sick shall never be great enough to load the *Air* with infectious *Effluvia*, emitted from them in such Plenty, that they may be conveyed by the Winds into a neighbouring Town or Village without being dispersed so much as to hinder their producing any ill Effects; especially since it is not unusual for the *Air* to be so far charged with these noxious *Atoms*, as to leave no Place within the infected Town secure: insomuch that when the Distemper is at its Highth, all shall be indifferently infected, as well those who keep from the Sick, as those who are near them; though at the beginning of a *Plague* to avoid all Communication with the Diseased, is an effectual Defence. However, I do not think this is often the Case: just as the *Smoak*, with which the *Air* of the City of *London* is constantly impregnated, especially in *Winter*, is not carried many Miles distant; though the Quantity of it is vastly greater than the Quantity of infectious *Effluvia*, that the most mortal *Plague* could generate.

But, to conclude what relates to the *Air*, since the ill Qualities of it in these *Northern* Countries are not alone sufficient to excite the *Plague*, without imported *Contagion*, this shews the Error of a common Opinion, countenanc'd by Authors of great Name[60], that we are necessarily *visited* with the *Plague* once in thirty or forty Years: which is a mere Fancy, without Foundation either in Reason or Experience; and therefore People ought to be delivered from such vain Fears. Since the *Pestilence* is never originally bred with us, but always brought accidentally from abroad, its coming can have no relation to any certain Period of Time. And although our three or four last *Plagues* have fallen out nearly at such Intervals, yet that is much too short a Compass of Years to be a Foundation for a general Rule. Accordingly we see that almost fourscore Years have passed over without any Calamity of this kind.

The *Air* of our Climate is so far from being ever the Original of the true *Plague*, that most probably it never produces those milder infectious Distempers, the *Small-Pox* and *Measles*. For these Diseases were not heard of in *Europe* before the *Moors* had entered *Spain*: and (as I have observed in the *Preface*) they were afterwards propagated and spread through all Nations, chiefly by means of the Wars with the *Saracens*.

Moreover, we are so far from any Necessity of these periodical Returns of the *Plague*, that, on the contrary, though we have had several Strokes of this kind, yet there are Instances of bad *Contagions* from abroad being brought over to us, which have proved less malignant here, when our *Northern Air* has not been disposed to receive such Impressions.

The Sweating Sickness, before hinted at, called Sudor Anglicus and Febris Ephemera Britannica, because it was commonly thought to have taken its Rise here, was most probably of a foreign Original: and though not the common Plague with Glandular Tumors, and Carbuncles, yet a real Pestilence from the same Cause, only altered in its Appearance, and abated in its Violence, by the salutary Influence of our Climate. For it preserved an Agreement with the common Plague in many of its Symptoms, as excessive Faintness and Inquietudes, inward Burnings, &c. these Symptoms being no where observed in so intense a Degree as here they are described to have been, except in the true Plague: And, what is much more, it was likewise a contagious Disease.

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The first time this was felt here, which was in the Year 1485, it began in the Army, with which King *Henry* VII. came from *France* and landed in *Wales*[61]: and it has been supposed by some to have been brought from the famous Siege of *Rhodes* by the *Turks* three or four Years before, as may be collected from what Dr. *Keyes* says in one Place of his Treatise on this Disease[62]. Besides, of the several returns which this has made since that time, *viz.* in the Years 1506, 1517, 1528, and 1551, that in the Year 1528 may very justly be suspected to have been owing to the common *Pestilence*, which at those times raged in *Italy*[63] as I find one of our Historians has long ago conjectured[64]: and the others were very probably from a *Turkish* Infection. If at least some of these Returns were not owing to the Remains of former Attacks, a suitable Constitution of Air returning to put the latent Seeds in Action before they were quite destroyed. It is the more probable that this Disease was owing to *imported Contagion*; because we are assured, that this Form of the Sickness was not peculiar to our Island, but that it made great Destruction with the same Symptoms in *Germany*, and other Countries[65].

I call this Distemper a *Plague* with lessened Force: because though its carrying off thousands for want of right Management was a Proof of its Malignity, which indeed in one respect exceeded that of the common *Plague* itself (for few, who were destroyed with it, survived the Seizure above one Natural Day) yet its going off safely with *profuse Sweats* in twenty four Hours, when due care was taken to promote that Evacuation, shewed it to be what a learned and wise Historian calls it, *rather a Surprize to Nature, than obstinate* to *Remedies*; who assigns this Reason for expressing himself thus, that *if the Patient was kept warm with temperate Cordials, he commonly recovered*[66]. And, what I think yet more remarkable, *Sweating*, which was the natural *Crisis* of this Distemper, has been found by great Physicians the best Remedy against the common *Plague*: by which means, when timely used, that Distemper may sometimes be carried off without any external *Tumors*. Nay besides, a judicious Observer informs us, that in many of his Patients, when he had broken the Violence of the Distemper by such an artificial *Sweat*, a natural *Sweat* not excited by Medicines would break forth exceedingly refreshing[67].

And I cannot but take notice, as a Confirmation of what I have been advancing, that we had here the same kind of Fever in the Year 1713, about the Month of *September*, which was called the *Dunkirk Fever*, as being brought by our Soldiers from that Place. This probably had its Original from the *Plague*, which a few Years before broke out at *Dantzick*, and continued some time among the Cities of the *North*. With us this Fever began only with a Pain in the Head, and went off in large *Sweats* usually after a Day's Confinement: but at *Dunkirk* it was attended with the additional Symptoms of *Vomiting*, *Diarrhœa*, &c.

To return from this Digression: From all that has been said, it appears, I think, very plainly, that the *Plague* is a real Poison, which being bred in the Southern Parts of the World, is carried by Commerce into other Countries, particularly into *Turky*, where it maintains itself by a kind of Circulation from Persons to Goods: which is chiefly owing to the Negligence of the People there, who are stupidly careless in this affair. That when the Constitution of the *Air* happens to favour *Infection*, it rages there with great Violence: that at that time more especially diseased Persons give it to one another, and from them *contagious Matter* is lodged in Goods of a loose and soft Texture, which being pack'd up and carried into other Countries, let out, when opened, the imprisoned Seeds of *Contagion*, and produce the Disease whenever the *Air* is disposed to give them force; otherwise they may be dissipated without any considerable ill Effects. And lastly, that the *Air* does not usually diffuse and spread these to any great Distance, if Intercourse and Commerce with the Place infected be strictly prevented.



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Of the Methods to be taken against the Plague.

CHAP. I.

Of preventing Infection from other Countries.

A S it is a Satisfaction to know, that the *Plague* is not a Native of our Country, so this is likewise an Encouragement to the utmost Diligence in finding out Means to keep our selves clear from it.

This Caution consists of two Parts: *The preventing its being brought into our Island*; and, if such a Calamity should happen, *the putting a Stop to its spreading among us.*

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The first of these is provided for by the established Method of obliging Ships, that come from *infected* Places, to *perform Quarantaine*: As to which, I think it necessary, that the following Rules be observed.

NEAR to our several Ports, there should be *Lazaretto's* built in convenient Places, on little Islands, if it can so be, for the Reception both of Men and Goods, which arrive from Places suspected of *Infection*: The keeping Men in *Quarantaine* on board the Ship being not sufficient; the only use of which is to observe whether any die among them. For *Infection* may be preserved so long in Clothes, in which it is once lodged, that as much, nay more of it, if Sickness continues in the Ship, may be brought on Shore at the end than at the beginning of the forty Days: Unless a new *Quarantaine* be begun every time any Person dies; which might not end, but with the Destruction of the whole Ship's Crew.

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If there has been any *contagious* Distemper in the Ship; the *sound* Men should leave their Clothes, which should be sunk in the Sea, the Men washed and shaved, and having fresh Clothes, should stay in the *Lazaretto* thirty or forty Days. The reason of this is, because Persons may be recovered from a Disease themselves, and yet retain *Matter* of *Infection* about them a considerable time: as we frequently see the *Small-Pox* taken from those, who have several Days before passed through the Distemper.

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The Sick, if there be any, should be kept in Houses remote from the Sound, and, some time after they are well, should also be washed and shaved, and have fresh Clothes; whatever they wore while sick being sunk or buryed: And then being removed to the Houses of the Sound, should continue there thirty or forty Days.

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I AM particularly careful to destroy the Clothes of the Sick, because they harbour the very Quintessence of Contagion. A very ingenious Author [68], in his admirable Description of the Plague at Florence in the Year 1348, relates what himself saw: That two Hogs finding in the Streets the Rags, which had been thrown out from off a poor Man dead of the Disease, after snuffling upon them, and tearing them with their Teeth, they fell into Convulsions, and dy'd in less than an Hour. The learned Fracastorius acquaints us, that in his time, there being a Plague in Verona, no less than twenty five Persons were successively kill'd by the Infection of one Furr Garment [69]. And Forestus gives a like Instance of seven Children, who dy'd by playing upon Clothes brought to Alckmaer in North-Holland, from an infected House in Zealand[70]. The late Mr. Williams, Chaplain to Sir Robert Sutton, when Embassador at Constantinople, used to relate a Story of the same Nature told him by a Bassa: that in an Expedition this Bassa made to the Frontiers of Poland, one of the Janizaries under his Command dy'd of the Plague; whose Jacket, a very rich one, being bought by another Janizary, it was no sooner put on, but he also was taken sick and dy'd: and the same Misfortune befel five Janizaries more, who afterwards wore it. This the Bassa related to Mr. Williams, chiefly for the sake of this farther Circumstance, that the Incidents now mentioned prevailed upon him to order the burning of the Garment: designing by this Instance to let Mr. Williams see there were Turks, who allowed themselves in so much Freedom of Thought, as not to pay that strict Regard to the Mahometan Doctrine of Fatality, as the Vulgar among them do.

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If there has been no Sickness in the Ship, I see no reason why the Men should perform *Quarantaine*. Instead of this, they may be washed, and their Clothes aired in the *Lazaretto*, as Goods, for one Week.

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But the greatest Danger is from such *Goods*, as are apt to retain Infection, such as *Cotton*, *Hemp* and *Flax*, *Paper* or *Books*, *Silk* of all sorts, *Linen*, *Wool*, *Feathers*, *Hair*, and all kinds of *Skins*. The *Lazaretto* for these should be at a Distance from that for the Men; and they must in convenient Warehouses be unpack'd, and exposed, as much as may be, to the fresh Air for forty Days.

This may perhaps seem too long; but as we don't know how much time precisely is necessary to purge the Interstices of spongy Substances from *infectious Matter* by fresh Air, the Caution cannot be too great in this Point. Certainly the time here proposed, having been long established by general Custom, ought not in the least to be retrenched; unless there could be a way found out of trying when Bodies have ceased to emit the noxious Fumes.

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Possibly this might be discovered by putting tender *Animals* near to them, particularly little *Birds*: because it has been observed in Times of the *Plague*, that the Country has been forsaken by the *Birds*; and those kept in Houses have many of them died[71]. Now if it should be found, that *Birds* let loose among Goods at the beginning of their *Quarantaine*, are obnoxious to the *Contagion* in them, it may be known, in good measure, when such Goods are become clean, by repeating the Trial till *Birds* let fly among them receive no hurt. But the Use of this Expedient can be known only by Experience. In the mean time, I own I am fond of the *Thought*, in compassion to poor Labourers, who must expose their Lives to danger, in the attendance upon this Work: and tho' I am well aware that there are *Plagues* among Animals, which do not indifferently affect all kinds of them, some being confined to a particular *Species*, (like the Disease of the *Black Cattle* here, a few Years since, which neither proved infectious to other Brutes, nor to Men;) yet it has always been observed that the true *Plague* among Men has been destructive to all Creatures of what kind soever.

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A very remarkable Story, lately communicated to me by a Person of undoubted Credit, is too much to the purpose to be here omitted. The Fact is this. In the Year 1726, an English Ship took in Goods at *Grand Cairo*, in the time of the *Plague's* raging there, and carried them to *Alexandria*. Upon opening one of the Bales of Wool in a Field, two *Turks* employed in the Work were immediately killed: and some *Birds*, which happened to fly over the Place, dropp'd down dead.

However, the Use of *Quarantaines* is not wholly frustrated by our Ignorance of the exact time required for this Purification: since the *Quarantaine* does at least serve as a Trial whether Goods are infected or not; it being hardly possible that every one of those, who are obliged to attend upon them, can escape hurt, if they are so. And whenever that happens, the Goods must be destroyed.

I TAKE it for granted, that the Goods should be opened, when they are put into the Lazaretto, otherwise their being there will avail nothing. This is the constant Practice in the Ports of Italy. That it is so at Leghorn, appears by the Account lately published of the Manner, in which Quarantaines are there performed: and I find, that the same Rule is observed at Venice, from an authentic Paper, I have before me, containing the Methods made use of in that City, where Quarantaines have been enjoined ever since the Year 1484; at which time, as far as I can learn, they were first instituted in Europe. In that Place all Bales of Cotton, of Camel's or of Beaver's Hair, and the like, are ript open from end to end, and Holes made in them by the Porters every Day, into which they thrust their naked Arms, in order that the Air may have free Access to every part of the Goods. That some such Cautions as these ought not to be omitted, is clearly proved by the Misfortune, which happened in the Island of Bermudas about the Year 1695; where, as the Account was given me by the learned Dr. Halley, a Sack of Cotton put on Shore by Stealth, lay above a Month without any Prejudice to the People of the House, where it was hid: but when it came to be distributed among the Inhabitants, it carried such a Contagion along with it, that the Living scarce sufficed to bury the Dead. This Relation Dr. Halley received from Captain Tucker of Bermudas, Brother to Mr. *Tucker* late Under-Secretary in our Secretary's Office.

INDEED, as it has been frequently experienced, that of all the Goods, which harbour Infection, Cotton in particular is the most dangerous, and Turky is almost a perpetual Seminary of the Plague; I cannot but think it highly reasonable, that whatever Cotton is imported from that part of the World, should at all Times be kept in *Quarantaine*: Because it may have imbibed Infection at the Time of its packing up, notwithstanding no Mischief has been felt from it by the Ship's Company. And the length of Time from its being pack'd up to its Arrival here, is no certain Security that it is cleared from the *Infection*. At least, it is found, that the Time employed by Ships in passing between Turky and Marseilles, is not long enough for Goods to lose their *Infection*: as appears not only from the late Instance, but also from an Observation made in a certain Memorial, drawn up by the Deputy of Trade at Marseilles [72]. Marseilles is the only Port in France allowed to receive Goods from the Levant, on Account of its singular Convenience for Quarantaines, by Reason of several small Islands situate about it. The Ports of France in the Western Ocean having had a Desire to be allowed the same Liberty, their Deputies presented, in the Year 1701, a Memorial to the Royal Council of Trade, containing several Reasons for their Pretensions. To this the Deputy at Marseilles makes Reply in the Memorial I am speaking of, in which this Advantage of Marseilles for Quarantaines above the other Ports, is much insisted upon: and, to evince the Importance thereof, it is declared in express Words, that many Times Persons have been found in that Place to die of the Plague in their Attendance upon Goods under Quarantaine. Now if it be certain, that Goods have retained Infection during their Passage from Turkey to Marseilles; it is too hardy a Presumption to be admitted in an Affair so important as this, that they must necessarily lose all Contagion in the Time of their coming to us, because the Voyage is something longer. But besides this, there are some few Instances of Goods, that have retained their Infection many Years. In particular, Alex. Benedictus gives a very distinct Relation of a Feather Bed, that was laid by seven Years on Suspicion of its being infected, which produced mischievous Effects at the End of that great Length of Time[73]. And Sir Theodore Mayerne relates, that some Clothes fouled with Blood and Matter from Plague Sores being lodged between Matting and the Wall of a House in Paris, gave the Plague several Years after to a Workman, who took them out, which presently spread through the City[74].

What makes Cotton so eminently dangerous, is its great Aptitude to imbibe and retain any

Sort of Effluvia near it; of which I have formerly made a particular Experiment, by causing some Cotton to be placed for one Day near a Piece of putrefying Flesh from an amputated Limb, in a Bell-Glass, but without touching it: for the Cotton imbibed so strong a Taint, that being put up in a close Box, it retained its offensive Scent above ten Months, and would, I believe, have kept it for Years. If, instead of the Fumes of putrefied Flesh from a sound Body, this Cotton had been thus impregnated with the Fumes of corrupted Matter from one sick of the Plague; I make no doubt but it would have communicated Infection. And the Experiment would have succeeded alike in both Cases, if instead of Cotton, Silk, Wool, or Hair had been inclosed in the Vessel: Animal Substances being the most apt to attract the volatile Particles, which come from Bodies of the same Nature with themselves.

As all reasonable Provisions should be made both for the Sound and Sick, who perform Quarantaine; so the strict keeping of it ought to be inforced by the severest Penalties. And if a Ship comes from any Place, where the *Plague* raged, at the Time of the Ship's Departure from it, with more than usual Violence; it will be the securest Method to sink all the Goods, and even the *Ship* sometimes: especially if any on Board have died of the Disease.

Nor ought this farther Caution to be omitted, that when the Contagion has ceased in any Place by the Approach of Winter, it will not be safe to open a free Trade with it too soon: because there are Instances of the Distemper's being stopt by the Winter Cold, and yet the Seeds of it not destroyed, but only kept unactive, 'till the Warmth of the following Spring has given them new Life and Force. Thus in the great Plague at Genoa about four-score Years ago, which continued Part of two Years; the first Summer about ten Thousand died; the Winter following hardly any; but the Summer after no less than sixty Thousand. Likewise the last Plague at London appeared the latter End of the Year 1664, and was stopt during the Winter by a hard Frost of near three Month's Continuance; so that there remained no farther Appearance of it 'till the ensuing Spring[75]. Now if Goods brought from such a Place should retain any of the latent *Contagion*, there will be Danger of their producing the same Mischief in the Place, to which they are brought, as they would have caused in that, from whence they came.

But above all, it is necessary, that the Clandestine Importing of Goods be punished with the utmost Rigour; from which wicked Practice I should always apprehend more Danger of bringing the *Disease* than by any other Way whatsoever.

THESE are, I think, the most material Points, to which Regard is to be had in defending ourselves again Contagion from other Countries. The particular Manner of putting these Directions in Execution, as the Visiting of Ships, Regulation of Lazaretto's, &c. I leave to proper Officers, who ought sometimes to be assisted herein by able Physicians.

CHAP. II.

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Of Stopping the Progress of the Plague, if it should enter our Country.

HE next Consideration is, what to do in Case, through a Miscarriage in the publick Care, lacksquare by the Neglect of Officers, or otherwise, such a Calamity should be suffered to befal us.

There is no Evil in the World, in which the great Rule of Resisting the Beginning, more properly takes Place, than in the present Case; and yet it has unfortunately happened, that the common Steps formerly taken have had a direct Tendency to hinder the putting this *Maxim* in Practice.

As the *Plaque* always breaks out in some particular Place, it is certain, that the Directions of the Civil Magistrate ought to be such, as to make it as much for the Interest of infected Families to discover their Misfortune, as it is, when a House is on Fire, to call in the Assistance of the Neighbourhood: Whereas, on the contrary, the Methods taken by the Publick, on such Occasions, have always had the Appearance of a severe Discipline, and even Punishment, rather than of a Compassionate Care; which must naturally make the *Infected* conceal the Disease as long as was possible.

THE main Import of the Orders issued out at these Times was[76]; As soon as it was found, that any House was infected, to keep it shut up, with a large red Cross, and these Words, Lord, have Mercy upon us, painted on the Door; Watchmen attending Day and Night to prevent any one's going in or out, except such Physicians, Surgeons, Apothecaries, Nurses, Searchers, &c. as were allowed by Authority: And this to continue at least a Month after all the Family was dead or recovered.

It is not easy to conceive a more dismal Scene of Misery, than this: Families lock'd up from all their Acquaintance, though seized with a Distemper which the most of any in the World requires Comfort and Assistance; abandoned it may be to the Treatment of an inhumane Nurse (for such are often found at these times about the Sick;) and Strangers to every thing

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but the melancholy Sight of the Progress, Death makes among themselves: with small Hopes of Life left to the Survivers, and those mixed with Anxiety and Doubt, whether it be not better to die, than to prolong a miserable Being, after the Loss of their best Friends and nearest Relations.

If *Fear, Despair,* and all *Dejection of Spirits,* dispose the Body to receive *Contagion,* and give it a great Power, where it is received, as all Physicians agree they do; I don't see how a Disease can be more inforced than by such a Treatment.

Nothing can justify such *Cruelty*, but the Plea, that it is for the Good of the whole *Community*, and prevents the spreading of *Infection*. But this upon due Consideration will be found quite otherwise: For while *Contagion* is kept nursed up in a House, and continually encreased by the daily Conquests it makes, it is impossible but the *Air* should become tainted in so eminent a degree, as to spread the *Infection* into the Neighbourhood upon the first Outlet. The shutting up Houses in this Manner is only keeping so many *Seminaries* of *Contagion*, sooner or later to be dispersed abroad: For the waiting a Month, or longer, from the Death of the last Patient, will avail no more, than keeping a *Bale* of infected *Goods* unpack'd; the Poyson will fly out, whenever the *Pandora's Box* is opened.

As these Measures were owing to the Ignorance of the true Nature of *Contagion*, so they did, I firmly believe, contribute very much to the long Continuance of the *Plague*, every time they have been practised in this City: And no doubt, they have had as ill Effects in other Countries.

It is therefore no wonder, that grievous Complaints were often made against this unreasonable Usage; and that the Citizens were all along under the greatest apprehensions of being thus *Shut up*. This occasioned their concealing the Disease as long as they could, which contributed very much to the inforcing and spreading of it: and when they were confined, it often happened that they broke out of their *Imprisonment*, either by getting out at Windows, &c. or by bribing the Watchmen at their Doors; and sometimes even by murdering them. Hence in the Nights, people were often met running about the Streets, with hideous *Shrieks* of *Horror* and *Despair*, quite *Distracted*, either from the violence of the Fever, or from the Terrors of Mind, into which they were thrown by the daily Deaths they saw of their nearest Relations.

In these miserable Circumstances, many ran away, and when they had escaped, either went to their Friends in the Country, or built Hutts or Tents for themselves in the open Fields, or got on board Ships lying in the River. A few also were saved by keeping their Houses close from all communication with their Neighbours[77].

AND it must be observed, that whenever popular Clamours prevailed so far, as to procure some Release for the Sick, this was remarkably followed with an Abatement of the Disease. The *Plague* in the Year 1636 began with great Violence; but leave being given by the King's Authority for People to quit their Houses, it was observed, That not one in twenty of the well Persons removed fell sick, nor one in ten of the Sick died[78]. Which single Instance alone, had there been no other, should have been of Weight ever after to have determined the Magistracy against too strict Confinements. But besides this, a preceding Plague, viz. in the Year 1625, affords us another Instance of a very remarkable Decrease upon the discontinuing to shut up Houses. It was indeed so late in the Year, before this was done, that the near Approach of Winter was doubtless one Reason for the Diminution of the Disease, which followed: Yet this was so very great, that it is at least past dispute, that the Liberty then permitted was no Impediment to it. For this opening of the Houses was allowed of in the beginning of September: and whereas the last Week in August, there died no less than four thousand two hundred and eighteen, the very next Week the Burials were diminished to three thousand three hundred and forty four; and in no longer time than to the fourth Week after, to eight hundred and fifty two[79].

Since therefore the Management in former Times neither answers the Purpose of discovering the Beginning of the Infection, nor of putting a stop to it when discovered, other Measures are certainly to be taken; which, I think, should be of this Nature.

There ought, in the first Place, a Council of Health to be established, consisting of some of the principal Officers of State, both Ecclesiastical and Civil, some of the chief Magistrates of the City, two or three Physicians, &c. And this Council should be intrusted with such Powers, as might enable them to see all their Orders executed with impartial Justice, and that no unnecessary Hardships, under any Pretence whatever, be put upon any by the Officers they employ.

Instead of *ignorant old Women*, who are generally appointed *Searchers* in Parishes to inquire what Diseases People die of, that *Office* should be committed to *understanding and diligent Men*: whose Business it should be, as soon as they find any have dy'd after an uncommon Manner, particularly with *livid Spots, Bubo's*, or *Carbuncles*, to give Notice thereof to the *Council of Health*; who should immediately send skilful Physicians to examine the suspected Bodies, and to visit the Houses in the Neighbourhood, especially of the *poorer* Sort, among whom this Evil generally begins. And if upon their Report it appears, that a *Pestilential Distemper* is broken out, they should without Delay order all the Families, in which the Sickness is, to be *removed*; the *Sick* to different Places from the *Sound*: but the Houses for both should be three or four Miles out of Town; and the *Sound* People should be *stript of all*

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their Clothes, and washed and shaved, before they go into their new Lodgings. These Removals ought to be made in the Night, when the Streets are clear of People: which will prevent all Danger of spreading the Infection. And besides, all possible Care should be taken to provide such Means of Conveyance for the Sick, that they may receive no Injury.

As this Management is necessary with Respect to the *Poor* and *meaner* Sort of People; so the *Rich*, who have Conveniences, may, instead of being carried to *Lazaretto's*, be obliged to go to their Country-Houses: provided that Care be always taken to keep the *Sound* separated from the *Infected*. And at the same Time all the Inhabitants who are yet well, should be permitted, nay encouraged to leave the Town, which, the thinner it is, will be the more healthy.

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No manner of *Compassion* and *Care* should be wanting to the *Diseased*; to whom, when lodged in *clean* and *airy* Habitations, there would, with due Cautions, be no great Danger in giving Attendance. All Expences should be paid by the Publick, and no Charges ought to be thought great, which are counterbalanced with the saving a Nation from the greatest of Calamities. Nor does it seem to me at all unreasonable, that a *Reward* should be given to the Person, that makes the first Discovery of *Infection* in any Place: since it is undeniable, that the making known the *Evil* to those, who are provided with proper Methods against it, is the first and main Step towards the overcoming it.

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Although the Methods taken in other Countries, as well as in our own, have generally been different from what we have here recommended; yet there are not wanting some Instances of extraordinary Success attending these Measures, whenever they have happened to be put in Practice.

The Magistrates of the City of Ferrara in Italy in the Year 1630, when all the Country round about them was infected with the Plague, observing the ill Success of the Conduct of their Neighbours, who, for Fear of losing their Commerce, did all they could to conceal the Disease, by keeping the Sick in their Houses, resolved, whenever occasion should require, to take a different Method. Accordingly, as soon as they received Information, that one had died in their City of the Pestilence, they immediately removed the whole Family he belonged to into a Lazaretto, where all, being seven in Number, likewise died. But though the Disease was thus malignant, it went no farther, being suppressed at once by this Method. Within the Space of a Year the same Case returned seven or eight Times, and this Management as often put a Stop to it. The Example of this City was afterwards followed more than once by some other Towns in the same Territory with so good Success, that it was thought expedient, for the common Good, to publish in the Memoirs of the People of Ferrara this Declaration: That the only Remedy against the Plague is to make the most early Discovery of it, that is possible, and thus to extinguish it in the very Beginning[80].

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No less remarkable than this Occurrence at Ferrara, is what happened at Rome in the Plaque, I have taken Notice of before, in the Year 1657. When the Disease had spread itself among both Rich and Poor, and raged in the most violent Manner; the Pope appointed Cardinal Gastaldi, to be Commissary General of Health, giving him for a Time the Power of the whole Sacred College, with full Commission to do whatever he should judge necessary. Hereupon he gave strict Orders, that no sick or suspected Persons should stay in their own Houses. The Sick he removed, upon the first Notice, to a Lazaretto in the Island of the Tyber; and all who were in the same Houses with them to other Hospitals just without the City, in order to be sent to the Island, if they should fall sick. At the same Time he took diligent Care to send away their Goods to an airy Place to be cleansed. He executed these Regulations with so much Strictness, that no Persons of the highest Quality were exempted from this Treatment; which occasioned at first great Complaints against the Cardinal for his Severity; but soon after he had general Thanks: for in two Months Time, by this means, he entirely cleared the City of the *Pestilence*, which had continued in it almost two Years. And it was particularly observed, that whereas before, when once the Disease had got into a House, it seldom ended without seizing the whole Family; in this Management scarce five out of an hundred of the sound Persons removed were infected[81].

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I CANNOT but take Notice, that the *Plague* was stopp'd at *Marseilles* a full Fortnight by the same Measures, and probably might have been wholly extinguished, had not new Force been given it by the unseasonable Confidence of the Inhabitants upon this Intermission: which, we are informed, was so great, that they would not believe the *Pestilence* had been at all among them, and publickly upbraided the Physicians and Surgeons for frighting them causlesly[82]. At this Time, no doubt, they must have neglected the Cautions necessary for their Security so much, as to leave us no room to be surprized, that the Disease should after this break out again with too great Violence to be a second Time overcome.

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But, besides these Examples in foreign Countries, we have one Instance of the same Nature nearer Home. When the *Plague* was last here in *England*, upon its first Entrance into *Poole* in *Dorsetshire*, the Magistrates immediately suppress'd it, by removing the *Sick* into *Pest-Houses*, without the Town, as is well remember'd there to this Time. A very remarkable Occurrence has greatly contributed towards preserving all the Circumstances of this Transaction in Memory. They found some Difficulty in procuring any one to attend upon the *Sick* after their Removal: which obliged the Town to engage a *young Woman*, then under Sentence of Death, in that Service, on a Promise to use their Interest for obtaining her Pardon. The young Woman escaped the Disease, but neglecting to solicite the Corporation

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for the Accomplishment of their Engagement with her, three or four Months after she was barbarously hanged by the *Mayor* upon a Quarrel between them.

I would have it here observed, that as the Advice I have been giving is founded upon this Principle, that the best Method for stopping Infection, is to separate the *Healthy* from the *Diseased*; so in small Towns and Villages, where it is practicable, if the *Sound* remove themselves into *Barracks*, or the like airy Habitations, it may probably be even more useful, than to remove the *Sick*. This Method has been found beneficial in *France* after all others have failed. But the Success of this proves the Method of *Removing the Sick*, where this other cannot be practised, to be the most proper of any.

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When the sick Families are gone, all the Goods of the Houses, in which they were, should be buried deep under Ground. This I prefer to burning them: because, especially in a close Place, some infectious Particles may possibly be dispersed by the Smoak through the Neighbourhood; according to what Mercurialis relates, that the Plague in Venice was augmented by burning a large Quantity of infected Goods in the City[83]. A learned Physician of my Acquaintance lately communicated to me the Relation of a Case, (given to him by an Apothecary, who was at the Place when the Thing happened) very proper to be here mentioned. The Story is this. At Shipston, a little Town upon the River Stour in Worcestershire, a poor Vagabond was seen walking in the Streets with the Small-Pox upon him. The People frightened took Care to have him carried to a little House, seated upon a Hill, at some Distance from the Town, providing him with Necessaries. In a few Days the Man died. They ordered him to be buried deep in the Ground, and the House with his Cloaths to be burnt. The Wind, being pretty high, blew the Smoak upon the Houses on one Side of the Town: In that Part, a few Days after, eight Persons were seized with the Small-Pox. So dangerous is Heat in all Kinds of pestilential Distempers, and so diffusive of Contagion. And moreover the Houses themselves may likewise be demolished or pulled down, if that can conveniently be done; that is, if they are remote enough from others: otherwise it may suffice to have them thoroughly cleansed, and then plastered up. And after this, all possible Care ought still to be taken to remove whatever Causes are found to breed and promote Contagion. In order to this, the Overseers of the Poor (who might be assisted herein by other Officers) should visit the Dwellings of all the meaner Sort of the Inhabitants; and where they find them stifled up too close and nasty, should lessen their Number by sending some into better Lodgings, and should take Care, by all Manner of Provision and Encouragement, to make them more *cleanly* and *sweet*.

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No good Work carries its own Reward with it so much as this kind of *Charity*: and therefore, be the Expence what it will, it must never be thought unreasonable. For nothing approaches so near to the first Original of the *Plague*, as Air pent up, loaded with Damps, and corrupted with the Filthiness, that proceeds from *Animal Bodies*.

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Our common Prisons afford us an Instance of something like this, where very few escape what they call the Goal Fever, which is always attended with a Degree of Malignity in Proportion to the Closeness and Stench of the Place: and it would certainly very well become the Wisdom of the Government, as well with regard to the Health of the Town, as in Compassion to the Prisoners, to take Care, that all Houses of Confinement should be kept as airy and clean, as is consistent with the Use, to which they are designed.

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The Black Assise at Oxford, held in the Castle there in the Year 1577, will never be forgot[84]; at which the Judges, Gentry, and almost all that were present, to the Number of three hundred, were killed by a poisonous Steam, thought by some to have broken forth from the Earth; but by a noble and great Philosopher[85] more justly supposed to have been brought by the Prisoners out of the Goal into Court; it being observed, that they alone were not injured by it.

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At the same Time, that this Care is taken of *Houses*, the proper Officers should be strictly charged to see that the *Streets* be washed and kept clean from *Filth, Carrion*, and all manner of *Nusances*; which should be carried away in the *Night Time*: nor should the *Laystalls* be suffered to be too near the City. *Beggers* and *idle Persons* should be taken up, and such miserable Objects, as are neither fit for the common *Hospitals*, nor *Work-Houses*, should be provided for in an *Hospital of Incurables*.

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Orders indeed of this Kind are necessary to be observed at all Times, especially in populous Cities; and therefore I am sorry to take Notice, that in these of *London* and *Westminster* there is no good *Police* established in these Respects: for want of which the Citizens and Gentry are every Day annoyed more ways than one.

If these early *Precautions*, we have mentioned, prove successful, there will be no need of any Methods for *Correcting the Air*, *Purifying Houses*, or of *Rules for preserving particular Persons from Infection*: to all which, if the *Plague* get head, so that the *Sick* are too many to be removed (as they will be when the Disease has raged for a considerable Time) Regard must be had.

As to the *first*: Fire has been almost universally recommended for this Purpose, both by the

Ancients and Moderns; who have advised to make frequent and numerous *Fires* in the Towns infected. This *Precept*, I think, is almost entirely founded upon a Tradition, that *Hippocrates* put a stop to a *Plague* in *Greece* by this means. But it is to be observed, that there is no mention made of any Thing like it in the Works of *Hippocrates*. The best

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Authority we have for it, is the Testimony of Galen, though it is also mentioned by other Authors. Galen, recommending Theriaca against the Pestilence, has thought fit, it seems, to compare it to Fire; and, upon this Conceit, relates, that Hippocrates cured a Plague, which came from Æthiopia into Greece, by purifying the Air with Fires; into which were thrown sweet-scented Herbs, and Flowers, together with Ointments of the finest Flavour. It is remarkable, that among the Epistles ascribed to Hippocrates, which, though not genuine, yet are older than Galen, there is a Decree said to be made by the Athenians in Honour of this Father of Physicians, which, making mention of the Service he had done his Country in a Plague, says only, that he sent his Scholars into several Parts, with proper Instructions to cure the Disease. By which it should seem, that this Story of the Fires was hardly or not at all known at the Time, when these Letters were compiled. And Soranus may yet more confirm us, that it was framed long after the Death of Hippocrates: for Soranus only says in general, that Hippocrates foretold the coming of the Pestilence, and took care of the Cities of Greece; without any mention of having used this particular Expedient. Plutarch indeed speaks of a Practice like this as commonly approved among Physicians, which he makes use of to illustrate a certain Custom of the *Egyptians*: of whom he says, that they *purify* the Air by the Fumes of Resin and Myrrh, as Physicians correct the Foulness, and attenuate the Thickness thereof in Times of Pestilence, by burning Sweet-Woods, Juniper, Cypress[86] &c.

This I take to be the Sum of what can be learned from Antiquity in Relation to this Point; from whence we may see, that Writers have concluded a little too hastily for the use of common Fires in this Case, upon the Authority and Example of Hippocrates, though we should allow the Fact as related by Galen: when it will not from thence appear that Hippocrates himself relied upon them; since he thought it necessary to take in the Assistance of aromatic Fumes. But as this Fact is not grounded upon sufficient Authority, so it is needless to insist long upon it. The Passage I have brought from Plutarch will better explain what was the Sentiment of those Physicians who approved the Practice. It seems they expected from thence to dispel the Thickness and Foulness of the Air. And no doubt but such evil Dispositions of the Air, as proceed from Damps, Exhalations, and the like, may be corrected even by common Fires, and the Predisposition of it from these Causes to receive Infection sometimes removed. But I think this Method, if it be necessary, should be put in Practice before the coming of the *Pestilence*. For when the Distemper is actually *begun*, and rages, since it is known to spread and increased by the Heat of the Summer, and on the contrary checked by the Cold in Winter; undoubtedly, whatever increases that Heat, will so far add Force to the Disease: as Mercurialis takes notice, that Smiths, and all those who worked at the Fire were most severely used in the Plague at Venice in his Time[87]. Whether the Service Fires may do by correcting any other ill Qualities of the Air, will counterbalance the Inconvenience upon this Account, Experience only can determine: and the fatal Success of the Trials made here in the last Plague, is more than sufficient to discourage any farther Attempts of this Nature. For Fires being ordered in all the Streets for three Days together, there died in one Night following no less than four thousand (if we may believe Dr. Hodges:) whereas in any single Week before or after, never twice that Number were carried off[88]. And we find that upon making the same Experiment in the last Plague at Marseilles, the Contagion was every Day spread more and more thro' the City with increas'd Rage and Violence[89].

What has been said of *Fires*, is likewise to be understood of *Firing of Guns*, which some have too rashly advised. The proper Correction of the Air would be to make it *firesh* and *cool*: Accordingly the *Arabians*[90], who were best acquainted with the Nature of *Pestilences*, advise People to keep themselves as *airy* as possible, and to chuse Dwellings exposed to the Wind, situate high, and refreshed with running Waters.

As for *Houses*, the first Care ought to be to keep them *clean*: for as *Nastiness* is a great Source of *Infection*, so *Cleanliness* is the greatest Preservative; which shews us the true Reason, why the *Poor* are most obnoxious to *Contagious Diseases*. It is remarked of the *Persians*, that though their Country is surrounded every Year with the *Plague*, they seldom or never suffer any Thing by it themselves: and it is likewise known, that they are the most *cleanly* People of any in the World, and that many among them make it a great Part of their Religion to remove *Filthiness* and *Nusances* of every Kind from all Places about their Cities and Dwellings[91].

Besides this, the *Arabians* advise the keeping Houses *cool*, as another Method of their *Purification*, and therefore, to answer this End more fully, they directed to strew them with *cooling* Herbs, as *Roses*, *Violets*, *Water-Lilies*, &c. and to be washed with *Water* and *Vinegar*: than all which, especially the last, nothing more proper can be proposed. I think it not improper likewise to *fume* Houses with *Vinegar*, either alone or together with *Nitre*, by throwing it upon a *hot Iron* or *Tile*; though this be directly contrary to what modern Authors mostly advise, which is to make Fumes with hot things, as *Benzoin*, *Frankincense*, *Storax*, &c. from which I see no reason to expect any Virtue to destroy the Matter of *Infection*, or to keep particular Places from a Disposition to receive it; which are the only things here to be aimed at. The *Smoak* of *Sulphur*, perhaps, as it abounds with an *acid Spirit*, which is found by Experience to be very *penetrating*, and to have a great Power to repress *Fermentations*, may promise some Service this way.

As hot Fumes appear to be generally *useless*, so the Steams of *Poisonous Minerals* ought to be reckoned *dangerous*: and therefore I cannot but dissuade the use of all *Fumigations* with

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Mercury or Arsenic. Much less would I advise, as some have done, the wearing Arsenic upon the Pit of the Stomach as an Amulet: since this Practice has been often attended with very ill Consequences, and is not grounded upon any good Authority, but probably derived from an Error in mistaking the Arabian Word Darsini, which signifies Cinnamon, for the Latin de Arsenico, as I have formerly shewn[92].

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The next thing after the Purifying of Houses, is to consider by what Means particular Persons may best defend themselves against Contagion: for the certain doing of which, it would be necessary to put the *Humours* of the *Body* into such a State, as not to be alterable by the Matter of Infection. But since this is no more to be hoped for, than a Specific Preservative from the Small-Pox; the most that can be done, will be to keep the Body in such Order, that it may suffer as little as possible. The first Step towards which, is to maintain a good State of Health, in which we are always least liable to suffer by any external Injuries; and not to weaken the Body by Evacuations. The next is, to guard against all Dejection of Spirits, and immoderate Passions: for these we daily observe do expose Persons to the more common Contagion of the Small-Pox. These Ends will be best answered by living with Temperance upon a good generous Diet, and by avoiding Fastings, Watchings, extreme Weariness, &c. Another Defence is, to use whatever Means are proper to keep the Blood from Inflaming. This, if it does not secure from contracting Infection, will at least make the Effects of it less violent. The most proper Means for this, according to the Advice of the Arabian Physicians, is the repeated Use of acid Fruits, as Pomegranates, Sevil Oranges, Lemons, Tart Apples, &c. But above all, of Wine Vinegar in small Quantities, rendered grateful to the Stomach by the Infusion of some such Ingredients as Gentian Root, Galangal, Zedoary, Juniper Berries, &c. Which Medicines by correcting the Vinegar, and taking off some ill Effects it might otherwise have upon the Stomach, will be of good Use: but these, and all other hot aromatic Drugs, though much recommended by Authors, if used alone, are most likely to do hurt by over-heating the Blood.

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I cannot but recommend likewise the Use of Issues . The properest Place for them I take to be the inside of the Thigh a little above the Knee. Besides, the smoaking $\mathit{Tobacco}$, much applauded by some, since it may be put in Practice without any great Inconvenience, need not, I think, be neglected.

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But since none of these Methods promise any certain Protection; as *leaving* the Place infected is the surest *Preservative*, so the next to it is to avoid, as much as may be, the *near Approach* to the *Sick*, or to such as have but *lately recovered*. For the greater Security herein, it will be adviseable to avoid all *Crouds of People*. Nay, it should be the Care of the *Magistrate* to prohibit all unnecessary *Assemblies*: and likewise to oblige all, who get over the Disease, to *confine* themselves for some time, before they appear abroad.

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The Advice to keep at a Distance from the *Sick*, is also to be understood of the *Dead Bodies*; which should be *buried* at as great a Distance from Dwelling-Houses, as may be; put *deep* in the Earth; and *covered* with the exactest Care; but not with *Quick-Lime* thrown in with them, as has been the Manner abroad: For I cannot but think that *This*, by *Fermenting* with the putrefying Humours of the Carcases, may give rise to noxious Exhalations from the Ground. They should likewise be *carried out* in the *Night*, while they are yet fresh and free from *Putrefaction*: Because a Carcase not yet beginning to corrupt, if kept from the Heat of the Day, hardly emits any kind of Steam or Vapour.

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As for those, who must of necessity attend the *Sick*; some farther Directions should be added for their Use. These may be comprehended in two short Precepts. *One* is, not to *swallow their Spittle* while they are about the *Sick*, but rather to *spit* it out: *The other*, not so much as to *draw in their Breath*, when they are very near them. The reason for both these appears from what has been said above concerning the Manner, in which a sound Person receives the Infection. But in case it be too difficult constantly to comply with these *Cautions, washing* the *Mouth* frequently with *Vinegar*, and *holding* to the *Nostrils* a *Sponge* wet with the same, may in some measure supply their Place.

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This is the Sum of what I think most likely to stop the Progress of the *Disease* in any Place, where it shall have got Admittance. If some few of these Rules refer more particularly to the City of *London*, with small Alteration they may be applied to any other *Place*. It now remains therefore only to lay down some Directions to hinder the Distemper's spreading from Town to *Town*. The best Method for which, where it can be done, (for this is not practicable in very great Cities) is to cast up a *Line* about the *Town infected*, at a convenient Distance; and by placing a Guard, to hinder People's passing from it without due Regulation, to other Towns: but not absolutely to forbid any to withdraw themselves, as was done in France, according to the usual Practice abroad; which is an unnecessary Severity, not to call it a Cruelty. I think it will be enough, if all, who desire to pass the Line, be permitted to do it, upon Condition they first perform Quarantaine for about twenty Days in Tents, or other more convenient Habitations. But the greatest care must be taken, that none pass without conforming themselves to this Order; both by keeping diligent Watch, and by punishing, with the utmost Severity, any that shall either have done so, or attempt it. And the better to discover *such*, it will be requisite to oblige all, who travel in any Part of the Country, under the same Penalties, to carry with them *Certificates* either of their coming from Places not *infected*, or of their passing the *Line* by Permission.

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This I take to be a more effectual Method to keep the Infection from spreading, than the

absolute refusing a Passage to People upon any Terms. For when Men are in such imminent Danger of their Lives where they are, many, no doubt, if not otherwise allowed to escape, will use Endeavours to do it secretly, let the Hazard be ever so great. And it can hardly be, but some will succeed in their Attempts; as we see it has often happen'd in France, notwithstanding all their Care. But one that gets off thus clandestinely, will be more likely to carry the Distemper with him, than twenty, nay a hundred, that go away under the preceding Restrictions: especially because the Infection of the Place, he flies from, will by this Management be rendered much more intense. For confining People, and shutting them up together in great Numbers, will make the Distemper rage with augmented Force, even to the increasing it beyond what can be easily imagined: as appears from the Account which the learned Gassendus[93] has given us of a memorable Plague, which happened at Digne in Provence, where he lived, in the Year 1629. This was so terrible, that in one Summer, out of ten thousand Inhabitants, it left but fifteen hundred, and of them all but five or six had gone through the Disease. And he assigns this, as the principal Cause of the great Destruction, that the Citizens were too closely confined, and not suffered so much as to go to their Country-Houses. Whereas in another Pestilence, which broke out in the same Place a Year and an half after, more Liberty being allowed, there did not die above one hundred Persons.

For these Reasons, I think, to allow People with proper *Cautions* to remove from an infected Place, is the best Means to suppress the *Contagion*, as well as the most humane Treatment of the present Sufferers: and, under these Limitations, the Method of *investing* Towns infected, which is certainly the most proper, that can be advised, to keep the Disease from spreading, will be no Inconvenience to the Places *surrounded*. On the contrary, it will rather be useful to them; since the Guard may establish such *Regulations* for the Safety of those, who shall bring Provisions, as shall remove the Fears, which might otherwise discourage them

The securing against all Apprehensions of this Kind, is of so great Importance, that in *Cities* too large to be invested, as, for Example, this City of *London*, the *Magistrates* must use all possible Diligence to supply this Defect, not only by setting up *Barriers* without their City, but by making it in the most particular manner their Care to appoint such *Orders* to be observed at them, as they shall judge will be most satisfactory to the Country about.

Though Liberty ought to be given to the *People*, yet no sort of *Goods* must by any means be suffered to be carried over the *Line*, which are made of *Materials* retentive of *Infection*. For in the present Case, when *Infection* has seized any Part of a Country, much greater Care ought to be taken, that no *Seeds* of the *Contagion* be conveyed about, than when the Distemper is at a great Distance: because a *Bale of Goods*, which shall have imbibed the *Contagious Aura* when pack'd up in *Turky*, or any remote Parts, when unpack'd here, may chance to meet with so healthful a Temperament of our Air, that it shall not do much hurt. But when the Air of any one of our Towns shall be so corrupted, as to maintain and spread the *Pestilence* in it, there will be little Reason to believe, that the Air of the rest of the Country is in a much better State.

For the same Reason *Quarantaines* should more strictly be enjoined, when the *Plague* is in a bordering Kingdom, than when it is more remote.

The Advice here given with respect to Goods, is not only abundantly confirmed from the Proofs, I have given above, that Goods have a Power of spreading Contagion to distant Places; but might be farther illustrated by many Instances of ill Effects from the Neglect of this Caution in Times of the Plague. I shall mention two, which happen'd among us during the last Plague. I have had occasion already to observe, that the Plague was in Poole. It was carried to that Place by some Goods contained in a Pedlar's Pack. The Plaque was likewise at Eham in the Peak of Derbyshire, being brought thither by means of a Box sent from London to a Taylor in that Village, containing some Materials relating to his Trade. There being several Incidents in this latter Instance, that will not only serve to establish in particular the Precepts I have been giving, in relation to Goods, but likewise all the rest of the Directions, that have been set down, for stopping the Progress of the *Plague* from one Town to another; I shall finish this Chapter with a particular Relation of what passed in that Place. A Servant, who first opened the foresaid *Box*, complaining that the Goods were damp, was ordered to dry them at the Fire; but in doing it, was seized with the Plague, and died: the same Misfortune extended itself to all the rest of the Family, except the Taylor's Wife, who alone survived. From hence the Distemper spread about and destroyed in that Village, and the rest of the Parish, though a small one, between two and three hundred Persons. But notwithstanding this so great Violence of the Disease, it was restrained from reaching beyond that Parish by the Care of the Rector; from whose Son, and another worthy Gentleman, I have the Relation. This Clergyman advised, that the Sick should be removed into Hutts or Barracks built upon the Common; and procuring by the Interest of the then Earl of Devonshire, that the People should be well furnished with Provisions, he took effectual Care, that no one should go out of the Parish: and by this means he protected his Neighbours from Infection with compleat Success.

I have now gone through the chief Branches of *Preservation* against the *Plague*, and shall conclude with some general Directions concerning the *Cure*.

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CHAP. III.

Of the Cure of the Plaque.

 ${f I}$ T appears, from what has been said in the beginning of this Discourse, that the *Plague* and the *Small-Pox* are Diseases, which bear a great Similitude to each other: both being Contagious Fevers from Africa, and both attended with certain Eruptions. And as the Eruptions or Pustules in the Small-Pox are of two Kinds, which has caused the Distemper to be divided into two Species, the distinct and confluent; so we have shewn two Sorts of Eruptions or Tumors likewise to attend the Plaque. In the first and mildest Kind of the Small-Pox the Pustules rise high above the Surface of the Skin, and contain a digested Pus; but in the other, the *Pustules* lie flat, and are filled with an indigested *Sanies*. The two kinds of critical Tumors in the Plaque are yet more different. In the most favourable Case the Morbific Matter is thrown upon some of the softest Glands near the Surface of the Body, as upon the inguinal, axillary, parotid, or maxillary Glands: the first Appearance of which is a small Induration, great Heat, Redness, and sharp Pain near those Glands. These Tumors, if the Patient recover, like the *Pustules* of the distinct *Small-Pox*, come to a just Suppuration, and thereby discharge the Disease. In worse Cases of the Distemper, either instead of these Tumors, or together with them, Carbuncles are raised. The first Appearance of them is a very small indurated Tumor, not situate near any of the fore-mention'd Glands, with a dusky Redness, violent Heat, vast Pain, and a blackish Spot in the middle of the Tumor. This Spot is the beginning of a *Gangrene*, which spreads itself more and more as the *Tumor* increases.

But, besides the Agreement in these critical Discharges, the two Distempers have yet a more manifest Likeness in those *livid* and *black Spots*, which are frequent in the *Plague*, and the Signs of speedy Death: for the same are sometimes found to attend the *Small-Pox* with as fatal a Consequence; nay, I have seen Cases, when almost every *Pustule* has taken this Appearance. Moreover, in both Diseases, when eminently malignant, Blood is sometimes voided by the Mouth, by Urine, or the like[94]. And we may farther add, that in both Death is usually caused by Mortifications in the *Viscera*. This has constantly been found in the *Plague* by the Physicians in *France*: and I am convinced, from Accounts I have by me, of the Dissection of a great many, who had died of the *Small-Pox*, that it is the same in that Distemper.

This Analogy between the two Diseases, not only shews us, that we cannot expect to cure the *Plague* any more than the *Small-Pox*, by *Antidotes* and *Specific Medicines*; but will likewise direct us in the Cure of the Distemper, with which we are less acquainted, by the Methods found useful in the other Disease, which is more familiar to us.

In short, as in the *Small-Pox*, the chief Part of the Management consists in clearing the *Primæ Viæ* in the beginning; in regulating the Fever; and in promoting the natural Discharges: so in the *Plague* the same Indications will have Place. The great Difference lies in this, that in the *Plague* the Fever is often much more acute than in the other Distemper; the Stomach and Bowels are sometimes inflamed; and the Eruptions require external Applications, which to the *Pustules* of the *Small-Pox* are not necessary.

When the Fever is very acute, a cool *Regimen*, commonly so beneficial in the *Small-Pox*, is here still more necessary. But whenever the Pulse is languid, and the Heat not excessive, moderate Cordials must be used.

The Disposition of the Stomach and Bowels to be inflamed, makes *Vomiting* not so generally safe in the *Plague* as in the *Small-Pox*. The most gentle *Emetics* ought to be used, none better than *Ipecacuanha*; and great Caution must be had, that the Stomach or Bowels are not inflamed, when they are administer'd: for if they are, nothing but certain Death can be expected from them: otherwise at the beginning they will be always useful. Therefore upon the first Illness of the Patient it must carefully be considered, whether there appear any Symptoms of an Inflammation having seized these Parts: if there are any Marks of this, all *Vomits* must be omitted; if not, the Stomach ought to be gently moved.

The *Eruptions*, whether *glandular Tumors*, or *Carbuncles*, must not be left to the Course of Nature, as is done in the *Small-Pox*; but all Diligence must be used, by external Applications, to bring them to *Suppurate*. Both these *Tumors* are to be treated in most respects alike. As soon as either of them appears, fix a *Cupping-Glass* to it without *scarifying*; and when that is removed, apply a *suppurative Cataplasm*, or *Plaster* of warm Gums.

If the *Tumors* do not come to *Suppuration*, which the *Carbuncle* seldom or never does; but if a thin *Ichor* or Matter exudes through the Pores; or if the *Tumor* feel soft to the Touch; or lastly, if it has a black *Crust* upon it, then it must be *opened* by *Incision*, either according to the length of the *Tumor*, or by a *crucial Section*. And if there is any Part *mortified*, as is usually in the *Carbuncle*, it must be *scarified*. This being done, it will be necessary to stop the Bleeding, and dry up the *Moisture* with an *actual Cautery*, dressing the Wound afterwards with *Dossils*, and *Pledgits* spread with the common *Digestive* made with *Terebinth. cum Vitel. Ov.* and dip'd in a Mixture of two Parts of warmed Oil of *Turpentine*,

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The next Day the Wound ought to be well *bathed* with a *Fomentation* made of warm *aromatic* Plants with Spirit of Wine in it; in order, if possible, to make the Wound digest, by which the *Sloughs* will separate. After this the *Ulcer* may be treated as one from an ordinary *Abscess*.

of Theriac. Lond.

Farther, in the *glandular Tumors*, when they suppurate, we ought not to wait, till the *Matter* has made its way to the outer Skin, but to open it as soon as it is risen to any Bigness: because these *Tumors* begin deep in the Gland, and often mortify, before the Suppuration has reached the Skin, as the Physicians in *France* have found upon dissecting many dead Bodies

This is the Method in which the *Plague* must be treated in following the natural Course of the Distemper. But the Patient in most Cases runs so great Hazard in this way, notwithstanding the utmost Care, that it would be of the greatest Service to Mankind under this Calamity, if some artificial Discharge for the corrupted Humours could be found out, not liable to so great Hazard, as the natural Way. To this Purpose *large Bleeding* and *profuse Sweating* are recommended to us upon some Experience.

Dr. Sydenham tried both these Evacuations with good Success, and has made two very judicious Remarks upon them. The *first* is, that they ought not to be attempted unless in the Beginning of the Sickness, before the natural Course of the Distemper has long taken Place: because otherwise we can only expect to put all into Confusion without any Advantage. His *other* Observation is, that we cannot expect any prosperous Event from either of these Evacuations, unless they are very copious: there being no Prospect of surmounting so violent a Malignity without bolder Methods than must be taken in ordinary Cases.

As for *Bleeding*, by some Accounts from *France*, I have been informed, that some of the Physicians there have carried this Practice so far, as upon the first Day of the Distemper to begin with bleeding about twelve Ounces, and then to take away four or five Ounces every two Hours after. They pretend to extraordinary Success from this Method, with the Assistance only of cooling *Ptisanes*, and such like Drinks, which they give plentifully at the same Time. Such profuse Bleeding as this may perhaps not suit with our Constitutions so well as with theirs; for in common Cases they use this Practice much more freely than we: Yet we must draw Blood with a more liberal Hand than in any other Case, if we expect Success from it. I shall excuse myself from defining exactly how large a Quantity of Blood is requisite to be drawn, for want of particular Experience: but I think fit to give this Admonition, that, in so desperate a Case as this, it is more prudent to run some hazard of exceeding, than to let the Patient perish for want of due Evacuation.

As for *Sweating*, which is the other Method proposed, it ought, no doubt, to be continued without Intermission full twenty-four Hours, as Dr. *Sydenham* advises. He is so particular in his Directions about it, that I need say little. I shall only add, that *Theriaca*, and the like solid Medicines, being offensive to the Stomach, are not the most proper *Sudorifics*. I should rather commend an Infusion in boiling Water of *Virginia Snake-Root*, or, in want of this, of some other warm *Aromatic*, with the Addition of about a fourth Part of *Aqua Theriacalis*, and a proper Quantity of Syrup of Lemons to sweeten it. From which, in Illnesses of the same kind with the *Goal Fever*, which approaches the nearest to the *Pestilence*, I have seen very good Effects.

Whether either of these Methods, of *Bleeding*, or of *Sweating*, will answer the Purpose intended by them, must be left to a larger Experience to determine; and the Trial ought by no means to be neglected, especially in those Cases, which promise but little Success from the natural Course of the Disease.

FINIS.



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Footnotes:

- [1] See the Dedication.
- [2] Vide Huet. De rebus ad eum pertinentibus, pag. 23.
- [3] Observations sur la Peste de Marseille, p. 38, 39, 40.
- [4] Ibid. p. 113.
- [5] Vid. Philos. Transactions N^o. 370.
- [6] Le Journal des Sçavans, 1722. pag. 279.
- [7] Vid. Dissertation sur la Contagion de la Peste. A Toulouse 1724.
- [8] Vid. Mechanical Account of Poisons, pag. 24.
- [9] Vid. Philos. Trans. No. 372.
- [10] Vid. Lettre de Messieurs Le Moine et Bailly.
- [11] Astruc, Dissertation sur la Contagion de la Peste. A Toulouse, 1724. 8°.
- [12] Diemerbroek De Peste, p. 120.
- [13] In these Words, Where it can be done.
- [14] Vid. the Gazettes of the Years 1665. and 1666.
- [15] Celsus de Medic. in Praesat. Morbos ad iram deorum immortalium relatos esse, et ab iisdem opem posci solitam.
- [16] Libr. De morbo sacro; et libr. De aëre, locis, et aquis.
- [17] Observat. et Reflex, touchant la Nature, etc. de la Peste de Marseilles, pag. 47. et suiv.
- [18] Journal de la Contagion à Marseilles, pag. 6.
- [19] Lib. 2. Ότι ἔτερος ἀφ' ἐτέρου, θεραπείας ἀναπιμπλάμενοι, ὤσπερ τὰ πρόβατα ἔθνησκον· καὶ τὸν πλεῖστον φθόρον τοῦτο ἐνεποίει· εἴτε γὰρ μὴ θέλοιεν δεδιότες ἀλλήλοις προσιέναι, ἀπώλλυντο ἔρημοι, καὶ οἰκίαι πολλαὶ ἐκενώθησαν ἀπορία τοῦ θεραπεύσαντος· εἴτε προσίοιεν, διεφθείροντο, καὶ μάλιστα οἱ ἀρετῆς τι μεταποιούμενοι. The beginning of this Passage, as it here stands, though it is found thus in all the Editions of Thucydides, is certainly faulty, θεραπείας ἀναπιμπλάμενοι being no good Sense. The Sentence I shall presently cite from Aristotle shews that this may be rectified only by removing the Comma after ἐτέρου, and placing it after θεραπείας, for προσαναπίμπλημι in Aristotle absolutely used signifies to infect. With this Correction, the Sense of the Place will be as follows: The People took Infection by their Attendance on each other, dying like Folds of Sheep. And this Effect of the Disease was the principal Cause of the great Mortality: for either the Sick were left destitute, their Friends fearing to approach them, by which means Multitudes of Families perished without Assistance; or they infected those who relieved them, and especially such, whom a Sense of Virtue and Honour obliged most to their Duty.

The Sense here ascribed to the word $\dot{\alpha}\nu\alpha\pi(\mu\pi\lambda\eta\mu)$ is confirmed yet more fully by a Passage in *Livy*, where he describes the Infection attending a Plague or Camp Fever, which infested the Armies of the *Carthaginians* and *Romans* at the Siege of *Syracuse*, in such words, as shew him to have had this Passage of *Thucydides* in view; for he says, *aut neglecti desertique*, *qui incidissent*, *morerentur*; *aut assidentes curantesque eadem vi morbi repletos secum traherent*. Lib. xxv. c. 26.

[20] L. 6. V. 1234.

—nullo cessabant tempore apisci Ex aliis alios avidi contagia morbi.

Et N. 1241.

Qui fuerant autem praesto, Contagibus ibant.

- [21] Sect. Ι. Διὰτί ποτε ὁ λοιμὸς μόνη τῶν νόσων μάλιστα τους πλησιάζοντας τοῖς Θεραπευομένοις προσαναπίμπλησι;
- [22] Περὶ διαφορᾶς πυρετῶν, βιβ. α'.
- [23] De Peste, c. iv. annot. 6.
- [24] Evagrii Histor. Eccles. l. iv. c. 29.
- [25] Gastaldi De avertenda et profliganda Peste, p. 117.

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[26] Ibid. p. 118.
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- [27] Ibid. p. 117.
- [28] See Bills of Mortality for the Year 1665.
- [29] The Sweating Sickness.
- [30] Nat. Hist. l. vii. c. 50.
- [31] Histor. l. ii.
- [32] Histor. Ecclesiast. l. iv. c. 29.
- [33] De Bello Persico, l. ii. c. 22.
- [34] Vid. Hodges De Peste.
- [35] Vid. Istorie di Matteo Villanni, l. I. c. 2.
- [36] Mezeray Hist. de France, Tom. i. p. 798.
- [37] Villani, loco citato.
- [38] Vid. Huet. Histoire du Commerce des Anciens, p. 88.
- [39] Relation Historique de tout ce qui s'est passé à Marseille pendant la derniere Peste.
- [40] Vid. Serv. Comment. in Virgil. Æneid, l. iii. ¥. 57.
- [41] This was a kind of Expiatory Sacrifice, as the Scape-Goat among the Jews, Levit. xvi. And the Wretches thus devoted to dye for the Sins of the People were called Καθάρματα, Purgations. Vid. Aristophan. in Plut. ver. 454. et in Equit. ver. 1133. et Scholiast. ibid. Suidas adds that when the Sacrificed Person was cast into the Water, these Words were pronounced, Περίψημα ἡμῶν γενοῦ, Be thou our Cleansing. And I observe, by the by, that the Apostle Paul, 1 Corinth. iv. 13. alluding very probably to this wicked Custom, makes use of both these Words, where speaking of himself in the plural number, he says, ὑς περικαθάρματα τοῦ κόσμου ἐγενήθημεν, πάντων περίψημα; for some of the best MSS. instead of ὑς περικαθάρματα, read ισπερ, or ισπερεί καθάρματα; that is, We have been looked upon as Wretches fit only to be Sacrificed for the Public good, and cast out of the World by way of Attonement for the Sins of the whole Society.
- [42] Vid. Le Brun Voyage au Levant, c. 38.
- [43] Vid. Ludolf. Histor. Æthiop. lib. i. c. 13. et D. August. De civitat. Dei, lib. iii. c. ult.
- [44] Vid. Ludolf. Histor. Æthiop. lib. i. c. 5. et Comment.
- [45] J. Leo Hist. Afric. lib. i.
- [46] Lib. vi. ¥ 1100.
- [47] Rhas. et Avicen.
- [48] Essay on Poysons, p. 178.
- [49] Cicero de Nat. Deor. lib. i. § 36. speaking of these Birds, says: Avertunt Pestem ab Aegypto, cum volucres angues ex vastitate Libyae vento Africo invectas interficiunt atque consumunt; ex quo fit ut illae nec morsu vivae noceant, nec odore mortuae.
- [50] Newton's Optics, Qu. 18 to 24.
- [51] Gastaldi, De Peste, p. 116.
- [52] Journal de ce qui s'est passé à Marseilles, etc.
- [53] Vid. The London Gazette, July 23, 1743.
- [54] Kircher, Langius, &c.
- [55] Toulon, Traité de la Peste.
- [56] *Hippocr.* Epid. l. iii. That *Hippocrates* describes here the Constitution of Air accompanying the true *Plague*, contrary to what some have thought, *Galen* testifies in his Comment upon this Place, in libr. De Temper. l. i. c. 4. and in lib. De differentiis Febr. lib. i. c. 4.
- [57] Vid. Mercurial. Prælect. De Pestilent.
- [58] Notitia Eccles. Diniensis.
- [59] Histor. lib. lxii.
- [60] Sydenham De Peste.
- [61] Vid. Caium, De Febr. Ephemer. Britan. and Lord Bacon's History of Henry VII.
- [62] Pag. 162. Edit. Lovan.

- [63] Vid. Rondinelli Contagio in Firenze, et Summonte Histor. di Napoli.
- [64] Lord *Herbert's History of Henry* VIII.
- [65] Thuani Histor. lib. 5.
- [66] Lord Verulam's History of Henry VII.
- [67] Vide Sydenham, De Peste, An. 1665.
- [68] Boccaccio Decameron. Giornat. prim.
- [69] De Contagione, l. iii. c. 7.
- [70] Observat. l. vi. Schol. ad Observ. 22.
- [71] Diemerbroeck, De Peste, l. 1. c. 4.
- [72] Memorials presented by the Deputies of the Council of Trade, in *France*, to the Royal Council, Pag. 44 and 45.
- [73] Alex. Benedict. De Peste, cap. 3.
- [74] In a Paper of Advice against the *Plague*, laid before the King and Council by Sir *Theod. Mayerne* in the Year 1631. *MS*.
- [75] Hodges, De Peste.
- [76] Vid. Directions for the Cure of the Plague by the College of Physicians; and Orders by the Lord Mayor and Aldermen of London, published 1665.
- [77] Vid. a Journal of the Plague in 1665. by a Citizen. London, 1722.
- [78] Discourse upon the Air, by Tho. Cock.
- [79] Vid. The shutting up Houses soberly debated, Anno 1665.
- [80] Muratori governo della Peste, lib. I. c. 5.
- [81] Cardin. Gastaldi, De avertendâ Peste, c. 10.
- [82] Journal de ce qui s'est passé à Marseilles, &c. p. 9, 10, 11.
- [83] De Pestilent. cap. 21.
- [84] Camden. Annal. Regin. Elizab.
- [85] Lord Verulam, Natural History, Cent. 10. Num. 194.
- [86] Plutarch lib. de Isid. et Osir.
- [87] De Peste, c. 22.
- [88] Hodges, De Peste, pag. 24.
- [89] Journal de la Peste de Marseilles, pag. 19. et Relation Historique de tout ce qui s'est passé à Marseilles pendant la derniere Peste, pag. 77.
- [90] Rhazes, De re Medica, lib. 4. c. 24. & Avicenn. Can. Med. lib. 4. c. 1.
- [91] Gaudereau Relation des Especes de la Peste que reconnoissent les Orientaux.
- [92] Mech. Account of Poisons, Essay III.
- [93] Notitia Ecclesiae Diniensis.
- [94] Vid. Observ. et Reflex. sur la Peste de Marseilles, p. 333.

Transcriber's Notes:

Long "s" has been modernized.

Greek ligatures have been expanded to individual letters.

Greek variants for single letters have been modernized.

Other than the corrections noted by hover information, inconsistencies in spelling and hyphenation have been retained from the original.

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