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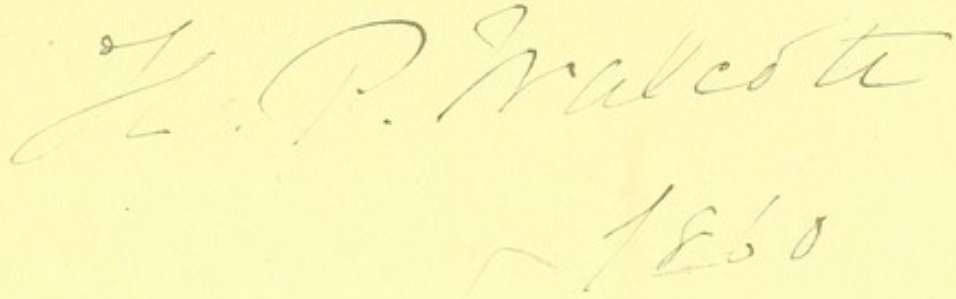
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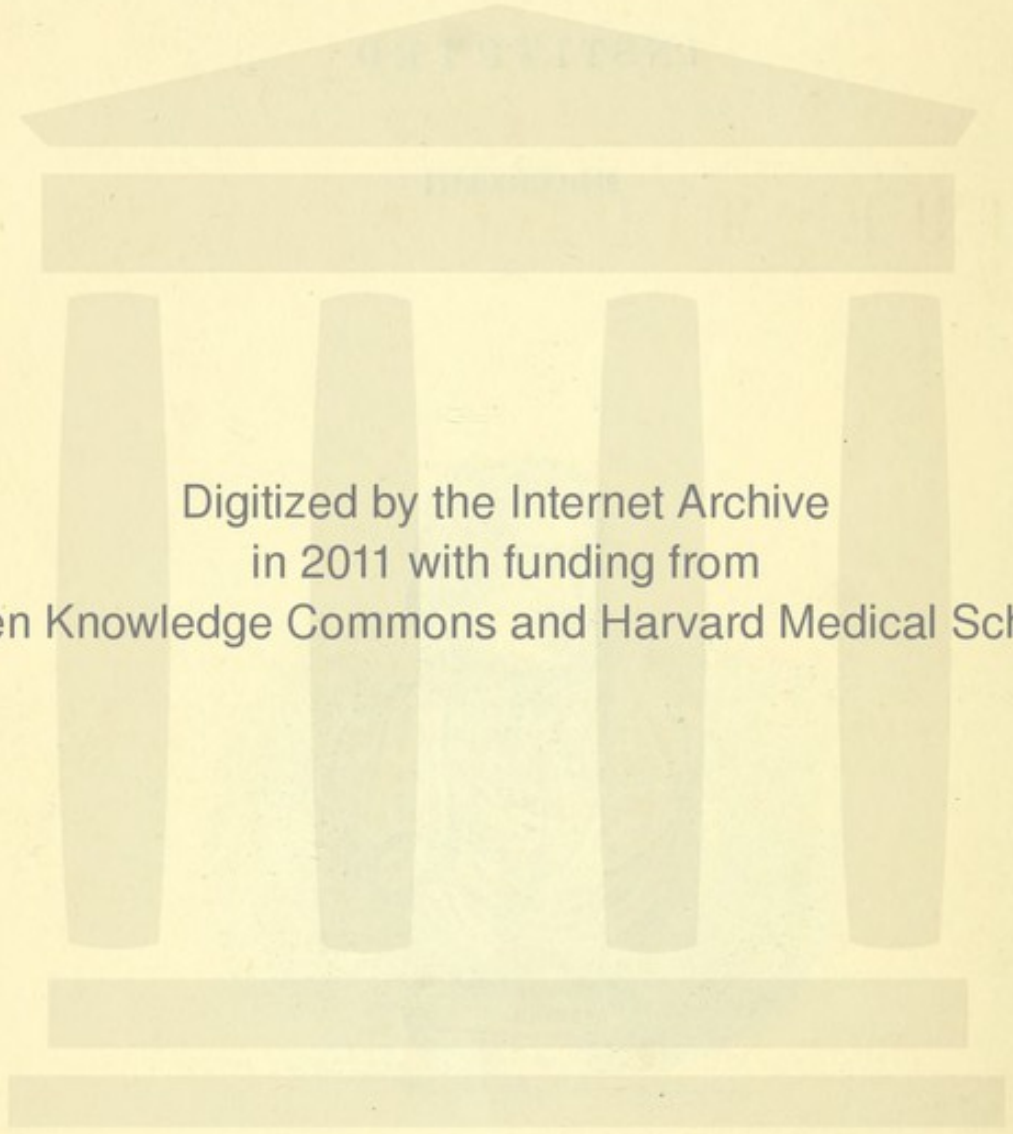
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THE

EPIDEMICS

OF

THE MIDDLE AGES.

FROM THE GERMAN OF

J. F. C. HECKER, M.D.

PROFESSOR AT FREDERICK WILLIAM'S UNIVERSITY AT BERLIN,
AND MEMBER OF VARIOUS LEARNED SOCIETIES IN
ALBANY, BERLIN, BONN, COPENHAGEN, DIJON, DRESDEN, ERLANGEN, HANAU,
HEIDELBERG, LEIPZIG, LONDON, LYONS, MARSEILLES, METZ, NAPLES,
NEW YORK, OFFENBURG, PHILADELPHIA, STOCKHOLM,
TOULOUSE, WARSAW AND ZURICH.

TRANSLATED BY

B. G. BABINGTON, M.D. F.R.S.,

ETC.

LONDON

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JOHN CHILDS AND SON, PRINTERS.

GENERAL PREFACE.

THE Council of the SYDENHAM SOCIETY having deemed Hecker's three treatises on different Epidemics occurring in the Middle Ages worthy of being collected into a volume, and laid before its members in an English dress, I have felt much pleasure in presenting them with the copyright of the Black Death; in negociating for them the purchase of that of the Dancing Mania, whereof I could resign only my share of a joint interest; and, in preparing for the press these productions, together with a translation, now for the first time made public, of the Sweating Sickness. This last work, from its greater length, and from the immediate relation of its chief subject to our own country, may be considered the most interesting and important of the series.

Professor Hecker is generally acknowledged to be the most learned medical historian, and one of the most able medical writers in Germany. His numerous works suffice to show not only with what zeal he has laboured, but also how highly his labours have been appreciated by his countrymen; and when I state that, with one trifling exception, they have all been translated into other languages, I furnish a fair proof of the estimation in which they are held in foreign countries; and, so far at least as regards the originals, a full justification of the Council of the Sydenham Society in their choice on the present occasion.

The "Schwarze Tod," or "Black Death," was published in 1832; and I was prompted to undertake its translation, from a belief that it would prove interesting at a moment when another fearful epidemic, the Cholera, with which it admitted of comparison in several particulars, was fresh in the memory of men. The "Tanzwuth," or "Dancing Mania," came out shortly afterwards; and, as it appeared to me that, though relating to a less terrific visitation, it possessed an equal share of interest, and, holding a kind of middle place between a physical and a moral

pestilence, furnished subject of contemplation for the general as well as the professional reader, I determined on adding it also to our common stock of medical literature. When the "Englische Schweiss," or "Sweating Sickness," which contained much collateral matter little known in England, and which completed the history of the principal epidemics of the middle ages, appeared in 1834, I proceeded to finish my task; but failing in the accomplishment of certain arrangements connected with its publication, I laid aside my translation for the time, under a hope, which has at length been fulfilled, that at some future more auspicious moment, it might yet see the light.

It must not be supposed that the author, in thus taking up the history of three of the most important epidemics of the middle ages, although he has illustrated them by less detailed notices of several others, considers that he has exhausted his subject; on the contrary, it is his belief, that, in order to come at the secret springs of these general morbific influences, a most minute as well as a most extended survey of them, such as can be made only by the united efforts of many, is required. He would seem to aim at collecting together such a number of facts, from the medical history of all countries and of all ages, as may at length enable us to deal with epidemics in the same way as Louis has dealt with individual diseases; and thus by a numerical arrangement of data, together with a just consideration of their relative value, to arrive at the discovery of general laws. The present work, therefore, is but one stone of an edifice, for the construction of which he invites medical men in all parts of the world to furnish materials.[1]

Whether the information which could be collected even by the most diligent and extensive research would prove sufficiently copious and accurate to enable us to pursue this method with complete success, may be a matter of doubt; but it is at least probable, that many valuable facts, now buried in oblivion, would thus be brought to light; and the incidental results, as often occurs in the pursuit of science, might prove as serviceable as those which were the direct object of discovery. Of what immense importance, for instance, in the fourteenth century, would a general knowledge have been of the simple but universal cir-

[1] I might here enlarge on the general importance of the study of epidemics; but this has been so fully set forth in the author's Address to the Physicians of Germany, which immediately follows, as well as in the Preface to the Sweating Sickness, at p. 164, that any further observations on this subject would be superfluous on my part.

cumstance, that in all severe epidemics, from the time of Thucydides[1] to the present day, a false suspicion has been entertained by the vulgar, that the springs or provisions have been poisoned, or the air infected, by some supposed enemies to the common weal. How many thousands of innocent lives would thus have been spared, which were barbarously sacrificed under this absurd notion!

Whether Hecker's call for aid in his undertaking has, in any instance, been answered by the physicians of Germany, I know not; but he will be as much pleased to learn, as I am to inform him, that it was the perusal of the "Black Death" which suggested to Dr. Simpson of Edinburgh the idea of collecting materials for a history of the Leprosy, as it existed in Great Britain during the middle ages; and that this author's very learned and interesting antiquarian researches on that subject, as published in the Edinburgh Medical and Surgical Journal, have been the valuable, and, I trust, will not prove the solitary result.

As the three treatises, now comprised for the first time under the title of "The Epidemics of the Middle Ages," came out at different periods, I have thought it best to prefix to each the original preface of the author; and to the two which have already been published in English, that of the translator also; while Hecker's Address to the Physicians of Germany, although written before the publication of the "Englische Schweiss," forms an appropriate substitute for an author's general preface to the whole volume.

At the end of the "Black Death," I had originally given, as No. III. of the Appendix, some copious extracts from Caius' "Boke or Counseill against the Disease commonly called the Sweate or Sweatyng Sicknesse;" but this little treatise is so characteristic of the times in which it is written, so curious, so short, and so very scarce,[2] that I have thought it worth while, with the permission of the council of our Society, to reprint it entire, and to add it in its more appropriate place, as an Appendix to the Sweating Sickness.

[1] *ὥστε καὶ ἐλέχθη ὑπ' αὐτῶν ὡς οἱ Πελοποννήσιοι φάρμακα εσβεβλήκοιεν ἐς τὰ φρέατα. Thucyd. Hist.* B. ii. 49. "The disease was attributed by the people to poison, and nothing apparently could be more authentic than the reports that were spread of miscreants taken in the act of putting poisonous drugs into the food and drink of the common people." Observations on the Cholera in St. Petersburg, p. 9, by G. W. Lefevre, M.D. 8vo. 1831.

[2] Only two copies are known to exist, one in the British Museum, and one in the library of the College of Physicians.

ADDRESS

TO THE

PHYSICIANS OF GERMANY.

By J. F. C. HECKER.

It has long been my earnest desire to address my honoured colleagues, especially those with whom I feel myself connected by congeniality of sentiment, in order to impress on them a subject in which science is deeply interested, and which, according to the direct evidence of Nature herself, is one of the most exalted and important that can be submitted to the researches of the learned. I allude to the investigation of Epidemic Diseases, on a scale commensurate with the extent of our exertions in other departments, and worthy of the age in which we live. It is, with justice, required of medical men, since their sole business is with life, that they should regard it in a right point of view. They are expected to have a perception of life, as it exists individually and collectively: in the former, to bear in mind the general system of creation; in the latter, to demonstrate the connexion and signification of the individual phenomena,—to discern the one by the aid of the other, and thus to penetrate, with becoming reverence, into the sanctuary of cosmical and microcosmical science. This expectation is not extravagant, and the truth of the principles which the medical explorer of nature deduces from it, is so obvious, that it seems scarcely possible that any doubts should be entertained on the subject.

Yet we may ask, Has medical science as it exists in our days, with all the splendour which surrounds it, with all the perfection of which it boasts, satisfied this demand? This question we are obliged to answer in the negative.

Let us consider only the doctrine of diseases, which has been cultivated since the commencement of scientific study. It has

grown up amid the illumination of knowledge and the gloom of ignorance; it has been nurtured by the storms of centuries; its monuments of ancient and modern times cannot be numbered, and it speaks clearly to the initiated, in the languages of all civilized nations. Yet, hitherto, it has given an account only of individual diseases, so far as the human mind can discern their nature. In this it has succeeded admirably, and its success becomes every year greater and more extensive.

But if we extend our inquiries to the diseases of nations, and of the whole human race, science is mute, as if it were not her province to take cognizance of them; and shows us only an immeasurable and unexplored country, which many suppose to be merely a barren desert, because no one to whose voice they are wont to listen, gives any information respecting it. Small is the number of those who have traversed it; often have they arrested their steps, filled with admiration at striking phenomena; have beheld inexhaustible mines waiting only for the hand of the labourer, and, from contemplating the development of collective organic life, which science nowhere else displays to them on so magnificent a scale, have experienced all the sacred joy of the naturalist to whom a higher source of knowledge has been opened. Yet could they not make themselves heard in the noisy tumult of the markets, and still less answer the innumerable questions directed to them by many, as from one mouth, not indeed to inquire after the truth, but to obtain a confirmation of an anciently received opinion, which originated in the fifth century before our era.

Hence it is, that the doctrine of epidemics, surrounded by the other flourishing branches of medicine, remains alone unfruitful—we might almost say stunted in its growth. For, to the weighty opinions of Hippocrates, to the doctrines of Fracastoro which contain the experience of the much-tried Middle Ages, and lastly to the observations of Sydenham, only trifling and isolated facts have been added. Beyond these facts there exist, even up to the present times, only assumptions, which might, long since, have been reduced to their original nothingness, had that serious spirit of inquiry prevailed which comprehends space and penetrates ages.

No epidemic ever prevailed during which the need of more accurate information was not felt, and during which the wish of the learned was not loudly expressed, to become acquainted with the secret springs of such stupendous engines of destruction. Was the disease of a new character?—the spirit of inquiry was roused

among physicians; nor were the most eminent of them ever deficient either in courage or in zeal for investigation. When the glandular plague first made its appearance as an universal epidemic, whilst the more pusillanimous, haunted by visionary fears, shut themselves up in their closets, some physicians at Constantinople, astonished at the phenomenon, opened the boils of the deceased. The like has occurred both in ancient and modern times, not without favourable results for science; nay, more matured views excited an eager desire to become acquainted with similar or still greater visitations among the ancients; but as later ages have always been fond of referring to Grecian antiquity, the learned of those times, from a partial and meagre predilection, were contented with the descriptions of Thucydides, even where nature had revealed, in infinite diversity, the workings of her powers.

These researches, if indeed they deserved that name, were never scientific or comprehensive. They never seized but upon a part, and no sooner had the mortality ceased, than the scarcely awakened zeal relapsed into its former indifference to the interesting phenomena of nature, in the same way as abstemiousness, which had ever been practised during epidemics, only as a constrained virtue, gave place, as soon as the danger was over, to unbridled indulgence. This inconstancy might almost bring to our mind the pious Byzantines who, on the shock of an earthquake, in 529, which appeared as the prognostic of the great epidemic, prostrated themselves before their altars by thousands, and sought to excel each other in Christian self-denial and benevolence; but no sooner did they feel the ground firm beneath their feet, than they again abandoned themselves, without remorse, to all the vices of the metropolis. May I be pardoned for this comparison of scientific zeal with other human excitements? Alas! even this is a virtue which few practise for its own sake, and which, with the multitude, stands quite as much in need as any other, of the incentives of fear and reward.

But we are constrained to acknowledge that among our medical predecessors, these incentives were scarcely ever sufficiently powerful to induce them to leave us circumstantial and scientific accounts of contemporary epidemics, which, nevertheless, have, even in historical times, afflicted, in almost numberless visitations, the whole human race. Still less did it occur to them to take a more exalted stand, whence they could comprehend at one view these stupendous phenomena of organic collective life, wherein

the whole spirit of humanity powerfully and wonderfully moves, and thus regard them as one whole, in which higher laws of nature, uniting together the utmost diversity of individual parts, might be anticipated or perceived.

Here a wide, and almost unfathomable, chasm occurs in the science of medicine, which, in this age of mature judgment and multifarious learning, cannot, as formerly, be overlooked. History alone can fill it up; she alone can give to the doctrine of diseases that importance without which its application is limited to occurrences of the moment; whereas the development of the phenomena of life, during extensive periods, is no less a problem of research for the philosopher, who makes the boundless science of nature his study, than the revolutions of the planet on which we move. In this region of inquiry the very stones have a language, and the inscriptions are yet legible which, before the creation of man, were engraved by organic life in wondrous forms on eternal tablets. Exalted ideas of the monuments of primæval antiquity are here excited, and the forms of the antemundane ways and creations of nature are conjured up from the inmost bosom of the earth, in order to throw their bright beaming light upon the surface of the present.

Medicine extends not so far. The remains of animals make us indeed acquainted, even now, with diseases to which the brute creation was subject long ere the waters overflowed, and the mountains sunk; but the investigation which is our more immediate object, scarcely reaches to the beginning of human culture. Records of remote and of proximate eras lie before us in rich abundance. They speak of the deviations and destructions of human life, of exterminated and newly-formed nations; they lay before us stupendous facts, which we are called upon to recognise and expound in order to solve this exalted problem. If physicians cannot boast of having unrolled these records with the avidity of true explorers of Nature, they may find some excuse in the nature of the inquiry —for the characters are dead, and the spirits of which they are the magic symbols, manifest themselves only to him who knows how to adjure them. Epidemics leave no corporeal traces; whence their history is perhaps more intellectual than the science of the Geologist, who, on his side, possesses the advantage of treating on subjects which strike the senses, and are therefore more attractive,—such as the impressions of plants no longer extant, and the skeletons of lost races of animals. This, however, does not entirely exculpate us from the charge of neglecting our science, in a

quarter where the most important facts are to be unveiled. It is high time to make up for what has been left unaccomplished, if we would not remain idle and mean-spirited in the rear of other naturalists.

I was animated by these and similar reflections, and excited too by passing events, when I undertook to write the history of the "Black Death." With some anxiety, I sent this book into the world, for it was scarcely to be expected that it would be everywhere received with indulgence, since it belonged to a hitherto unknown department of historical research, the utility of which might not be obvious in our practical times. Yet I soon received encouragement, not only from learned friends, but also from other men of distinguished merit, on whose judgment I placed great reliance; and thus I was led to hope that it was not in vain, and without some advantage to science, that I had unveiled the dismal picture of a long-departed age.

This work I have followed up by a treatise on a nervous disorder, which, for the first time, appeared in the same century, as an epidemic, with symptoms that can be accounted for only by the spirit of the Middle Ages—symptoms which, in the manner of the diffusion of the disease among thousands of people, and of its propagation for more than two centuries, exercised a demoniacal influence over the human race, yet in close, though uncongenial, alliance with kindlier feelings. I have prepared materials for various other subjects, so far as the resources at my disposal extend, and I may hope, if circumstances prove favourable, to complete, by degrees, the history of a more extensive series of Epidemics on the same plan as the "Black Death," and the "Dancing Mania."

Amid the accumulated materials which past ages afford, the powers and the life of one individual, even with the aid of previous study, are insufficient to complete a comprehensive history of Epidemics. The zealous activity of many must be exerted if we would speedily possess a work which is so much wanted in order that we may not encounter new epidemics with culpable ignorance of analogous phenomena. How often has it appeared on the breaking out of epidemics, as if the experience of so many centuries had been accumulated in vain. Men gazed at the phenomena with astonishment, and even before they had a just perception of their nature, pronounced their opinions, which, as they were divided into strongly opposed parties, they defended with all the ardour of zealots, wholly unconscious of the majesty of all-

governing nature. In the descriptive branches of natural history, a person would infallibly expose himself to the severest censure, who should attempt to describe some hitherto unknown natural production, whether animal or vegetable, if he were ignorant of the allied genera and species, and perhaps neither a botanist nor zoologist; yet an analogous ignorance of epidemics, in those who nevertheless discussed their nature, but too frequently occurred, and men were insensible to the justest reproof. Thus it has ever been, and for this reason we cannot apply to ourselves in this department the significant words of Bacon, that we are the ancients, and our forefathers the moderns, for we are equally remote with them from a scientific and comprehensive knowledge of epidemics. This might and ought to be otherwise, in an age which, in other respects, may, with justice, boast of a rich diversity of knowledge, and of a rapid progress in the natural sciences.

If in the form of an address to the physicians of Germany, I express the wish to see such a melancholy state of things remedied, the nature of the subject requires that, with the exception of the still prevailing Cholera, remarkable universal epidemics should be selected for investigation. They form the grand epochs, according to which those epidemics which are less extensive, but not, on that account, less worthy of observation, naturally range themselves. Far be it from me to recommend any fixed series, or even the plan and method to be pursued in treating the subject. It would, perhaps, be, on the whole, most advantageous, if my honoured Colleagues, who attend to this request, were to commence with those epidemics for which they possess complete materials, and that entirely according to their own plan, without adopting any model for imitation, for in this manner simple historical truth will be best elicited. Should it, however, be found impracticable to furnish historical descriptions of entire epidemics, a task often attended with difficulties, interesting fragments of all kinds, for which there are rich treasures in MSS. and scarce works in various places, would be no less welcome and useful towards the great object of preparing a collective history of epidemics.

Up to the present moment, it might almost seem that the most essential preliminaries are wanting for the accomplishment of such an undertaking. The study of medical history is everywhere at a low ebb;—in France and England scarcely a trace remains, to the most serious detriment of the whole domain of medicine; in Germany too, there are but few who suspect that inexhaustible stores of instructive truth are lying dormant within their power; they

may, perhaps, class them among theoretical doctrines, and commend the laborious investigation of them without being willing to recognise their spirit. None of the Universities of Germany, whose business it ought to be to provide, in this respect, for the prosperity of the inheritance committed to their charge, can boast a Professor's chair for the History of Medicine; nay, in many, it is so entirely unknown, that it is not even regarded as an object of secondary importance, so that it is to be apprehended that the fame of German erudition may, at least in medicine, gradually vanish, and our medical knowledge become, as practical indeed, but at the same time as assuming, as mechanical, and as defective, as that of France and England. Even those noble institutions, the Academies, in which the spirit of the eighteenth century still lingers, and whose more peculiar province it is to explore the rich pages of science, have not entered upon the history of Epidemics, and by their silence have encouraged the unfounded and injurious supposition, that this field is desolate and unfruitful.

All these obstacles are indeed great, but to determined and persevering exertion they are not insuperable; and, though we cannot conceal them from ourselves, we should not allow them to daunt our spirit. There is, in Germany, a sufficiency of intellectual power to overcome them; let this power be combined, and exert itself in active co-operation. Sooner or later a new road must be opened for Medical Science. Should the time not yet have arrived, I have at least endeavoured to discharge my duty, by attempting to point out its future direction.

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THE BLACK DEATH.

TRANSLATOR'S PREFACE.

In reading Dr. Hecker's account of the Black Death, which destroyed so large a portion of the human race in the fourteenth century, I was struck, not only with the peculiarity of the author's views, but also with the interesting nature of the facts which he has collected. Some of these have never before been made generally known, while others have passed out of mind, being effaced from our memories by subsequent events of a similar kind, which, though really of less magnitude and importance, have, in the perspective of time, appeared greater, because they have occurred nearer to our own days.

Dreadful as was the pestilence here described, and in few countries more so than in England, our modern historians only slightly allude to its visitation:—Hume deems a single paragraph sufficient to devote to its notice, and Henry and Rapin are equally brief.

It may not then be unacceptable to the medical, or even to the general reader, to receive an authentic and somewhat detailed account of one of the greatest natural calamities that ever afflicted the human race.

My chief motive, however, for translating this small work, and at this particular period, has been a desire that, in the study of the causes which have produced and propagated general pestilences, and of the moral effects by which they have been followed, the most enlarged views should be taken. The contagionist and the anti-contagionist may each find ample support for his belief in particular cases; but in the construction of a theory sufficiently comprehensive to explain throughout the origin and dissemination of universal disease, we shall not only perceive the insufficiency of either doctrine, taken singly, but after admitting the combined influence of both, shall even then find our views too narrow, and be compelled, in our endeavours to explain the facts, to acknowledge the existence of unknown powers, wholly

unconnected either with communication by contact or atmospheric contamination.

I by no means wish it to be understood, that I have adopted the author's views respecting astral and telluric influences, the former of which, at least, I had supposed to have been, with alchemy and magic, long since consigned to oblivion; much less am I prepared to accede to his notion, or rather an ancient notion derived from the East and revived by him, of an organic life in the system of the universe. We are constantly furnished with proofs, that that which affects life is not itself alive; and whether we look to the earth for exhalations, to the air for electrical phenomena, to the heavenly bodies for an influence over our planet, or to all these causes combined, for the formation of some unknown principle noxious to animal existence, still, if we found our reasoning on ascertained facts, we can perceive nothing throughout this vast field for physical research which is not evidently governed by the laws of inert matter—nothing which resembles the regular succession of birth, growth, decay, death, and regeneration, observable in organized beings. To assume, therefore, causes of whose existence we have no proof, in order to account for effects which, after all, they do not explain, is making no real advance in knowledge, and can scarcely be considered otherwise than an indirect method of confessing our ignorance.

Still, however, I regard the author's opinions, illustrated as they are by a series of interesting facts diligently collected from authentic sources, as, at least, worthy of examination before we reject them, and valuable, as furnishing extensive data on which to build new theories.

I have another, perhaps I may be allowed to say a better, motive for laying before my countrymen this narrative of the sufferings of past ages,—that by comparing them with those of our own time, we may be made the more sensible how lightly the chastening hand of Providence has fallen on the present generation, and how much reason, therefore, we have to feel grateful for the mercy shown us.

The publication has, with this view, been purposely somewhat delayed, in order that it might appear at a moment when it is to be presumed that men's thoughts will be especially directed to the approaching hour of public thanksgiving, and when a knowledge of that which they have escaped, as well as of that which they have suffered, may tend to heighten their devotional feelings on that solemn occasion.

When we learn that, in the fourteenth century, one quarter, at least, of the population of the old world was swept away in the short space of four years, and that some countries, England among the rest, lost more than double that proportion of their inhabitants in the course of a few months, we may well congratulate ourselves that our visitation has not been like theirs, and shall not justly merit ridicule, if we offer our humble thanks to the "Creator and Preserver of all mankind" for our deliverance.

Nor would it disgrace our feelings if, in expiation of the abuse and obloquy not long since so lavishly bestowed by the public on the medical profession, we should entertain some slight sense of gratitude towards those members of the community, who were engaged, at the risk of their lives and the sacrifice of their personal interests, in endeavouring to arrest the progress of the evil, and to mitigate the sufferings of their fellow men.

I have added, at the close of the Appendix, some extracts from a scarce little work in black letter, called "A Boke or Counseill against the Disease commonly called the Sweate or Sweatyng Sicknesse," published by Caius in 1552. This was written three years before his Latin treatise on the same subject, and is so quaint, and, at the same time, so illustrative of the opinions of his day, and even of those of the fourteenth century, on the causes of universal diseases, that the passages which I have quoted will not fail to afford some amusement as well as instruction. If I have been tempted to reprint more of this curious production than was necessary to my primary object, it has been from a belief that it would be generally acceptable to the reader to gather some particulars regarding the mode of living in the sixteenth century, and to observe the author's animadversions on the degeneracy and credulity of the age in which he lived. His advice on the choice of a medical attendant cannot be too strongly recommended, at least *by a physician ;* and his warning against quackery, particularly the quackery of *painters*, who "scorne (*quære* score?) you behind your backs with their medicines, so filthy that I am ashamed to name them," seems quite prophetic.

In conclusion, I beg to acknowledge the obligation which I owe to my friend Mr. H. E. Lloyd, whose intimate acquaintance with the German language and literature will, I hope, be received as a sufficient pledge that no very important errors remain in a translation which he has kindly revised.

London, 1833.

PREFACE.

We here find an important page of the history of the world laid open to our view. It treats of a convulsion of the human race, unequalled in violence and extent. It speaks of incredible disasters, of despair and unbridled demoniacal passions. It shows us the abyss of general licentiousness, in consequence of an universal pestilence, which extended from China to Iceland and Greenland.

The inducement to unveil this image of an age, long since gone by, is evident. A new pestilence has attained almost an equal extent, and though less formidable, has partly produced, partly indicated, similar phenomena. Its causes, and its diffusion over Asia and Europe, call on us to take a comprehensive view of it, because it leads to an insight into the organism of the world, in which the sum of organic life is subject to the great powers of Nature. Now, human knowledge is not yet sufficiently advanced, to discover the connexion between the processes which occur above, and those which occur below, the surface of the earth, or even fully to explore those laws of nature, an acquaintance with which would be required; far less to apply them to great phenomena, in which one spring sets a thousand others in motion.

On this side, therefore, such a point of view is not to be found, if we would not lose ourselves in the wilderness of conjectures, of which the world is already too full: but it may be found in the ample and productive field of historical research.

History—that mirror of human life in all its bearings, offers, even for general pestilences, an inexhaustible, though scarcely explored, mine of facts; here too it asserts its dignity, as the philosophy of reality delighting in truth.

It is conformable to its spirit to conceive general pestilences as events affecting the whole world—to explain their phenomena by the comparison of what is similar. Thus the facts speak for themselves, because they appear to have proceeded from those higher laws which govern the progression of the existence of mankind. A cosmical origin and convulsive excitement, productive of the

most important consequences among the nations subject to them, are the most striking features to which history points in all general pestilences. These, however, assume very different forms, as well in their attacks on the general organism, as in their diffusion; and in this respect a development from form to form, in the course of centuries, is manifest, so that the history of the world is divided into grand periods in which positively defined pestilences prevailed. As far as our chronicles extend, more or less certain information can be obtained respecting them.

But this part of medical history, which has such a manifold and powerful influence over the history of the world, is yet in its infancy. For the honour of that science which should everywhere guide the actions of mankind, we are induced to express a wish, that it may find room to flourish amidst the rank vegetation with which the field of German medical science is unhappily encumbered.

THE BLACK DEATH.

CHAPTER I.

GENERAL OBSERVATIONS.

That Omnipotence which has called the world with all its living creatures into one animated being, especially reveals himself in the desolation of great pestilences. The powers of creation come into violent collision; the sultry dryness of the atmosphere; the subterraneous thunders; the mist of overflowing waters, are the harbingers of destruction. Nature is not satisfied with the ordinary alternations of life and death, and the destroying angel waves over man and beast his flaming sword.

These revolutions are performed in vast cycles, which the spirit of man, limited, as it is, to a narrow circle of perception, is unable to explore. They are, however, greater terrestrial events than any of those which proceed from the discord, the distress, or the passions of nations. By annihilations they awaken new life; and when the tumult above and below the earth is past, nature is renovated, and the mind awakens from torpor and depression to the consciousness of an intellectual existence.

Were it in any degree within the power of human research to draw up, in a vivid and connected form, an historical sketch of such mighty events, after the manner of the historians of wars and battles, and the migrations of nations, we might then arrive at clear views with respect to the mental development of the human race, and the ways of Providence would be more plainly discernible. It would then be demonstrable, that the mind of nations is deeply affected by the destructive conflict of the powers of nature, and that great disasters lead to striking changes in general civilization. For all that exists in man, whether good or evil, is rendered conspicuous by the presence of great danger. His in-

most feelings are roused—the thought of self-preservation masters his spirit—self-denial is put to severe proof, and wherever darkness and barbarism prevail, there the affrighted mortal flies to the idols of his superstition, and all laws, human and divine, are criminally violated.

In conformity with a general law of nature, such a state of excitement brings about a change, beneficial or detrimental, according to circumstances, so that nations either attain a higher degree of moral worth, or sink deeper in ignorance and vice. All this, however, takes place upon a much grander scale than through the ordinary vicissitudes of war and peace, or the rise and fall of empires, because the powers of nature themselves produce plagues, and subjugate the human will, which, in the contentions of nations, alone predominates.

CHAPTER II.

THE DISEASE.

The most memorable example of what has been advanced, is afforded by a great pestilence of the fourteenth century, which desolated Asia, Europe, and Africa, and of which the people yet preserve the remembrance in gloomy traditions. It was an oriental plague, marked by inflammatory boils and tumours of the glands, such as break out in no other febrile disease. On account of these inflammatory boils, and from the black spots, indicatory of a putrid decomposition, which appeared upon the skin, it was called in Germany and in the northern kingdoms of Europe, *the Black Death*, and in Italy, la Mortalega Grande, *the Great Mortality*.[1]

Few testimonies are presented to us respecting its symptoms and its course, yet these are sufficient to throw light upon the form of the malady, and they are worthy of credence, from their coincidence with the signs of the same disease in modern times.

[1] La Mortalega Grande. *Matth. de Griffonibus. Muratori.* Script. rer. Italicar. T. XVIII. p. 167. D. They were called by others *Anguinalgia. Andr. Gratiol.* Discorso di Peste. Venet. 1576. 4to. Swedish: *Diger-döden. Loccenii* Histor. Suecan. L. III. p. 104.—Danish: *den sorte Dod. Pontan.* Rer. Danicar. Histor. L. VIII. p. 476.—Amstelod. 1631, fol. Icelandic: *Svatur Daudi. Saabye*, Tagebuch in Grönland. Introduction XVIII. *Mansa*, de Epidemiis maxime memorabilibus, quæ in Dania grassatæ sunt, &c. Part I. p. 12. Havniæ, 1831, 8.—In Westphalia the name of *de groete Doet* was prevalent. *Meibom.*

The imperial writer, Kantakusenos,[1] whose own son, Andronikus, died of this plague in Constantinople, notices great imposthumes[2] of the thighs and arms of those affected, which, when opened, afforded relief by the discharge of an offensive matter. Buboes, which are the infallible signs of the oriental plague, are thus plainly indicated, for he makes separate mention of smaller boils on the arms and in the face, as also in other parts of the body, and clearly distinguishes these from the blisters,[3] which are no less produced by plague in all its forms. In many cases, black spots[4] broke out all over the body, either single, or united and confluent.

These symptoms were not all found in every case. In many one alone was sufficient to cause death, while some patients recovered, contrary to expectation, though afflicted with all. Symptoms of cephalic affection were frequent; many patients became stupified and fell into a deep sleep, losing also their speech from palsy of the tongue; others remained sleepless and without rest. The fauces and tongue were black, and as if suffused with blood; no beverage would assuage their burning thirst, so that their sufferings continued without alleviation until terminated by death, which many in their despair accelerated with their own hands. Contagion was evident, for attendants caught the disease of their relations and friends, and many houses in the capital were bereft even of their last inhabitant. Thus far the ordinary circumstances only of the oriental plague occurred. Still deeper sufferings, however, were connected with this pestilence, such as have not been felt at other times; the organs of respiration were seized with a putrid inflammation; a violent pain in the chest attacked the patient; blood was expectorated, and the breath diffused a pestiferous odour.

In the West, the following were the prodominating symptoms on the eruption of this disease.[5] An ardent fever, accompanied by an evacuation of blood, proved fatal in the first three days. It appears that buboes and inflammatory boils did not at first come out at all, but that the disease, in the form of carbuncular (*anthrax-*

[1] *Joann. Cantacuzen.* Historiar. L. IV. c. 8. Ed. Paris, p. 730. 5. The ex-emperor has indeed copied some passages from Thucydides, as *Sprengel* justly observes (Appendix to the Geschichte der Medicin. Vol. I. H. I. S. 73), though this was most probably only for the sake of rounding a period. This is no detriment to his credibility, because his statements accord with the other accounts.

[2] Ἀποστάσεις μεγάλαι. [3] Μελαίναι φλυκτίδες. [4] ὥσπερ στίγματα μέλανα.

[5] *Guidon. de Cauliaco* Chirurgia. Tract 11. c. 5. p. 113. Ed. Lugdun. 1572.

artigen) affection of the lungs, effected the destruction of life before the other symptoms were developed.

Thus did the plague rage in Avignon for six or eight weeks, and the pestilential breath of the sick, who expectorated blood, caused a terrible contagion far and near; for even the vicinity of those who had fallen ill of plague was certain death;[1] so that parents abandoned their infected children, and all the ties of kindred were dissolved. After this period, buboes in the axilla and in the groin, and inflammatory boils all over the body, made their appearance; but it was not until seven months afterwards that some patients recovered with matured buboes, as in the ordinary milder form of plague.

Such is the report of the courageous Guy de Chauliac, who vindicated the honour of medicine, by bidding defiance to danger; boldly and constantly assisting the affected, and disdaining the excuse of his colleagues, who held the Arabian notion, that medical aid was unavailing, and that the contagion justified flight. He saw the plague twice in Avignon, first in the year 1348, from January to August, and then twelve years later, in the autumn, when it returned from Germany, and for nine months spread general distress and terror. The first time it raged chiefly among the poor, but in the year 1360, more among the higher classes. It now also destroyed a great many children, whom it had formerly spared, and but few women.

The like was seen in Egypt.[2] Here also inflammation of the lungs was predominant, and destroyed quickly and infallibly, with burning heat and expectoration of blood. Here too the breath of the sick spread a deadly contagion, and human aid was as vain as it was destructive to those who approached the infected.

Boccacio, who was an eye-witness of its incredible fatality in Florence, the seat of the revival of science, gives a more lively description of the attack of the disease than his non-medical contemporaries.[3]

It commenced here, not, as in the East, with bleeding at the nose, a sure sign of inevitable death; but there took place at the beginning, both in men and women, tumours in the groin and in

[1] Et fuit tantæ contagiositatis specialiter quæ fuit cum sputo sanguinis, quod non solum morando, sed etiam inspiciendo unus recipiebat ab alio: intantum quod gentes moriebantur sine servitoribus, et sepeliebantur sine sacerdotibus, pater non visitabat filium, nec filius patrem: charitas erat mortua, spes prostrata.

[2] *Deguignes*, Histoire générale des Huns, des Turcs, des Mogols, &c. Tom. IV. Paris, 1758. 4to. p. 226.

[3] Decameron. Giorn. I. Introd.

the axilla, varying in circumference up to the size of an apple or an egg, and called by the people pest-boils (gavoccioli). Then there appeared similar tumours indiscriminately over all parts of the body, and black or blue spots came out on the arms or thighs, or on other parts, either single and large, or small and thickly studded. These spots proved equally fatal with the pest-boils, which had been from the first regarded as a sure sign of death.[1] No power of medicine brought relief—almost all died within the first three days, some sooner, some later, after the appearance of these signs, and for the most part entirely without fever[2] or other symptoms. The plague spread itself with the greater fury, as it communicated from the sick to the healthy, like fire among dry and oily fuel, and even contact with the clothes and other articles which had been used by the infected seemed to induce the disease. As it advanced, not only men, but animals, fell sick and shortly expired, if they had touched things belonging to the diseased or dead. Thus Boccacio himself saw two hogs on the rags of a person who had died of plague, after staggering about for a short time, fall down dead, as if they had taken poison. In other places multitudes of dogs, cats, fowls, and other animals, fell victims to the contagion;[3] and it is to be presumed that other epizootes among animals likewise took place, although the ignorant writers of the fourteenth century are silent on this point.

In Germany there was a repetition in every respect of the same phenomena. The infallible signs of the oriental bubo-plague with its inevitable contagion were found there as everywhere else; but the mortality was not nearly so great as in the other parts of Europe.[4] The accounts do not all make mention of the spitting of blood, the diagnostic symptom of this fatal pestilence; we are not, however, thence to conclude that there was any considerable mitigation or modification of the disease, for we must not only take into account the defectiveness of the chronicles, but that isolated testimonies are often contradicted by many others. Thus, the chronicles of Strasburg, which only take notice of boils and glandular swellings in the axillæ and groins,[5] are opposed by another

[1] From this period black petechiæ have always been considered as fatal in the plague.

[2] A very usual circumstance in plague epidemics.

[3] *Auger. de Biterris*, Vitæ Romanor. pontificum, *Muratori* Scriptor. rer. Italic. Vol. III. Pt. II. p. 556.

[4] Contin. altera Chronici *Guillelmi de Nangis* in *d'Acher*, Spicilegium sive Collectio Veterum Scriptorum, &c. Ed. de la *Barre*, Tom. III. p. 110.

[5] "The people all died of boils and inflamed glands which appeared under the arms

account, according to which the mortal spitting of blood was met with in Germany;[1] but this again is rendered suspicious, as the narrator postpones the death of those who were thus affected, to the sixth, and (even the) eighth day, whereas no other author sanctions so long a course of the disease; and even in Strasburg, where a mitigation of the plague may, with most probability, be assumed, since in the year 1349 only 16,000 people were carried off, the generality expired by the third or fourth day.[2] In Austria, and especially in Vienna, the plague was fully as malignant as anywhere, so that the patients who had red spots and black boils, as well as those afflicted with tumid glands, died about the third day;[3] and lastly, very frequent sudden deaths occurred on the coasts of the North Sea and in Westphalia, without any further development of the malady.[4]

To France, this plague came in a northern direction from Avignon, and was there more destructive than in Germany, so that in many places not more than two in twenty of the inhabitants survived. Many were struck, as if by lightning, and died on the spot, and this more frequently among the young and strong than the old; patients with enlarged glands in the axillæ and groins scarcely survived two or three days; and no sooner did these fatal signs appear, than they bid adieu to the world, and sought consolation only in the absolution which Pope Clement VI. promised them in the hour of death.[5]

In England the malady appeared, as at Avignon, with spitting of blood, and with the same fatality, so that the sick who were afflicted either with this symptom or with vomiting of blood, died in some cases immediately, in others within twelve hours, or at the latest, in two days.[6] The inflammatory boils and buboes in the groins and axillæ were recognised at once as prognosticating a fatal issue, and those were past all hope of recovery in whom they arose in numbers all over the body. It was not till towards

and in the groins." *Jac. v. Königshoven*, the oldest Chronicle of Alsace and Strasburg, and indeed of all Germany. Strasburg, 1698. 4. cap. 5, § 86. p. 301.

[1] *Hainr. Rebdorff*, Annales, *Marq. Freher.* Germanicarum rerum Scriptores. Francof. 1624. fol. p. 439.

[2] *Königshoven*, in loc. cit.

[3] Anonym. Leobiens. Chron. L. VI. in *Hier. Pez*, Scriptor. rer. Austriac. Lips. 1721. fol. Tom. I. p. 970. The above-named appearances are here called, *rote sprinkel, swarcze erhubenn* und *druesz under den üchsen und ze den gemächten.*

[4] *Ubb. Emmiie* rer. Frisiacar. histor. L. XIV. p. 203. Lugd. Bat. 1616. fol.

[5] *Guillelmus de Nangis*, loc. cit.

[6] *Ant. Wood*, Historia et Antiquitates Universit. Oxoniens. Oxon. 1764. fol. L. 1. p. 172.

the close of the plague that they ventured to open, by incision, these hard and dry boils, when matter flowed from them in small quantity, and thus by compelling nature to a critical suppuration, many patients were saved. Every spot which the sick had touched, their breath, their clothes, spread the contagion; and, as in all other places, the attendants and friends who were either blind to their danger or heroically despised it, fell a sacrifice to their sympathy. Even the eyes of the patient were considered as sources of contagion,[1] which had the power of acting at a distance, whether on account of their unwonted lustre or the distortion which they always suffer in plague, or whether in conformity with an ancient notion, according to which the sight was considered as the bearer of a demoniacal enchantment. Flight from infected cities seldom availed the fearful, for the germ of the disease adhered to them, and they fell sick, remote from assistance, in the solitude of their country houses.

Thus did the plague spread over England with unexampled rapidity, after it had first broken out in the county of Dorset, whence it advanced through the counties of Devon and Somerset, to Bristol, and thence reached Gloucester, Oxford, and London. Probably few places escaped, perhaps not any; for the annals of contemporaries report that throughout the land only a tenth part of the inhabitants remained alive.[2]

From England the contagion was carried by a ship to Bergen, the capital of Norway, where the plague then broke out in its most frightful form, with vomiting of blood; and throughout the whole country, spared not more than a third of the inhabitants. The sailors found no refuge in their ships; and vessels were often seen driving about on the ocean and drifting on shore, whose crews had perished to the last man.[3]

In Poland the infected were attacked with spitting of blood, and died in a few days in such vast numbers, that, as it has been affirmed, scarcely a fourth of the inhabitants were left.[4]

[1] *Mezeray*, Histoire de France. Paris, 1685. fol. T. II. p. 418.

[2] *Barnes*, who has given a lively picture of the black plague, in England, taken from the Registers of the 14th century, describes the external symptoms in the following terms: knobs or swellings in the groin or under the armpits, called kernels, biles, blains, blisters, pimples, wheals, or plague-sores. The Hist. of Edw. III. Cambridge, 1688. fol. p. 432.

[3] *Torfæus*, Historia rerum Norvegicarum. Hafn. 1711. fol. L. ix. c. 8. p. 478. This author has followed *Pontanus* (Rerum Danicar. Historia. Amstelod. 1631. fol.), who has given only a general account of the plague in Denmark, and nothing respecting its symptoms.

[4] *Dlugoss*, vide Longini Histor. polonic. L. xii. Lips. 1711. fol. T. I. p. 1086.

Finally, in Russia the plague appeared two years later than in Southern Europe; yet here, again, with the same symptoms as elsewhere. Russian contemporaries have recorded that it began with rigor, heat, and darting pain in the shoulders and back; that it was accompanied by spitting of blood, and terminated fatally in two, or at most three, days. It is not till the year 1360, that we find buboes mentioned as occurring in the neck, in the axillæ, and in the groins, which are stated to have broken out when the spitting of blood had continued some time. According to the experience of Western Europe, however, it cannot be assumed that these symptoms did not appear at an earlier period.[1]

Thus much, from authentic sources, on the nature of the Black Death. The descriptions which have been communicated contain, with a few unimportant exceptions, all the symptoms of the oriental plague which have been observed in more modern times. No doubt can obtain on this point. The facts are placed clearly before our eyes. We must, however, bear in mind that this violent disease does not always appear in the same form, and that while the essence of the poison which it produces, and which is separated so abundantly from the body of the patient, remains unchanged, it is proteiform in its varieties, from the almost imperceptible vesicle, unaccompanied by fever, which exists for some time before it extends its poison inwardly, and then excites fever and buboes, to the fatal form in which carbuncular inflammations fall upon the most important viscera.

Such was the form which the plague assumed in the 14th century, for the accompanying chest affection which appeared in all the countries whereof we have received any account, cannot, on a comparison with similar and familiar symptoms, be considered as any other than the inflammation of the lungs of modern medicine,[2] a disease which at present only appears sporadically, and, owing to a putrid decomposition of the fluids, is probably combined with hemorrhages from the vessels of the lungs. Now, as every carbuncle, whether it be cutaneous or internal, generates in abundance the matter of contagion which has given rise to it, so, therefore, must the breath of the affected have been poisonous in this plague, and on this account its power of contagion wonder-

[1] *W. M. Richter*, Geschichte der Medicin in Russland. Moskwa, 1813, 8. p. 215. *Richter* has taken his information on the black plague in Russia, from authentic Russian MSS.

[2] Compare on this point, *Balling's* treatise "Zur Diagnostik der Lungenerweichung." Vol. XVI. ii. 3. p. 257 of litt. Annalen der ges. Heilkunde.

fully increased; wherefore the opinion appears incontrovertible, that owing to the accumulated numbers of the diseased, not only individual chambers and houses, but whole cities were infected, which, moreover, in the middle ages, were, with few exceptions, narrowly built, kept in a filthy state, and surrounded with stagnant ditches.[1] Flight was, in consequence, of no avail to the timid; for even though they had sedulously avoided all communication with the diseased and the suspected, yet their clothes were saturated with the pestiferous atmosphere, and every inspiration imparted to them the seeds of the destructive malady, which, in the greater number of cases, germinated with but too much fertility. Add to which, the usual propagation of the plague through clothes, beds, and a thousand other things to which the pestilential poison adheres,—a propagation, which, from want of caution, must have been infinitely multiplied; and since articles of this kind, removed from the access of air, not only retain the matter of contagion for an indefinite period, but also increases its activity and engender it like a living being, frightful ill-consequences followed for many years after the first fury of the pestilence was past.

The affection of the stomach, often mentioned in vague terms, and occasionally as a vomiting of blood, was doubtless only a subordinate symptom, even if it be admitted that actual hematemesis did occur. For the difficulty of distinguishing a flow of blood from the stomach, from a pulmonic expectoration of that fluid, is, to non-medical men, even in common cases, not inconsiderable. How much greater then must it have been in so terrible a disease, where assistants could not venture to approach the sick without exposing themselves to certain death? Only two medical descriptions of the malady have reached us, the one by the brave *Guy de Chauliac*, the other by *Raymond Chalin de Vinario*, a very experienced scholar, who was well versed in the learning of his time. The former takes notice only of fatal coughing of blood; the latter, besides this, notices epistaxis, hematuria and fluxes of blood from the bowels, as symptoms of such decided and speedy mortality, that those patients in whom they were observed, usually died on the same or the following day.[2]

[1] It is expressly ascertained with respect to Avignon and Paris, that uncleanliness of the streets increased the plague considerably. *Raim. Chalin de Vinario.*

[2] *De Peste* Libri tres, opera *Jacobi Dalechampii* in lucem editi. Lugduni, 1552. 16. p. 35. *Dalechamp* has only improved the language of this work, adding nothing to it but a preface in the form of two letters. *Raymond Chalin de Vinario* was contemporary

That a vomiting of blood may not, here and there, have taken place, perhaps have been even prevalent in many places, is, from a consideration of the nature of the disease, by no means to be denied; for every putrid decomposition of the fluids begets a tendency to hemorrhages of all kinds. Here, however, it is a question of historical certainty, which, after these doubts, is by no means established. Had not so speedy a death followed the expectoration of blood, we should certainly have received more detailed intelligence respecting other hemorrhages; but the malady had no time to extend its effects further over the extremities of the vessels. After its first fury, however, was spent, the pestilence passed into the usual febrile form of the oriental plague. Internal carbuncular inflammations no longer took place, and hemorrhages became phenomena, no more essential in this than they are in any other febrile disorders. Chalin, who observed not only the *great mortality* of 1348, and the plague of 1360, but also that of 1373 and 1382, speaks moreover of *affections of the throat*, and describes the *black spots* of plague patients more satisfactorily than any of his contemporaries. The former appeared but in few cases, and consisted in carbuncular inflammation of the gullet, with a difficulty of swallowing, even to suffocation, to which, in some instances, was added inflammation of the ceruminous glands of the ears, with tumours, producing great deformity. Such patients, as well as others, were affected with expectoration of blood; but they did not usually die before the sixth, and sometimes even so late as the fourteenth, day.[1] The same occurrence, it is well known, is not uncommon in other pestilences; as also blisters on the surface of the body, in different places, in the vicinity of which, tumid glands and inflammatory boils, surrounded by discoloured and black streaks, arose, and thus indicated the reception of the poison. These streaked spots were called, by an apt comparison, *the girdle*, and this appearance was justly considered extremely dangerous.[2]

with *Guy de Chauliac* at Avignon. He enjoyed a high reputation, and was in very affluent circumstances. He often makes mention of cardinals and high officers of the papal court, whom he had treated; and it is even probable, though not certain, that he was physician to Clement VI. (1342—1352), Innocent VI. (1352—1362), and Urban V. 1362—1370). He and *Guy de Chauliac* never mention each other.

[1] *Dalechamp*, p. 205—where, and at pp. 32—36, the plague-eruptions are mentioned in the usual indefinite terms: Exanthemata viridia, cærulea, nigra, rubra, lata, diffusa, velut signata punctis, &c.

[2] "Pestilentis morbi gravissimum symptoma est, quod zonam vulgo nuncupant. Ea sic fit: Pustulæ nonnunquam per febres pestilentes fuscæ, nigræ, lividæ existunt, in

CHAPTER III.

CAUSES.—SPREAD.

An inquiry into the causes of the Black Death will not be without important results in the study of the plagues which have visited the world, although it cannot advance beyond generalization without entering upon a field hitherto uncultivated, and, to this hour, entirely unknown. Mighty revolutions in the organism of the earth, of which we have credible information, had preceded it. From China to the Atlantic, the foundations of the earth were shaken,—throughout Asia and Europe the atmosphere was in commotion, and endangered, by its baneful influence, both vegetable and animal life.

The series of these great events began in the year 1333, fifteen years before the plague broke out in Europe: they first appeared in China. Here a parching drought, accompanied by famine, commenced in the tract of country watered by the rivers Kiang and Hoai. This was followed by such violent torrents of rain, in and about Kingsai, at that time the capital of the empire, that, according to tradition, more than 400,000 people perished in the floods. Finally the mountain Tsincheou fell in, and vast clefts were formed in the earth. In the succeeding year (1334), passing over fabulous traditions, the neighbourhood of Canton was visited by inundations; whilst in Tche, after an unexampled drought, a plague arose, which is said to have carried off about 5,000,000 of people. A few months afterwards an earthquake followed, at and near Kingsai; and subsequent to the falling in of the mountains of Ki-ming-chan, a lake was formed of more than a hundred leagues in circumference, where, again, thousands found their grave. In Houkouang and Ho-nan a drought prevailed for five months; and innumerable swarms of locusts de-

partibus corporis a glandularum emissariis sejunctis, ut in femore, tibia, capite, brachio, humeris, quarum fervore et caliditate succi corporis attracti, glandulas in trajectione replent, et attollunt, unde bubones fiunt atque carbunculi. *Ab iis tanquam solidu quidam nervus in partem vicinam distentam ac veluti convulsione rigentem producitur, puta brachium vel tibiam, nunc rubens, nunc fuscus, nunc obscurior, nunc virens, nunc iridis colore, duos vel quatuor digitos latus.* Hujus summo, qua desinit in emissarium, plerumque tuberculum pestilens visitur, altero vero extremo, qua in propinquum membrum porrigitur, carbunculus. Hoc scilicet malum vulgus zonam cinctumve nominat, periculosum minus, cum hic tuberculo, illic carbunculo terminatur, quam si tuberculum in capite solum emineat." p. 198.

stroyed the vegetation; while famine and pestilence, as usual, followed in their train. Connected accounts of the condition of Europe before this great catastrophe, are not to be expected from the writers of the fourteenth century. It is remarkable, however, that simultaneously with a drought and renewed floods in China, in 1336, many uncommon atmospheric phenomena, and in the winter frequent thunder storms, were observed in the north of France; and so early as the eventful year of 1333, an eruption of Etna took place.[1] According to the Chinese annals, about 4,000,000 of people perished by famine in the neighbourhood of Kiang in 1337: and deluges, swarms of locusts, and an earthquake which lasted six days, caused incredible devastation. In the same year, the first swarms of locusts appeared in Franconia, which were succeeded in the following year by myriads of these insects. In 1338, Kingsai was visited by an earthquake of ten days' duration; at the same time France suffered from a failure in the harvest; and thenceforth, till the year 1342, there was in China a constant succession of inundations, earthquakes, and famines. In the same year great floods occurred in the vicinity of the Rhine and in France, which could not be attributed to rain alone; for everywhere, even on the tops of mountains, springs were seen to burst forth, and dry tracts were laid under water in an inexplicable manner. In the following year, the mountain Hong-tchang, in China, fell in, and caused a destructive deluge; and in Pien-tcheou and Leang-tcheou, after three months' rain, there followed unheard-of inundations, which destroyed seven cities. In Egypt and Syria, violent earthquakes took place; and in China they became, from this time, more and more frequent; for they recurred, in 1344, in Ven-tcheou, where the sea overflowed in consequence; in 1345, in Ki-tcheou, and in both the following years in Canton, with subterraneous thunder. Meanwhile, floods and famine devastated various districts, until 1347, when the fury of the elements subsided in China.[2]

The signs of terrestrial commotions commenced in Europe in the year 1348, after the intervening districts of country in Asia had probably been visited in the same manner.

On the island of Cyprus, the plague from the East had already

[1] V. *Hoff.* Geschichte der natürlichen Veränderungen der Erdoberfläche, T. II. p. 264. Gotha, 1824. This eruption was not succeeded by any other in the same century, either of Etna or of Vesuvius.

[2] *Deguignes*, loc. cit. p. 226, from Chinese sources.

broken out; when an earthquake shook the foundations of the island, and was accompanied by so frightful a hurricane, that the inhabitants, who had slain their Mahometan slaves in order that they might not themselves be subjugated by them, fled in dismay, in all directions. The sea overflowed—the ships were dashed to pieces on the rocks, and few outlived the terrific event, whereby this fertile and blooming island was converted into a desert. Before the earthquake, a pestiferous wind spread so poisonous an odour, that many, being overpowered by it, fell down suddenly and expired in dreadful agonies.[1]

This phenomenon is one of the rarest that has ever been observed, for nothing is more constant than the composition of the air; and in no respect has nature been more careful in the preservation of organic life. Never have naturalists discovered in the atmosphere foreign elements, which, evident to the senses, and borne by the winds, spread from land to land, carrying disease over whole portions of the earth, as is recounted to have taken place in the year 1348. It is, therefore, the more to be regretted, that in this extraordinary period, which, owing to the low condition of science, was very deficient in accurate observers, so little that can be depended on respecting those uncommon occurrences in the air, should have been recorded. Yet, German accounts say expressly, that a thick, stinking mist advanced from the East, and spread itself over Italy;[2] and there could be no deception in so palpable a phenomenon.[3] The credibility of unadorned traditions, however little they may satisfy physical research, can scarcely be called in question when we consider the connexion of events; for just at this time earthquakes were more general than they had been within the range of history. In thousands of places chasms were formed, from whence arose

[1] *Deguignes*, loc. cit. p. 225, from Chinese sources.

[2] There were also many locusts which had been blown into the sea by a hurricane, and afterwards cast dead upon the shore, and produced a noxious exhalation; and *a dense and awful fog was seen in the heavens, rising in the East, and descending upon Italy*. Mansfeld Chronicle, in M. *Cyriac Spangenberg*, chap. 287, fol. 336. b. Eisleben, 1572. Compare *Staind.* Chron. (?) in *Schnurrer* ("Ingens vapor magnitudine horribili boreali movens, regionem, magno adspicientium terrore dilabitur"), and *Ad. von Lebenwaldt*, Land-Stadt-und Hausarzney-Buch. fol. p. 15. Nuremberg, 1695, who mentions a dark, thick mist which covered the earth. *Chalin* expresses himself on this subject in the following terms:—"Cœlum ingravescit, *aër impurus sentitur: nubes crassæ ac multæ luminibus cœli obstruunt, immundus ac ignavus tepor hominum emollit corpora, exoriens sol pallescit.*" p. 50.

[3] See Caius' account of the causes of the sweating sickness, in the Appendix.—*Translator.*

noxious vapours; and as at that time natural occurrences were transformed into miracles, it was reported, that a fiery meteor, which descended on the earth far in the East, had destroyed everything within a circumference of more than a hundred leagues, infecting the air far and wide.[1] The consequences of innumerable floods contributed to the same effect; vast river districts had been converted into swamps; foul vapours arose everywhere, increased by the odour of putrified locusts, which had never perhaps darkened the sun in thicker swarms,[2] and of countless corpses, which, even in the well-regulated countries of Europe, they knew not how to remove quickly enough out of the sight of the living. It is probable, therefore, that the atmosphere contained foreign, and sensibly perceptible, admixtures to a great extent, which, at least in the lower regions, could not be decomposed, or rendered ineffective by separation.

Now, if we go back to the symptoms of the disease, the ardent inflammation of the lungs points out that the organs of respiration yielded to the attack of an atmospheric poison—a poison, which, if we admit the independent origin of the Black Plague at any one place on the globe, which, under such extraordinary circumstances, it would be difficult to doubt, attacked the course of the circulation in as hostile a manner as that which produces inflammation of the spleen, and other animal contagions that cause swelling and inflammation of the lymphatic glands.

Pursuing the course of these grand revolutions further, we find notice of an unexampled earthquake, which, on the 25th of January, 1348, shook Greece, Italy, and the neighbouring countries. Naples, Rome, Pisa, Bologna, Padua, Venice, and many other cities suffered considerably: whole villages were swallowed up. Castles, houses, and churches were overthrown, and hundreds of people were buried beneath their ruins.[3] In Carinthia, thirty villages, together with all the churches, were demolished; more than a thousand corpses were drawn out of the rubbish; the city of Villach was so completely destroyed, that very few of its inhabitants were saved; and when the earth ceased to tremble, it was found that mountains had been moved from their positions,

[1] *Mezeray*, Histoire de France, Tom. II. 418. Paris, 1685. Compare *Oudegheerst's* Chroniques de Flandres. Antwerp, 1571, 4to. Chap. 175, f. 297.

[2] They spread in a direction from East to West, over most of the countries from which we have received intelligence. Anonym. Leobiens, Chron. loc. cit.

[3] *Giov. Villani* Istorie Fiorentine, L. XII. chap. 121, 122. in *Muratori*, T. XIII. pp. 1001, 1002. Compare *Barnes*, loc. cit. p. 430.

and that many hamlets were left in ruins.[1] It is recorded that, during this earthquake, the wine in the casks became turbid, a statement which may be considered as furnishing a proof, that changes causing a decomposition of the atmosphere had taken place; but if we had no other information from which the excitement of conflicting powers of nature during these commotions might be inferred, yet scientific observations in modern times have shown, that the relation of the atmosphere to the earth is changed by volcanic influences. Why, then, may we not, from this fact, draw retrospective inferences respecting those extraordinary phenomena?

Independently of this, however, we know that during this earthquake, the duration of which is stated by some to have been a week, and by others a fortnight, people experienced an unusual stupor and head-ache, and that many fainted away.[2]

These destructive earthquakes extended as far as the neighbourhood of Basle,[3] and recurred until the year 1360, throughout Germany, France, Silesia, Poland, England, and Denmark, and much further north.[4]

Great and extraordinary meteors appeared in many places, and were regarded with superstitious horror. A pillar of fire, which on the 20th of December, 1348, remained for an hour at sunrise over the pope's palace in Avignon;[5] a fireball, which in August of the same year was seen at sunset over Paris, and was distinguished from similar phenomena by its longer duration,[6] not to mention other instances mixed up with wonderful prophecies and omens, are recorded in the chronicles of that age.

The order of the seasons seemed to be inverted,—rains, floods, and failures in crops were so general, that few places were exempt from them; and though an historian of this century assures us that there was an abundance in the granaries and storehouses,[7] all his contemporaries, with one voice, contradict him. The consequences of failure in the crops were soon felt, especially in Italy

[1] *J. Vitoduran.* Chronicon, in *Füssli. Thesaurus* Histor. Helvet. Tigur. 1735. fol. p. 84.

[2] *Albert. Argentiniens.* Chronic. in *Urstis.* Scriptor. rer. Germanic. Francof. 1585. fol. P. II. p. 147. Compare *Chalin*, loc. cit.

[3] *Petrarch.* Opera. Basil. 1554. fol. p. 210. *Barnes*, loc. cit. p. 431.

[4] "Un tremblement de terre universel, mesme en France et aux pays septentrionaux, renversoit les villes toutes entières, déracinoit les arbres et les montagnes, et remplissoit les campagnes d'abysmes si profondes, qu'il semblait que l'enfer eût voulu engloutir le genre humain." *Mezeray*, loc. cit. p. 418. *Barnes*, p. 431.

[5] *Villani*, loc. cit. c. 119. p. 1000.

[6] *Guillelm. de Nangis*, Cont. alt. Chron. loc. cit. p. 109.

[7] Ibid. p. 110.

and the surrounding countries, where, in this year, a rain which continued for four months had destroyed the seed. In the larger cities, they were compelled, in the spring of 1347, to have recourse to a distribution of bread among the poor, particularly at Florence, where they erected large bake-houses, from which, in April, ninety-four thousand loaves of bread, each of twelve ounces in weight, were daily dispensed.[1] It is plain, however, that humanity could only partially mitigate the general distress, not altogether obviate it.

Diseases, the invariable consequence of famine, broke out in the country, as well as in cities; children died of hunger in their mothers' arms,—want, misery, and despair, were general throughout Christendom.[2]

Such are the events which took place before the eruption of the Black Plague in Europe. Contemporaries have explained them after their own manner, and have thus, like their posterity, under similar circumstances, given a proof, that mortals possess neither senses nor intellectual powers sufficiently acute to comprehend the phenomena produced by the earth's organism, much less scientifically to understand their effects. Superstition, selfishness in a thousand forms, the presumption of the schools, laid hold of unconnected facts. They vainly thought to comprehend the whole in the individual, and perceived not the universal spirit which, in intimate union with the mighty powers of nature, animates the movements of all existence, and permits not any phenomenon to originate from isolated causes. To attempt, five centuries after that age of desolation, to point out the causes of a cosmical commotion, which has never recurred to an equal extent,—to indicate scientifically the influences which called forth so terrific a poison in the bodies of men and animals, exceeds the limits of human understanding. If we are even now unable, with all the varied resources of an extended knowledge of nature, to define that condition of the atmosphere by which pestilences are generated, still less can we pretend to reason retrospectively from the nineteenth to the fourteenth century; but if we take a general view of the occurrences, that century will give us copious information, and, as applicable to all succeeding times, of high importance.

[1] *Villani*, loc. cit. c. 72. p. 954.

[2] Anonym. Istorie Pistolesi, in *Muratori*, T. XI. p. 524. "Ne gli anni di Chr. 1346 et 1347, fu grandissima carestia in tutta la Christianità, in tanto, che molta gente moria di fame, e fu grande mortalità in ogni paese del mondo."

In the progress of connected natural phenomena, from East to West, that great law of nature is plainly revealed which has so often and evidently manifested itself in the earth's organism, as well as in the state of nations dependent upon it. In the inmost depths of the globe, that impulse was given in the year 1333, which in uninterrupted succession for six-and-twenty years shook the surface of the earth, even to the western shores of Europe. From the very beginning the air partook of the terrestrial concussion, atmospherical waters overflowed the land, or its plants and animals perished under the scorching heat. The insect tribe was wonderfully called into life, as if animated beings were destined to complete the destruction which astral and telluric powers had begun. Thus did this dreadful work of nature advance from year to year; it was a progressive infection of the Zones, which exerted a powerful influence both above and beneath the surface of the earth; and after having been perceptible in slighter indications, at the commencement of the terrestrial commotions in China, convulsed the whole earth.

The nature of the first plague in China is unknown. We have no certain intelligence of the disease, until it entered the western countries of Asia. Here it showed itself as the oriental plague with inflammation of the lungs; in which form it probably also may have begun in China, that is to say, as a malady which spreads, more than any other, by contagion—a contagion, that, in ordinary pestilences, requires immediate contact, and only under unfavourable circumstances of rare occurrence is communicated by the mere approach to the sick. The share which this cause had in the spreading of the plague over the whole earth, was certainly very great: and the opinion that the Black Death might have been excluded from Western Europe, by good regulations, similar to those which are now in use, would have all the support of modern experience, provided it could be proved that this plague had been actually imported from the East; or that the oriental plague in general, whenever it appears in Europe, has its origin in Asia or Egypt. Such a proof, however, can by no means be produced so as to enforce conviction; for it would involve the impossible assumption, either that there is no essential difference between the degree of civilization of the European nations, in the most ancient and in modern times, or that detrimental circumstances, which have yielded only to the civilization of human society and the regular cultivation of countries, could not formerly keep up the glandular plague.

The plague was, however, known in Europe before nations were united by the bonds of commerce and social intercourse;[1] hence there is ground for supposing that it sprung up spontaneously, in consequence of the rude manner of living and the uncultivated state of the earth; influences which peculiarly favour the origin of severe diseases. Now we need not go back to the earlier centuries, for the 14th itself, before it had half expired, was visited by five or six pestilences.[2]

If, therefore, we consider the peculiar property of the plague, that, in countries which it has once visited, it remains for a long time in a milder form, and that the epidemic influences of 1342, when it had appeared for the last time, were particularly favourable to its unperceived continuance, till 1348, we come to the notion, that in this eventful year also, the germs of plague existed in Southern Europe, which might be vivified by atmospherical deteriorations; and that thus, at least in part, the Black Plague may have originated in Europe itself. The corruption of the atmosphere came from the East; but the disease itself came not upon the wings of the wind, but was only excited and increased by the atmosphere where it had previously existed.

This source of the Black Plague was not, however, the only one; for, far more powerful than the excitement of the latent elements of the plague by atmospheric influences, was the effect of the contagion communicated from one people to another, on the great roads, and in the harbours of the Mediterranean. From China, the route of the caravans lay to the north of the Caspian Sea, through Central Asia, to Tauris. Here ships were ready to take the produce of the East to Constantinople, the capital of commerce, and the medium of connexion between Asia, Europe, and Africa.[3] Other caravans went from India to Asia Minor, and touched at the cities south of the Caspian Sea, and lastly from Bagdad, through Arabia to Egypt; also the maritime communication on the Red Sea, from India to Arabia and Egypt, was not inconsiderable. In all these directions contagion made its

[1] According to *Papon*, its origin is quite lost in the obscurity of remote ages; and even before the Christian Era, we are able to trace many references to former pestilences. De la peste, ou époques mémorables de ce fléau, et les moyens de s'en préserver. T. II. Paris, An VIII. de la rép. 8.

[2] 1301, in the South of France; 1311, in Italy; 1316, in Italy, Burgundy, and Northern Europe; 1335, the locust year, in the middle of Europe; 1340, in Upper Italy; 1342, in France; and 1347, in Marseilles and most of the larger islands of the Mediterranean. Ibid. T. II. p. 273.

[3] Compare *Deguignes*, loc. cit. p. 288.

way; and doubtless, Constantinople and the harbours of Asia Minor, are to be regarded as the foci of infection; whence it radiated to the most distant seaports and islands.

To Constantinople, the plague had been brought from the northern coast of the Black Sea,[1] after it had depopulated the countries between those routes of commerce; and appeared as early as 1347, in Cyprus, Sicily, Marseilles, and some of the seaports of Italy. The remaining islands of the Mediterranean, particularly Sardinia, Corsica, and Majorca, were visited in succession. Foci of contagion existed also in full activity along the whole southern coast of Europe; when, in January 1348, the plague appeared in Avignon,[2] and in other cities in the south of France and north of Italy, as well as in Spain.

The precise days of its eruption in the individual towns, are no longer to be ascertained; but it was not simultaneous; for in Florence, the disease appeared in the beginning of April;[3] in Cesena, the 1st of June;[4] and place after place was attacked throughout the whole year; so that the plague, after it had passed through the whole of France and Germany, where, however, it did not make its ravages until the following year, did not break out till August, in England; where it advanced so gradually, that a period of three months elapsed before it reached London.[5] The northern kingdoms were attacked by it in 1349. Sweden, indeed, not until November of that year: almost two years after its eruption in Avignon.[6] Poland received the plague in 1349, probably from Germany,[7] if not from the northern countries; but in Russia, it did not make its appearance until 1351, more than three years after it had broken out in Constantinople. Instead of advancing in a north-westerly direction from Tauris and from the Caspian Sea, it had thus made the great circuit of the Black Sea, by way of Constantinople, Southern and Central Europe, England, the northern kingdoms and Poland, before it reached the Russian territories; a phenomenon which has not again occurred with respect to more recent pestilences originating in Asia.

[1] According to the general Byzantine designation, "from the country of the hyperborean Scythians." *Kantakuzen*, loc. cit.

[2] *Guid. Gauliac*, loc. cit.

[3] *Matt. Villani*, Istorie, in *Muratori*, T. XIV. p. 14.

[4] Annal. Cæsenat, *Ibid.* p. 1179.

[5] *Barnes*, loc. cit.

[6] *Olof Dalin's* Svea-Rikes Historie, III. vol. Stockholm, 1747—61, 4. Vol. II. C. 12, p. 496.

[7] *Dlugoss*, Histor. Polon. L. IX. p. 1086, T. I. Lips. 1711, fol.

Whether any difference existed between the indigenous plague, excited by the influence of the atmosphere, and that which was imported by contagion, can no longer be ascertained from facts; for the contemporaries, who in general were not competent to make accurate researches of this kind, have left no data on the subject. A milder and a more malignant form certainly existed, and the former was not always derived from the latter, as is to be supposed from this circumstance—that the spitting of blood, the infallible diagnostic of the latter, on the first breaking out of the plague, is not similarly mentioned in all the reports; and it is therefore probable, that the milder form belonged to the native plague,—the more malignant, to that introduced by contagion. Contagion was, however, in itself, only one of many causes which gave rise to the Black Plague.

This disease was a consequence of violent commotions in the earth's organism—if any disease of cosmical origin can be so considered. One spring set a thousand others in motion for the annihilation of living beings, transient or permanent, of mediate or immediate effect. The most powerful of all was contagion; for in the most distant countries, which had scarcely yet heard the echo of the first concussion, the people fell a sacrifice to organic poison,—the untimely offspring of vital energies thrown into violent commotion.

CHAPTER IV.

MORTALITY.

We have no certain measure by which to estimate the ravages of the Black Plague, if numerical statements were wanted, as in modern times. Let us go back for a moment to the 14th century. The people were yet but little civilized. The church had indeed subdued them; but they all suffered from the ill consequences of their original rudeness. The dominion of the law was not yet confirmed. Sovereigns had everywhere to combat powerful enemies to internal tranquillity and security. The cities were fortresses for their own defence. Marauders encamped on the roads.—The husbandman was a feodal slave, without possessions of his own.—Rudeness was general.—Humanity, as yet unknown to the people.—Witches and heretics were burned alive.—Gentle rulers were

contemned as weak ;—wild passions, severity, and cruelty, everywhere predominated.—Human life was little regarded.—Governments concerned not themselves about the numbers of their subjects, for whose welfare it was incumbent on them to provide. Thus, the first requisite for estimating the loss of human life, namely, a knowledge of the amount of the population, is altogether wanting ; and, moreover, the traditional statements of the amount of this loss are so vague, that from this source likewise there is only room for probable conjecture.

Kairo lost daily, when the plague was raging with its greatest violence, from 10 to 15,000 ; being as many as, in modern times, great plagues have carried off during their whole course. In China, more than thirteen millions are said to have died ; and this is in correspondence with the certainly exaggerated accounts from the rest of Asia. India was depopulated. Tartary, the Tartar kingdom of Kaptschak, Mesopotamia, Syria, Armenia, were covered with dead bodies—the Kurds fled in vain to the mountains. In Caramania and Cæsarea, none were left alive. On the roads,—in the camps,—in the caravansaries,—unburied bodies alone were seen ; and a few cities only (Arabian historians name Maara el nooman, Schisur, and Harem) remained, in an unaccountable manner, free. In Aleppo, 500 died daily ; 22,000 people, and most of the animals, were carried off in Gaza within six weeks. Cyprus lost almost all its inhabitants ;[1] and ships without crews were often seen in the Mediterranean, as afterwards in the North Sea, driving about, and spreading the plague wherever they went on shore.[2] It was reported to Pope Clement, at Avignon, that throughout the East, probably with the exception of China, 23,840,000 people had fallen victims to the plague.[3] Considering the occurrences of the 14th and 15th centuries, we might, on first view, suspect the accuracy of this statement. How (it might be asked) could such great wars have been carried on—such powerful efforts have been made ; how could the Greek empire, only a hundred years later, have been overthrown, if the people really had been so utterly destroyed?

This account is nevertheless rendered credible by the ascertained fact, that the palaces of princes are less accessible to contagious diseases than the dwellings of the multitude ; and that in places of importance, the influx from those districts which have suffered least soon repairs even the heaviest losses. We must remember,

[1] *Deguignes*, loc. cit. p. 223, f. [2] *Matt. Villani*, Istoria, loc. cit. p. 13.
[3] *Knighton*, in *Barnes*, loc. cit. p. 434.

also, that we do not gather much from mere numbers without an intimate knowledge of the state of society. We will, therefore, confine ourselves to exhibiting some of the more credible accounts relative to European cities.

In Florence there died of the Black Plague	60,000 [1]
In Venice	100,000 [2]
In Marseilles, in one month . .	16,000 [3]
In Siena	70,000 [4]
In Paris	50,000 [5]
In St. Denys	14,000 [6]
In Avignon	60,000 [7]
In Strasburg	16,000 [8]
In Lübeck	9,000 [9]
In Basle	14,000
In Erfurt, at least	16,000
In Weimar	5,000 [10]
In Limburg	2,500 [11]

[1] *Jno. Trithem*, Annal. Hirsaugiens. (Monast. St. Gall. Hirsaug. 1690. fol.) T. II. p. 296. According to *Boccacio*, loc. cit. 100,000; according to *Matt. Villani*, loc. cit. p. 14, three out of five.

[2] *Odoric. Raynald.* Annal. ecclesiastic. Colon. Agripp. 1691. fol. Vol. XVI. p. 280.

[3] *Vitoduran.* Chronic. in *Füssli*, loc. cit.

[4] *Tromby*, Storia de *S. Brunone* e dell' ordine Cartusiano. Vol. VI. L. VIII. p. 235. Napol. 1777. fol.

[5] *Barnes*, p. 435. [6] Ibid.

[7] *Baluz.* Vitæ Papar. Avenionens. Paris, 1693—4. Vol. I. p. 316. According to *Rebdorf* in *Freher.* loc. cit. at the worst period, 500 daily.

[8] *Königshoven*, loc. cit.

[9] According to *Reimar Kork*, from Easter to Michaelmas 1350, 80 to 90,000; among whom were eleven members of the senate, and Bishop John IV. Vid. *John Rud. Becker*, Circumstantial History of the Imper. and free city of Lübeck. Lübeck, 1782, 84, 1805. 3 Vols. 4. Vol. I. p. 269. 71. Although Lübeck was then in its most flourishing state, yet this account, which agrees with that of *Paul Lange*, is certainly exaggerated. (Chronic. Citizense, in *I. Pistorius*, Rerum Germanic. Scriptores aliquot insignes, cur. *Struve*. Ratisb. 1626. fol. p. 1214.) We have, therefore, chosen the lower estimate of an anonym. writer. Chronic. Sclavic. by *Erpold Lindenbrog.* Scriptores rerum Germanic. Septentrional. vicinorumque populor. diversi, Francof. 1630. fol. p. 225, and *Spangenberg.* loc. cit., with whom again the assurance of the two authors, that on the 10th August, 1350, 15 or 1700 (according to *Becker* 2500) persons had died, does not coincide. Compare Chronik des Franciskaner Lesemeisters *Detmar*, nach der Urschrift und mit Ergänzungen aus anderen Chroniken herausgeg. published by F. H. *Grautoff.* Hamburg, 1829, 30. 8. P. I. p. 269. App. 471.

[10] *Förstemann*, Versuch einer Geschichte der christlichen Geisslergesellschaften, in *Stäudlin's* und *Tzschirner's*, Archiv für alte und neue Kirchengeschichte, Vol. III. 1817.

[11] Limburg Chronicle, pub. by *C. D. Vogel.* Marburg, 1828. 8vo. p. 14.

In London, at least	100,000 [1]
In Norwich	51,100 [2]
To which may be added—	
Franciscan Friars in Germany .	124,434 [3]
Minorites in Italy	30,000 [4]

This short catalogue might, by a laborious and uncertain calculation, deduced from other sources, be easily further multiplied, but would still fail to give a true picture of the depopulation which took place. Lübeck, at that time the Venice of the North, which could no longer contain the multitudes that flocked to it, was thrown into such consternation on the eruption of the plague, that the citizens destroyed themselves as if in frenzy.

Merchants whose earnings and possessions were unbounded, coldly and willingly renounced their earthly goods. They carried their treasures to monasteries and churches, and laid them at the foot of the altar; but gold had no charms for the monks, for it brought them death. They shut their gates; yet, still it was cast to them over the convent walls. People would brook no impediment to the last pious work to which they were driven by despair. When the plague ceased, men thought they were still wandering among the dead, so appalling was the livid aspect of the survivors, in consequence of the anxiety they had undergone, and the unavoidable infection of the air.[5] Many other cities probably presented a similar appearance; and it is ascertained that a great number of small country towns and villages, which have been estimated, and not too highly, at 200,000,[6] were bereft of all their inhabitants.

In many places in France not more than two out of twenty of the inhabitants were left alive,[7] and the capital felt the fury of the plague, alike in the palace and the cot.

Two queens,[8] one bishop,[9] and great numbers of other distinguished persons, fell a sacrifice to it, and more than 500 a day died in the Hôtel-Dieu, under the faithful care of the sisters of charity, whose disinterested courage, in this age of horror, displayed the

[1] *Barnes*, loc. cit. [2] Ibid.

[3] *Spangenberg*. fol. 339. a. Grawsam Sterben vieler faulen Troppfen. Many lazy monks died a cruel death.

[4] *Vitoduran*, loc. cit. [5] *Becker*, loc. cit.

[6] *Hainr. Rebdorf*. p. 630. [7] *Guillelm. de Nang*. loc. cit.

[8] *Johanna*, queen of Navarre, daughter of *Louis X.*, and *Johanna* of Burgundy, wife of King *Philip* de Valois.

[9] *Fulco de Chanac*.

most beautiful traits of human virtue. For although they lost their lives, evidently from contagion, and their numbers were several times renewed, there was still no want of fresh candidates, who, strangers to the unchristian fear of death, piously devoted themselves to their holy calling.

The church-yards were soon unable to contain the dead,[1] and many houses, left without inhabitants, fell to ruins.

In Avignon, the pope found it necessary to consecrate the Rhone, that bodies might be thrown into the river without delay, as the church-yards would no longer hold them;[2] so likewise, in all populous cities, extraordinary measures were adopted, in order speedily to dispose of the dead. In Vienna, where for some time 1200 inhabitants died daily,[3] the interment of corpses in the church-yards and within the churches was forthwith prohibited; and the dead were then arranged in layers, by thousands, in six large pits outside the city,[4] as had already been done in Cairo and Paris. Yet, still many were secretly buried; for at all times the people are attached to the consecrated cemeteries of their dead, and will not renounce the customary mode of interment.

In many places, it was rumoured that plague patients were buried alive,[5] as may sometimes happen through senseless alarm and indecent haste; and thus the horror of the distressed people was everywhere increased. In Erfurt, after the church-yards were filled, 12,000 corpses were thrown into eleven great pits; and the like might, more or less exactly, be stated with respect to all the larger cities.[6] Funeral ceremonies, the last consolation of the survivors, were everywhere impracticable.

In all Germany, according to a probable calculation, there seem to have died only 1,244,434[7] inhabitants; this country,

[1] *Mich. Felibien*, Histoire de la ville de Paris, Liv. XII. Vol. II. p. 601, Paris, 1725. fol. Comp. *Guillelm. de Nangis.* loc. cit. and *Daniel* Histoire de France, Tom. II. p. 484. Amsterd. 1720. 4to.

[2] *Torfæus*, loc. cit.

[3] According to another account, 960. Chronic. Salisburg, in *Pez.* loc. cit. T. I. p. 412.

[4] According to an anonymous Chronicler, each of these pits is said to have contained 40,000; this, however, we are to understand as only in round numbers. Anonym. Leobiens, in *Pez.* p. 970. According to this writer, above seventy persons died in some houses, and many were entirely deserted, and at St. Stephen's alone, fifty-four ecclesiastics were cut off.

[5] *Auger. de Biterris* in *Muratori.* Vol. III. P. II. p. 556. The same is said of Paderborn, by *Gobelin Person*, in *Henr. Meibom.* Rer. Germanic. Script. T. I. p. 286. Helmstadt, 1688. fol.

[6] *Spangenberg.* loc. cit. chap. 287. fol. 337. b.

[7] *Barnes*, 435.

however, was more spared than others; Italy, on the contrary, was most severely visited. It is said to have lost half its inhabitants;[1] and this account is rendered credible from the immense losses of individual cities and provinces: for in Sardinia and Corsica, according to the account of the distinguished Florentine, John Villani, who was himself carried off by the Black Plague,[2] scarcely a third part of the population remained alive; and it is related of the Venetians, that they engaged ships at a high rate to retreat to the islands; so that after the plague had carried off three fourths of her inhabitants, that proud city was left forlorn and desolate.[3] In Padua, after the cessation of the plague, two thirds of the inhabitants were wanting; and in Florence it was prohibited to publish the numbers of the dead, and to toll the bells at their funerals, in order that the living might not abandon themselves to despair.[4]

We have more exact accounts of England; most of the great cities suffered incredible losses; above all, Yarmouth, in which, 7052 died: Bristol, Oxford, Norwich, Leicester, York, and London, where, in one burial-ground alone, there were interred upwards of 50,000 corpses, arranged in layers, in large pits.[5] It is said, that in the whole country, scarcely a tenth part remained alive;[6] but this estimate is evidently too high. Smaller losses were sufficient to cause those convulsions, whose consequences were felt for some centuries, in a false impulse given to civil life, and whose indirect influence, unknown to the English, has, perhaps, extended even to modern times.

Morals were deteriorated everywhere, and the service of God was, in a great measure, laid aside; for, in many places, the churches were deserted, being bereft of their priests. The instruction of the people was impeded;[7] covetousness became general; and when tranquillity was restored, the great increase of lawyers was astonishing, to whom the endless disputes regarding inheritances offered a rich harvest. The want of priests too, through-

[1] *Trithem.* Annal. Hirsaug. loc. cit. [2] Loc. cit. L. XII. c. 99. p. 977.

[3] Chronic. Claustro-Neoburg. in *Pez.* Vol. I. p. 490. Comp. *Barnes*, p. 435. *Raynald* Histor. ecclesiastic, loc. cit. According to this account, a runaway Venetian is said to have brought the plague to Padua.

[4] *Giov. Villani*, L. XII. c. 83. p. 964.

[5] *Barnes*, p. 436. [6] *Wood*, loc. cit.

[7] *Wood* says, that before the plague, there were 13,000 students at Oxford; a number which may, in some degree, enable us to form an estimate of the state of education in England at that time, if we consider that the universities were, in the middle ages, frequented by younger students, who in modern times do not quit school till their 18th year.

out the country, operated very detrimentally upon the people, (the lower classes being most exposed to the ravages of the plague, whilst the houses of the nobility were, in proportion, much more spared,) and it was no compensation that whole bands of ignorant laymen, who had lost their wives during the pestilence, crowded into the monastic orders, that they might participate in the respectability of the priesthood, and in the rich heritages which fell into the church from all quarters. The sittings of Parliament, of the King's Bench, and of most of the other courts, were suspended as long as the malady raged. The laws of peace availed not during the dominion of death. Pope Clement took advantage of this state of disorder to adjust the bloody quarrel between Edward III. and Philip VI.; yet he only succeeded during the period that the plague commanded peace. Philip's death (1350) annulled all treaties; and it is related, that Edward, with other troops indeed, but with the same leaders and knights, again took the field. Ireland was much less heavily visited than England. The disease seems to have scarcely reached the mountainous districts of that kingdom; and Scotland too would, perhaps, have remained free, had not the Scots availed themselves of the discomfiture of the English, to make an irruption into their territory, which terminated in the destruction of their army, by the plague and by the sword, and the extension of the pestilence, through those who escaped, over the whole country.

At the commencement, there was in England a super-abundance of all the necessaries of life; but the plague, which seemed then to be the sole disease, was soon accompanied by a fatal murrain among the cattle. Wandering about without herdsmen, they fell by thousands; and, as has likewise been observed in Africa, the birds and beasts of prey are said not to have touched them. Of what nature this murrain may have been, can no more be determined, than whether it originated from communication with the plague patients, or from other causes; but thus much is certain, that it did not break out until after the commencement of the Black Death. In consequence of this murrain, and the impossibility of removing the corn from the fields, there was everywhere a great rise in the price of food, which to many was inexplicable, because the harvest had been plentiful; by others it was attributed to the wicked designs of the labourers and dealers; but it really had its foundation in the actual deficiency arising from circumstances by which individual classes at all times endeavour to profit. For a whole year, until it terminated in August, 1349, the Black Plague

prevailed in this beautiful island, and everywhere poisoned the springs of comfort and prosperity.[1]

In other countries, it generally lasted only half a year, but returned frequently in individual places; on which account, some, without sufficient proof, assigned to it a period of seven years.[2]

Spain was uninterruptedly ravaged by the Black Plague till after the year 1350, to which the frequent internal feuds and the wars with the Moors not a little contributed. Alphonso XI., whose passion for war carried him too far, died of it at the siege of Gibraltar, on the 26th of March, 1350. He was the only king in Europe who fell a sacrifice to it; but even before this period, innumerable families had been thrown into affliction.[3] The mortality seems otherwise to have been smaller in Spain than in Italy, and about as considerable as in France.

The whole period during which the Black Plague raged with destructive violence in Europe, was, with the exception of Russia, from the year 1347 to 1350. The plagues, which in the sequel often returned until the year 1383,[4] we do not consider as belonging to "the Great Mortality." They were rather common pestilences, without inflammation of the lungs, such as in former times, and in the following centuries, were excited by the matter of contagion everywhere existing, and which, on every favourable occasion, gained ground anew, as is usually the case with this frightful disease.

The concourse of large bodies of people was especially dangerous; and thus, the premature celebration of the Jubilee, to which Clement VI. cited the faithful to Rome, (1350,) during the great epidemic, caused a new eruption of the plague, from which it is said that scarcely one in a hundred of the pilgrims escaped.[5]

Italy was, in consequence, depopulated anew; and those who returned spread poison and corruption of morals in all directions.[6] It is, therefore, the less apparent, how that pope, who was in general so wise and considerate, and who knew how to pursue the path of reason and humanity, under the most difficult

[1] *Barnes* and *Wood*, loc. cit. [2] *Gobelin. Person.* in *Meibom.* loc. cit.

[3] *Juan de Mariana.* Historia General de España, illustrated by Don *José Sabau y Blanco.* Tom. IX. Madrid, 1819. 8vo. Libro XVI. p. 225. Don *Diego Ortiz de Zúñiga*, Annales ecclesiasticos y seculares de Sevilla. Madrid, 1795. 4to. T. II. p. 121. Don *Juan de Ferreras*, Historia de España. Madrid, 1721. T. VII. p. 353.

[4] *Gobelin. Person.* loc. cit. Comp. *Chalin*, p. 53.

[5] *Guillelm. de Nangis*, loc. cit.

[6] *Spangenberg.* fol. 337. b. Limburg. Chronic. p. 20. "Und die auch von Rom kamen, wurden eines Theils böser als sie vor gewesen waren."

circumstances, should have been led to adopt a measure so injurious; since he himself was so convinced of the salutary effect of seclusion, that during the plague in Avignon he kept up constant fires, and suffered no one to approach him;[1] and, in other respects, gave such orders as averted, or alleviated, much misery.

The changes which occurred about this period in the north of Europe are sufficiently memorable to claim a few moments' attention. In Sweden two princes died—Håken and Knut, half-brothers of King Magnus; and in Westgothland alone, 466 priests.[2] The inhabitants of Iceland and Greenland found in the coldness of their inhospitable climate no protection against the southern enemy who had penetrated to them from happier countries. The plague caused great havoc among them. Nature made no allowance for their constant warfare with the elements, and the parsimony with which she had meted out to them the enjoyments of life.[3] In Denmark and Norway, however, people were so occupied with their own misery, that the accustomed voyages to Greenland ceased. Towering icebergs formed at the same time on the coast of East Greenland, in consequence of the general concussion of the earth's organism; and no mortal, from that time forward, has ever seen that shore or its inhabitants.[4]

It has been observed above, that in Russia the Black Plague did not break out until 1351, after it had already passed through the south and north of Europe. In this country also, the mortality was extraordinarily great; and the same scenes of affliction and despair were exhibited, as had occurred in those nations which had already passed the ordeal. The same mode of burial—the same horrible certainty of death—the same torpor and depression of spirits. The wealthy abandoned their treasures, and gave their villages and estates to the churches and monasteries; this being, according to the notions of the age, the surest way of securing the favour of Heaven and the forgiveness of past sins. In Russia, too, the voice of nature was silenced by fear and horror. In the hour of danger, fathers and mothers deserted their children, and children their parents.[5]

[1] *Guillelm. de Nangis*, loc. cit. and many others.

[2] *Dalin's* Svea Rikes Historie, Vol. II. c. 12. p. 496.

[3] *Saabye.* Tagebuch in Grönland. Einleit. XVIII.—*Torfæi* Histor. Norveg. Tom. IV. L. IX. c. viii. p. 478-79. *F. G. Mansa*, De epidemiis maxime memorabilibus quæ in Dania Grassatæ sunt, et de Medicinæ statu. Partic. I. Havn. 1831. 8vo. p. 12.

[4] *Torfæi* Groenlandia antiqua, s. veteris Groenlandiæ descriptio. Havniæ, 1715. 8vo. p. 23.—*Pontan.* Rer. danicar. Histor. Amstelod. 1631. fol. L. VII. p. 476.

[5] *Richter*, loc. cit.

Of all the estimates of the number of lives lost in Europe, the most probable is, that altogether a fourth part of the inhabitants were carried off. Now, if Europe at present contain 210,000,000 inhabitants, the population, not to take a higher estimate, which might easily be justified, amounted to at least 105,000,000 in the 16th century.

It may, therefore, be assumed, without exaggeration, that Europe lost during the Black Death 25,000,000 of inhabitants.

That her nations could so quickly overcome such a fearful concussion in their external circumstances, and, in general, without retrograding more than they actually did, could so develop their energies in the following century, is a most convincing proof of the indestructibility of human society as a whole. To assume, however, that it did not suffer any essential change internally, because in appearance everything remained as before, is inconsistent with a just view of cause and effect. Many historians seem to have adopted such an opinion; accustomed, as usual, to judge of the moral condition of the people solely according to the vicissitudes of earthly power, the events of battles, and the influence of religion, but to pass over with indifference the great phenomena of nature, which modify, not only the surface of the earth, but also the human mind. Hence, most of them have touched but superficially on the "great mortality" of the 14th century. We for our parts are convinced, that in the history of the world, the Black Death is one of the most important events which have prepared the way for the present state of Europe.

He who studies the human mind with attention, and forms a deliberate judgment on the intellectual powers which set people and states in motion, may, perhaps, find some proofs of this assertion in the following observations:—at that time, the advancement of the hierarchy was, in most countries, extraordinary; for the church acquired treasures and large properties in land, even to a greater extent than after the crusades; but experience has demonstrated, that such a state of things is ruinous to the people, and causes them to retrograde, as was evinced on this occasion.

After the cessation of the Black Plague, a greater fecundity in women was everywhere remarkable—a grand phenomenon, which, from its occurrence after every destructive pestilence, proves to conviction, if any occurrence can do so, the prevalence of a higher power in the direction of general organic life. Marriages were, almost without exception, prolific; and double and treble births were more frequent than at other times; under which head, we

should remember the strange remark, that after the "great mortality" the children were said to have got fewer teeth than before; at which contemporaries were mightily shocked, and even later writers have felt surprise.

If we examine the grounds of this oft-repeated assertion, we shall find that they were astonished to see children cut twenty, or at most, twenty-two teeth, under the supposition that a greater number had formerly fallen to their share.[1] Some writers of authority, as, for example, the physician Savonarola,[2] at Ferrara, who probably looked for twenty-eight teeth in children, published their opinions on this subject. Others copied from them, without seeing for themselves, as often happens in other matters which are equally evident; and thus the world believed in the miracle of an imperfection in the human body which had been caused by the Black Plague.

The people gradually consoled themselves after the sufferings which they had undergone; the dead were lamented and forgotten; and in the stirring vicissitudes of existence, the world belonged to the living.[3]

CHAPTER V.

MORAL EFFECTS.

The mental shock sustained by all nations during the prevalence of the Black Plague is without parallel and beyond description. In the eyes of the timorous, danger was the certain harbinger of death; many fell victims to fear, on the first appearance of the distemper,[4] and the most stout-hearted lost their confidence. Thus, after reliance on the future had died away, the spiritual union which binds man to his family and his fellow-creatures was gradu-

[1] We shall take this view of the subject from *Guillelm. de Nangis* and *Barnes*, if we read them *with attention*. Compare *Olof Dalin*, loc. cit.

[2] Practica de ægritudinibus a capite usque ad pedes. Papiæ, 1486. fol. Tract VI. c. vii.

[3] "Darnach, da das Sterben, die Geiselfarth, Römerfarth, Judenschlacht, als vorgeschrieben stehet, ein End hatte, da hub die Welt wieder an zu leben und fröhlich zu seyn, und machten die Männer neue Kleidung." Limburger Chronik. p. 26. After this, when, as was stated before, the Mortality, the Processions of the Flagellants, the Expeditions to Rome, and the Massacre of the Jews, were at an end, the world began to revive and be joyful, and the people put on new clothing.

[4] *Chalin*, loc. cit. p. 98. *Detmar's* Lübeck Chronicle, V. I. p. 401.

ally dissolved. The pious closed their accounts with the world,—eternity presented itself to their view,—their only remaining desire was for a participation in the consolations of religion, because to them death was disarmed of its sting.

Repentance seized the transgressor, admonishing him to consecrate his remaining hours to the exercise of Christian virtues. All minds were directed to the contemplation of futurity; and children, who manifest the more elevated feelings of the soul without alloy, were frequently seen, while labouring under the plague, breathing out their spirit with prayer and songs of thanksgiving.[1]

An awful sense of contrition seized Christians of every communion; they resolved to forsake their vices, to make restitution for past offences, before they were summoned hence, to seek reconciliation with their Maker, and to avert, by self-chastisement, the punishment due to their former sins. Human nature would be exalted, could the countless noble actions, which, in times of most imminent danger, were performed in secret, be recorded for the instruction of future generations. They, however, have no influence on the course of worldly events. They are known only to silent eye-witnesses, and soon fall into oblivion. But hypocrisy, illusion, and bigotry, stalk abroad undaunted; they desecrate what is noble, they pervert what is divine, to the unholy purposes of selfishness; which hurries along every good feeling in the false excitement of the age. Thus it was in the years of this plague. In the 14th century, the monastic system was still in its full vigour, the power of the ecclesiastical orders and brotherhoods was revered by the people, and the hierarchy was still formidable to the temporal power. It was, therefore, in the natural constitution of society that bigoted zeal, which in such times makes a show of public acts of penance, should avail itself of the semblance of religion. But this took place in such a manner, that unbridled, self-willed penitence, degenerated into lukewarmness, renounced obedience to the hierarchy, and prepared a fearful opposition to the church, paralysed as it was by antiquated forms.

[1] Chronic. *Ditmari*, Episcop. Mersepurg, Francof. 1580, fol. p. 358.—"*Spangenberg*, p. 338. The lamentation was piteous; and the only remaining solace, was the prevalent anxiety, inspired by the danger, to prepare for a glorious departure; no other hope remained—death appeared inevitable. Many were hence induced to search into their own hearts, to turn to God, and to abandon their wicked courses: parents warned their children, and instructed them how to pray, and to submit to the ways of Providence: neighbours mutually admonished each other; none could reckon on a single hour's respite. Many persons, and even young children, were seen bidding farewell to the world; some with prayer, others with praises on their lips."

While all countries were filled with lamentations and woe, there first arose in Hungary,[1] and afterwards in Germany, the Brotherhood of the Flagellants, called also the Brethren of the Cross, or Cross-bearers, who took upon themselves the repentance of the people, for the sins they had committed, and offered prayers and supplications for the averting of this plague. This Order consisted chiefly of persons of the lower class, who were either actuated by sincere contrition, or who joyfully availed themselves of this pretext for idleness, and were hurried along with the tide of distracting frenzy. But as these brotherhoods gained in repute, and were welcomed by the people with veneration and enthusiasm, many nobles and ecclesiastics ranged themselves under their standard; and their bands were not unfrequently augmented by children, honourable women, and nuns; so powerfully were minds of the most opposite temperaments enslaved by this infatuation.[2] They marched through the cities, in well-organized processions, with leaders and singers; their heads covered as far as the eyes; their look fixed on the ground, accompanied by every token of the deepest contrition and mourning. They were robed in sombre garments, with red crosses on the breast, back, and cap, and bore triple scourges, tied in three or four knots, in which points of iron were fixed.[3] Tapers and magnificent banners of velvet and cloth of gold, were carried before them; wherever they made their appearance, they were welcomed by the ringing of the bells; and the people flocked from all quarters, to listen to their hymns and to witness their penance, with devotion and tears.

In the year 1349, two hundred Flagellants first entered Strasburg, where they were received with great joy, and hospitably lodged by the citizens. Above a thousand joined the brotherhood, which now assumed the appearance of a wandering tribe, and separated into two bodies, for the purpose of journeying to the north

[1] *Torfæi* Hist. rer. Norvegic. L. IX. c. viii. p. 478. (Havn. 1711, fol.) *Die Cronica van der hilliger Stat van Coellen, off dat tyztboich*, Coellen, 1499, fol. p. 263. "*In dem vurss jair erhoiff sich eyn alzo wunderlich nuwe Geselschaft in Ungarien*," &c. The Chronicle of the holy city of Cologne, 1499. In this same year, a very remarkable society was formed in Hungary.

[2] *Albert. Argentinens.* Chronic. p. 149, in *Chr. Urstisius.* Germaniæ historicorum illustrium Tomus unus. Francof. 1585, fol.—*Guillelm. de Nang.* loc. cit.—Comp. also the Saxon Chronicle, by *Mattheus Dresseren*, Physician and Professor at Leipsig, Wittenberg, 1596, fol. p. 340; the above-named Limburg Chronicle, and the Germaniæ Chronicon, on the origin, name, commerce, &c., of all the Teutonic nations of Germany: by *Seb. Francken*, of Wörd. Tübingen, 1534, fol. p 201.

[3] *Ditmar*, loc. cit.

and to the south. For more than half a year, new parties arrived weekly; and, on each arrival, adults and children left their families to accompany them; till, at length, their sanctity was questioned, and the doors of houses and churches were closed against them.[1] At Spires, two hundred boys, of twelve years of age and under, constituted themselves into a Brotherhood of the Cross, in imitation of the children, who, about a hundred years before, had united, at the instigation of some fanatic monks, for the purpose of recovering the Holy Sepulchre. All the inhabitants of this town were carried away by the illusion; they conducted the strangers to their houses with songs of thanksgiving, to regale them for the night. The women embroidered banners for them, and all were anxious to augment their pomp: and at every succeeding pilgrimage, their influence and reputation increased.[2]

It was not merely some individual parts of the country that fostered them; all Germany, Hungary, Poland, Bohemia, Silesia, and Flanders, did homage to the mania; and they at length became as formidable to the secular, as they were to the ecclesiastical power. The influence of this fanaticism was great and threatening; resembling the excitement which called all the inhabitants of Europe into the deserts of Syria and Palestine, about two hundred and fifty years before. The appearance, in itself, was not novel. As far back as the 11th century, many believers, in Asia and Southern Europe, afflicted themselves with the punishment of flagellation. Dominicus Loricatus, a monk of St. Croce d'Avellano, is mentioned as the master and model of this species of mortification of the flesh; which, according to the primitive notions of the Asiatic Anchorites, was deemed eminently Christian. The author of the solemn processions of the Flagellants, is said to have been St. Anthony; for even in his time (1231) this kind of penance was so much in vogue, that it is recorded as an eventful circumstance in the history of the world. In 1260, the Flagellants appeared in Italy as *Devoti*. "When the land was polluted by vices and crimes,[3] an unexampled spirit of remorse suddenly seized the minds of the Italians. The fear of Christ fell upon all: noble and ignoble, old and young, and even children of five years of age, marched through the streets with no covering but a scarf round

[1] *Königshoven*, Elsassische und Strassburgische Chronicke. loc. cit. p. 297. f.

[2] *Albert. Argentin.* loc. cit. They never remained longer than one night at any place.

[3] Words of *Monachus Paduanus*, quoted in *Förstemann's* Treatise, which is the best upon this subject.—See p. 24.

the waist. They each carried a scourge of leathern thongs, which they applied to their limbs, amid sighs and tears, with such violence, that the blood flowed from the wounds. Not only during the day, but even by night, and in the severest winter, they traversed the cities with burning torches and banners, in thousands and tens of thousands, headed by their priests, and prostrated themselves before the altars. They proceeded in the same manner in the villages: and the woods and mountains resounded with the voices of those whose cries were raised to God. The melancholy chaunt of the penitent alone was heard. Enemies were reconciled, men and women vied with each other in splendid works of charity, as if they dreaded that Divine Omnipotence would pronounce on them the doom of annihilation."

The pilgrimages of the Flagellants extended throughout all the provinces of Southern Germany, as far as Saxony, Bohemia, and Poland, and even further; but at length, the priests resisted this dangerous fanaticism, without being able to extirpate the illusion, which was advantageous to the hierarchy, as long as it submitted to its sway. Regnier, a hermit of Perugia, is recorded as a fanatic preacher of penitence, with whom the extravagance originated.[1] In the year 1296, there was a great procession of the Flagellants in Strasburg;[2] and in 1334, fourteen years before the great mortality, the sermon of Venturinus, a Dominican friar, of Bergamo, induced above 10,000 persons to undertake a new pilgrimage. They scourged themselves in the churches, and were entertained in the market-places, at the public expense. At Rome, Venturinus was derided, and banished by the Pope to the mountains of Ricondona. He patiently endured all—went to the Holy Land, and died at Smyrna, 1346.[3] Hence we see that this fanaticism was a mania of the middle ages, which, in the year 1349, on so fearful an occasion, and while still so fresh in remembrance, needed no new founder; of whom, indeed, all the records are silent. It probably arose in many places at the same time;

[1] *Schnurrer*, Chronicle of the Plagues, T. I. p. 291.

[2] *Königshoven*, loc. cit.

[3] *Förstemann*, loc. cit. The Pilgrimages of the Flagellants of the year 1349, were not the last. Later in the 14th century this fanaticism still manifested itself several times, though never to so great an extent: in the 15th century, it was deemed necessary, in several parts of Germany, to extirpate them by fire and sword; and in the year 1710, processions of the Cross-bearers were still seen in Italy. How deeply this mania had taken root, is proved by the deposition of a citizen of Nordhäusen (1446): that his wife, in the belief of performing a Christian act, wanted to scourge her children, as soon as they were baptized.

for the terror of death, which pervaded all nations and suddenly set such powerful impulses in motion, might easily conjure up the fanaticism of exaggerated and overpowering repentance.

The manner and proceedings of the Flagellants of the 13th and 14th centuries exactly resemble each other. But if, during the Black Plague, simple credulity came to their aid, which seized, as a consolation, the grossest delusion of religious enthusiasm, yet it is evident that the leaders must have been intimately united, and have exercised the power of a secret association. Besides, the rude band was generally under the control of men of learning, some of whom, at least, certainly had other objects in view, independent of those which ostensibly appeared. Whoever was desirous of joining the brotherhood, was bound to remain in it thirty-four days, and to have four pence per day at his own disposal, so that he might not be burthensome to any one; if married, he was obliged to have the sanction of his wife, and give the assurance that he was reconciled to all men. The Brothers of the Cross were not permitted to seek for free quarters, or even to enter a house without having been invited; they were forbidden to converse with females; and if they transgressed these rules, or acted without discretion, they were obliged to confess to the Superior, who sentenced them to several lashes of the scourge, by way of penance. Ecclesiastics had not, as such, any pre-eminence among them; according to their original law, which, however, was often transgressed, they could not become Masters, or take part in the *Secret Councils*. Penance was performed twice every day; in the morning and evening they went abroad in pairs, singing psalms, amid the ringing of the bells; and when they arrived at the place of flagellation, they stripped the upper part of their bodies and put off their shoes, keeping on only a linen dress, reaching from the waist to the ancles. They then lay down in a large circle, in different positions, according to the nature of their crime: the adulterer with his face to the ground; the perjurer on one side, holding up three of his fingers, &c.; and were then castigated, some more and some less, by the Master, who ordered them to rise in the words of a prescribed form.[1] Upon this, they scourged themselves, amid the singing of psalms and loud supplications for the averting of the plague, with genuflexions, and other ceremonies,

[1] *Königshoven*, p. 298:

"*Stant uf durch der reinen Martel ere;*
Und hüte dich vor der Sünden mere."

of which contemporary writers give various accounts; and at the same time constantly boasted of their penance, that the blood of their wounds was mingled with that of the Saviour.[1] One of them, in conclusion, stood up to read a letter, which it was pretended an angel had brought from heaven, to St. Peter's church, at Jerusalem, stating that Christ, who was sore displeased at the sins of man, had granted, at the intercession of the Holy Virgin and of the angels, that all who should wander about for thirty-four days and scourge themselves, should be partakers of the Divine grace.[2] This scene caused as great a commotion among the believers as the finding of the holy spear once did at Antioch; and if any among the clergy inquired who had sealed the letter? he was boldly answered, the same who had sealed the Gospel!

All this had so powerful an effect, that the church was in considerable danger; for the Flagellants gained more credit than the priests, from whom they so entirely withdrew themselves, that they even absolved each other. Besides, they everywhere took possession of the churches, and their new songs, which went from mouth to mouth, operated strongly on the minds of the people. Great enthusiasm and originally pious feelings, are clearly distinguishable in these hymns, and especially in the chief psalm of the Cross-bearers, which is still extant, and which was sung all over Germany, in different dialects, and is probably of a more ancient date.[3] Degeneracy, however, soon crept in; crimes were everywhere committed; and there was no energetic man capable of directing the individual excitement to purer objects, even had an effectual resistance to the tottering church been at that early period seasonable, and had it been possible to restrain the fanaticism. The Flagellants sometimes undertook to make trial of their power of working miracles; as in Strasburg, where they attempted, in their own circle, to resuscitate a dead child: they however failed, and

[1] *Guill. de Nang.* loc. cit. [2] *Albert. Argentinens.* loc. cit.

[3] We meet with fragments of different lengths in the Chronicles of the times, but the only entire MS. which we possess, is in the valuable Library of President *von Meusebach*. *Massman* has had this printed, accompanied by a translation, entitled *Erläuterungen zum Wessobrunner Gebet des* 8ten *Jahrhunderts. Nebst* ZWEIEN *noch ungedruckten*, GEDICHTEN DES VIERZEHNTEN JAHRHUNDERTS, Berlin, 1824. "Elucidations of the Wessobrunn Prayer of the 8th century, together with two unpublished Hymns of the 14th century." We shall subjoin it at the end of this Treatise, as a striking document of the age. The Limburg Chronicle asserts, indeed, that it was not composed till that time, although a part, if not the whole, of it, was sung in the procession of the Flagellants, in 1260.—See Incerti auctoris Chronicon rerum per Austriam Vicinasque regiones gestarum inde ab anno 1025, usque ad annum 1282. Munich, 1827-8, p. 9.

their unskilfulness did them much harm, though they succeeded here and there in maintaining some confidence in their holy calling, by pretending to have the power of casting out evil spirits.[1]

The Brotherhood of the Cross announced that the pilgrimage of the Flagellants was to continue for a space of thirty-four years; and many of the Masters had, doubtless, determined to form a lasting league against the church; but they had gone too far. So early as the first year of their establishment, the general indignation set bounds to their intrigues; so that the strict measures adopted by the Emperor Charles IV., and Pope Clement,[2] who, throughout the whole of this fearful period, manifested prudence and noble-mindedness, and conducted himself in a manner every way worthy of his high station, were easily put into execution.[3]

The Sorbonne, at Paris, and the Emperor Charles, had already applied to the Holy See, for assistance against these formidable and heretical excesses, which had well nigh destroyed the influence of the clergy in every place; when a hundred of the Brotherhood of the Cross arrived at Avignon from Basle, and desired admission. The Pope, regardless of the intercession of several cardinals, interdicted their public penance, which he had not authorized; and, on pain of excommunication, prohibited throughout Christendom the continuance of these pilgrimages.[4] Philip VI., supported by the condemnatory judgment of the Sorbonne, forbad their reception in France.[5] Manfred, King of Sicily, at the same time threatened them with punishment by death: and in the East, they were withstood by several bishops, among whom was Janussius, of Gnesen,[6] and Preczlaw, of Breslaw, who condemned to death one of their Masters, formerly a deacon; and, in conformity with the barbarity of the times, had him publicly burnt.[7] In Westphalia, where so shortly before they had venerated the Brothers of the Cross, they now persecuted them with relentless severity;[8] and in the Mark, as well as in all the other countries

[1] *Trithem.* Annal. Hirsaugiens, T. II. p. 206.

[2] He issued a bull against them, Oct. 20, 1349. *Raynald. Trithem.* loc. cit.

[3] But as they at last ceased to excite astonishment, were no longer welcomed by the ringing of bells, and were not received with veneration, as before, they vanished as human imaginations are wont to do. Saxon Chronicle, by *Matt. Dresseren.* Wittenberg, 1596, fol. p. 340, 341.

[4] *Albert. Argentinens.* loc. cit.

[5] *Guillelm. de Nangis.*

[6] *Ditmar.* loc. cit.

[7] *Klose* of Breslaw's Documental History and Description, 8vo. Vol. II. p. 190. Breslaw, 1781.

[8] Limburg Chronicle, p. 17.

of Germany, they pursued them, as if they had been the authors of every misfortune.[1]

The processions of the Brotherhood of the Cross undoubtedly promoted the spreading of the plague; and it is evident, that the gloomy fanaticism which gave rise to them would infuse a new poison into the already desponding minds of the people.

Still, however, all this was within the bounds of barbarous enthusiasm; but horrible were the persecutions of the Jews, which were committed in most countries, with even greater exasperation than in the 12th century, during the first Crusades. In every destructive pestilence, the common people at first attribute the mortality to poison. No instruction avails; the supposed testimony of their eyesight is to them a proof, and they authoritatively demand the victims of their rage. On whom then was it so likely to fall, as on the Jews, the usurers and the strangers who lived as enmity with the Christians? They were everywhere suspected of having poisoned the wells or infected the air.[2] They alone were considered as having brought this fearful mortality upon the Christians.[3] They were, in consequence, pursued with merciless cruelty; and either indiscriminately given up to the fury of the populace, or sentenced by sanguinary tribunals, which, with all the forms of law, ordered them to be burnt alive. In times like these, much is indeed said of guilt and innocence; but hatred and revenge bear down all discrimination, and the smallest probability magnifies suspicion into certainty. These bloody scenes, which disgraced Europe in the 14th century, are a counterpart to a similar mania of the age, which was manifested in the persecutions of witches and sorcerers; and, like these, they prove, that enthusiasm, associated with hatred, and leagued with the baser passions, may work more powerfully upon whole nations, than religion and legal order; nay, that it even knows how to profit by the authority of both, in order the more surely to satiate with blood, the sword of long-suppressed revenge.

The persecution of the Jews commenced in September and October, 1348,[4] at Chillon, on the Lake of Geneva, where the first

[1] *Kehrberg's* Description of Königsberg, *i. e.* Neumark, 1724, 4to. p. 240.

[2] So says the Polish historian *Dlugoss*, loc. cit., while most of his contemporaries mention only the poisoning of the wells. It is evident, that in the state of their feelings, it mattered little whether they added another still more formidable accusation.

[3] In those places where no Jews resided, as in Leipsig, Magdeburg, Brieg, Frankenstein, &c., the grave-diggers were accused of the crime.—V. *Möhsen's* History of the Sciences in the March of Brandenburg, T. II. p. 265.

[4] See the original proceedings, in the Appendix.

criminal proceedings were instituted against them, after they had long before been accused by the people of poisoning the wells; similar scenes followed in Bern and Freyburg, in January, 1349. Under the influence of excruciating suffering, the tortured Jews confessed themselves guilty of the crime imputed to them; and it being affirmed that poison had in fact been found in a well at Zoffingen, this was deemed a sufficient proof to convince the world; and the persecution of the abhorred culprits thus appeared justifiable. Now, though we can take as little exception at these proceedings, as at the multifarious confessions of witches, because the interrogatories of the fanatical and sanguinary tribunals were so complicated, that by means of the rack, the required answer must inevitably be obtained; and it is besides conformable to human nature, that crimes which are in everybody's mouth, may, in the end, be actually committed by some, either from wantonness, revenge, or desperate exasperation; yet crimes and accusations are, under circumstances like these, merely the offspring of a revengeful, frenzied spirit in the people; and the accusers, according to the fundamental principles of morality, which are the same in every age, are the more guilty transgressors.

Already in the autumn of 1348, a dreadful panic, caused by this supposed empoisonment, seized all nations; in Germany especially, the springs and wells were built over, that nobody might drink of them, or employ their contents for culinary purposes; and for a long time, the inhabitants of numerous towns and villages used only river and rain water.[1] The city gates were also guarded with the greatest caution: only confidential persons were admitted; and if medicine, or any other article, which might be supposed to be poisonous, was found in the possession of a stranger,—and it was natural that some should have these things by them for their private use,—they were forced to swallow a portion of it.[2] By this trying state of privation, distrust, and suspicion, the hatred against the supposed poisoners became greatly increased, and often broke out in popular commotions, which only served still further to infuriate the wildest passions. The noble and the mean fearlessly bound themselves by an oath to extirpate the Jews by fire and sword, and to snatch them from their protectors, of whom the

[1] *Hermanni Gygantis* Flores temporum, sive Chronicon Universale—*Ed. Meuschen.* Lugdun. Bat. 1743. 4to. p. 139. Hermann, a Franciscan monk of Franconia, who wrote in the year 1349, was an eye-witness of the most revolting scenes of vengeance, throughout all Germany.

[2] *Guid. Cauliac*, loc. cit.

number was so small, that throughout all Germany but few places can be mentioned where these unfortunate people were not regarded as outlaws and martyred and burnt.[1] Solemn summonses were issued from Bern to the towns of Basle, Freyburg in the Breisgau, and Strasburg, to pursue the Jews as poisoners. The Burgomasters and Senators, indeed, opposed this requisition; but in Basle the populace obliged them to bind themselves by an oath to burn the Jews, and to forbid persons of that community from entering their city, for the space of two hundred years. Upon this, all the Jews in Basle, whose number could not have been inconsiderable, were inclosed in a wooden building, constructed for the purpose, and burnt, together with it, upon the mere outcry of the people, without sentence or trial, which indeed would have availed them nothing. Soon after, the same thing took place at Freyburg. A regular Diet was held at Bennefeld, in Alsace, where the bishops, lords, and barons, as also deputies of the counties and towns, consulted how they should proceed with regard to the Jews; and when the deputies of Strasburg—not indeed the bishop of this town, who proved himself a violent fanatic—spoke in favour of the persecuted, as nothing criminal was substantiated against them; a great outcry was raised, and it was vehemently asked, why, if so, they had covered their wells and removed their buckets? A sanguinary decree was resolved upon, of which the populace, who obeyed the call of the nobles and superior clergy, became but the too willing executioners.[2] Wherever the Jews were not burnt, they were at least banished; and so being compelled to wander about, they fell into the hands of the country people, who without humanity, and regardless of all laws, persecuted them with fire and sword. At Spires the Jews, driven to despair, assembled in their own habitations, which they set on fire, and thus consumed themselves with their families. The few that remained were forced to submit to baptism; while the dead bodies of the murdered, which lay about the streets, were put into empty wine casks, and rolled into the Rhine, lest they should infect the air. The mob was forbidden to enter the ruins of the habitations that were burnt in the Jewish quarter; for the senate itself caused search to be made for the treasure, which is said to have been very considerable. At Strasburg, two thousand Jews were burnt alive in their own burial ground, where a large scaffold had been erected: a few who pro-

[1] *Hermann.* loc. cit.

[2] *Albert. Argentin.*—*Königshoven*, loc. cit.

mised to embrace Christianity, were spared, and their children taken from the pile. The youth and beauty of several females also excited some commiseration; and they were snatched from death against their will: many, however, who forcibly made their escape from the flames, were murdered in the streets.

The senate ordered all pledges and bonds to be returned to the debtors, and divided the money among the work-people.[1] Many, however, refused to accept the base price of blood, and, indignant at the scenes of blood-thirsty avarice, which made the infuriated multitude forget[2] that the plague was raging around them, presented it to monasteries, in conformity with the advice of their confessors. In all the countries on the Rhine, these cruelties continued to be perpetrated during the succeeding months; and after quiet was in some degree restored, the people thought to render an acceptable service to God, by taking the bricks of the destroyed dwellings, and the tombstones of the Jews, to repair churches and to erect belfries.[3]

In Mayence alone, 12,000 Jews are said to have been put to a cruel death. The Flagellants entered that place in August; the Jews, on this occasion, fell out with the Christians, and killed several; but when they saw their inability to withstand the increasing superiority of their enemies, and that nothing could save them from destruction, they consumed themselves and their families, by setting fire to their dwellings. Thus also, in other places, the entry of the Flagellants gave rise to scenes of slaughter; and as thirst for blood was everywhere combined with an unbridled spirit of proselytism, a fanatic zeal arose among the Jews to perish as martyrs to their ancient religion. And how was it possible that they could from the heart embrace Christianity, when its precepts were never more outrageously violated? At Eslingen, the whole Jewish community burned themselves in their synagogue;[4] and mothers were often seen throwing their children on the pile, to prevent their being baptized, and then precipitating themselves into the flames.[5] In short, whatever deeds fanaticism, revenge,

[1] *Dies was ouch die Vergift, die die Juden döttete.* "This was also the poison that killed the Jews," observes *Königshoven*, which he illustrates by saying, that their increase in Germany was very great, and their mode of gaining a livelihood, which, however, was the only resource left them, had engendered ill-will against them in all quarters.

[2] Many wealthy Jews, for example, were, on their way to the stake, stripped of their garments, for the sake of the gold coin that was sewed in them.—*Albert. Argentinens.*

[3] Vide preceding note.

[4] *Spangenberg*, loc. cit.

[5] *Guillelm. de Nangis.*—*Dlugoss*, loc. cit.

avarice, and desperation, in fearful combination, could instigate mankind to perform,—and where in such a case is the limit? —were executed in the year 1349, throughout Germany, Italy, and France, with impunity, and in the eyes of all the world. It seemed as if the plague gave rise to scandalous acts and frantic tumults, not to mourning and grief: and the greater part of those who, by their education and rank, were called upon to raise the voice of reason, themselves led on the savage mob to murder and to plunder. Almost all the Jews who saved their lives by baptism, were afterwards burnt at different times; for they continued to be accused of poisoning the water and the air. Christians also, whom philanthropy or gain had induced to offer them protection, were put on the rack and executed with them.[1] Many Jews who had embraced Christianity, repented of their apostasy,—and, returning to their former faith, sealed it with their death.[2]

The humanity and prudence of Clement VI. must, on this occasion, also be mentioned to his honour; but even the highest ecclesiastical power was insufficient to restrain the unbridled fury of the people. He not only protected the Jews at Avignon, as far as lay in his power, but also issued two bulls, in which he declared them innocent; and admonished all Christians, though without success, to cease from such groundless persecutions.[3] The Emperor Charles IV. was also favourable to them, and sought to avert their destruction, wherever he could; but he dared not draw the sword of justice, and even found himself obliged to yield to the selfishness of the Bohemian nobles, who were unwilling to forego so favourable an opportunity of releasing themselves from their Jewish creditors, under favour of an imperial mandate.[4] Duke Albert of Austria burned and pillaged those of his cities which had persecuted the Jews,—a vain and inhuman proceeding, which, moreover, is not exempt from the suspicion of covetousness; yet he was unable, in his own fortress of Kyberg, to protect some hundreds of Jews, who had been received there, from being barbarously burnt by the inhabitants.[5] Several other princes and counts, among whom was Ruprecht von der Pfalz, took the Jews under their protection, on the payment of large sums: in consequence of which they were called "Jew-masters," and were in dan-

[1] *Albert. Argentinens.*

[2] *Spangenberg* describes a similar scene which took place at Kostnitz.

[3] *Guillelm. de Nang.—Raynald.*

[4] Histor. Landgrav. *Thuring.* in *Pistor.* loc. cit. Vol. I. p. 948.

[5] Anonym. *Leobiens*, in *Pez.* loc. cit.

ger of being attacked by the populance and by their powerful neighbours.[1] These persecuted and ill-used people, except indeed where humane individuals took compassion on them at their own peril, or when they could command riches to purchase protection, had no place of refuge left but the distant country of Lithuania, where Boleslav V., Duke of Poland (1227—1279), had before granted them liberty of conscience; and King Casimir the Great (1333—1370), yielding to the entreaties of Esther, a favourite Jewess, received them, and granted them further protection:[2] on which account, that country is still inhabited by a great number of Jews, who by their secluded habits have, more than any people in Europe, retained the manners of the middle ages.

But to return to the fearful accusations against the Jews; it was reported in all Europe, that they were in connexion with secret superiors in Toledo, to whose decrees they were subject, and from whom they had received commands respecting the coining of base money, poisoning, the murder of Christian children, &c.;[3] that they received the poison by sea from remote parts, and also prepared it themselves from spiders, owls, and other venomous animals; but, in order that their secret might not be discovered, that it was known only to their Rabbis and rich men.[4] Apparently there were but few who did not consider this extravagant accusation well founded; indeed, in many writings of the 14th century, we find great acrimony with regard to the suspected poison-mixers, which plainly demonstrates the prejudice existing against them. Unhappily, after the confessions of the first victims in Switzerland, the rack extorted similar ones in various places. Some even acknowledged having received poisonous powder in bags, and injunctions from Toledo, by secret messengers.

[1] *Spangenberg.* In the county of Mark, the Jews were no better off than in the rest of Germany. Margrave *Ludwig*, the Roman, even countenanced their persecutions, of which *Kehrberg*, loc. cit. 241, gives the following official account: Coram cunctis, Christi fidelibus præsentia percepturis, ego *Johannes* dictus *de Wedel* Advocatus, inclyti Principis Domini, *Ludovici*, Marchionis, publice profiteor et recognosco, quod nomine Domini mei civitatem Königsberg visitavi et intravi, et ex parte Domini Marchionis Consulibus ejusdem civitatis in adjutorium mihi assumtis, *Judæos inibi morantes igne cremavi*, bonaque omnia eorundem Judæorum ex parte Domini mei totaliter usurpavi et assumsi. In cujus testimonium præsentibus meum sigillum appendi. Datum A.D. 1351. in Vigilia S. Matthæi Apostoli.

[2] *Basnage*, Histoire des Juifs. A la Haye, 1716. 8vo. T. IX. Part. 2. Liv. IX. Chap. 23. §. 12. 24. pp. 664. 679. This valuable work gives an interesting account of the state of the Jews of the middle ages. Compare *J. M. Jost's* History of the Israelites from the time of the Maccabees to the present day. T. VII. Berlin, 1827. 8vo. pp. 8. 262.

[3] *Albert. Argentinens.* [4] *Hermann. Gygas.* loc. cit.

Bags of this description were also often found in wells, though it was not unfrequently discovered that the Christians themselves had thrown them in; probably to give occasion to murder and pillage; similar instances of which may be found in the persecutions of the witches.[1]

This picture needs no additions. A lively image of the Black Plague, and of the moral evil which followed in its train, will vividly represent itself to him who is acquainted with nature and the constitution of society. Almost the only credible accounts of the manner of living, and of the ruin which occurred in private life, during this pestilence, are from Italy; and these may enable us to form a just estimate of the general state of families in Europe, taking into consideration what is peculiar in the manners of each country.

"When the evil had become universal" (speaking of Florence), "the hearts of all the inhabitants were closed to feelings of humanity. They fled from the sick and all that belonged to them, hoping by these means to save themselves. Others shut themselves up in their houses, with their wives, their children and households, living on the most costly food, but carefully avoiding all excess. None were allowed access to them; no intelligence of death or sickness was permitted to reach their ears; and they spent their time in singing and music, and other pastimes. Others, on the contrary, considered eating and drinking to excess, amusements of all descriptions, the indulgence of every gratification, and an indifference to what was passing around them, as the best medicine, and acted accordingly. They wandered day and night from one tavern to another, and feasted without moderation or bounds. In this way they endeavoured to avoid all contact with the sick, and abandoned their houses and property to chance, like men whose death-knell had already tolled.

[1] On this subject see *Königshoven*, who has preserved some very valuable original proceedings. The most important are, the criminal examinations of ten Jews, at Chillon, on the Lake of Geneva, held in September and October, 1348.—V. Appendix. They produced the most strange confessions, and sanctioned, by the false name of justice, the blood-thirsty fanaticism which lighted the funeral piles. Copies of these proceedings were sent to Bern and Strasburg, where they gave rise to the first persecutions against the Jews.—V. also the original document of the offensive and defensive Alliance between *Berthold von Götz*, Bishop of Strasburg, and many powerful lords and nobles, in favour of the city of Strasburg, against Charles IV. The latter saw himself compelled, in consequence, to grant to that city an amnesty for the Jewish persecutions, which in our days would be deemed disgraceful to an imperial crown. Not to mention many other documents, which no less clearly show the spirit of the 14th century, p. 1021. f.

Amid this general lamentation and woe, the influence and authority of every law, human and divine, vanished. Most of those who were in office, had been carried off by the plague, or lay sick, or had lost so many members of their families, that they were unable to attend to their duties; so that thenceforth every one acted as he thought proper. Others, in their mode of living, chose a middle course. They ate and drank what they pleased, and walked abroad, carrying odoriferous flowers, herbs or spices, which they smelt to from time to time, in order to invigorate the brain, and to avert the baneful influence of the air, infected by the sick, and by the innumerable corpses of those who had died of the plague. Others carried their precaution still further, and thought the surest way to escape death was by flight. They therefore left the city; women as well as men abandoning their dwellings, and their relations, and retiring into the country. But of these, also, many were carried off, most of them alone and deserted by all the world, themselves having previously set the example. Thus it was, that one citizen fled from another—a neighbour from his neighbours—a relation from his relations; and in the end, so completely had terror extinguished every kindlier feeling, that the brother forsook the brother—the sister the sister—the wife her husband; and at last, even the parent his own offspring, and abandoned them, unvisited and unsoothed, to their fate. Those, therefore, that stood in need of assistance fell a prey to greedy attendants; who, for an exorbitant recompense, merely handed the sick their food and medicine, remained with them in their last moments, and then not unfrequently became themselves victims to their avarice, and lived not to enjoy their extorted gain. Propriety and decorum were extinguished among the helpless sick. Females of rank seemed to forget their natural bashfulness, and committed the care of their persons, indiscriminately, to men and women of the lowest order. No longer were women, relatives or friends, found in the houses of mourning, to share the grief of the survivors—no longer was the corpse accompanied to the grave by neighbours and a numerous train of priests, carrying wax tapers and singing psalms, nor was it borne along by other citizens of equal rank. Many breathed their last without a friend to soothe their dying pillow; and few indeed were they who departed amid the lamentations and tears of their friends and kindred. Instead of sorrow and mourning, appeared indifference, frivolity, and mirth; this being considered, especially by the females, as conducive to health. Seldom was the body followed by even ten or

twelve attendants; and instead of the usual bearers and sextons, mercenaries of the lowest of the populace undertook the office for the sake of gain; and accompanied by only a few priests, and often without a single taper, it was borne to the very nearest church, and lowered into the first grave that was not already too full to receive it. Among the middling classes, and especially among the poor, the misery was still greater. Poverty or negligence induced most of these to remain in their dwellings, or in the immediate neighbourhood; and thus they fell by thousands; and many ended their lives in the streets, by day and by night. The stench of putrefying corpses was often the first indication to their neighbours that more deaths had occurred. The survivors, to preserve themselves from infection, generally had the bodies taken out of the houses, and laid before the doors; where the early morn found them in heaps, exposed to the affrighted gaze of the passing stranger. It was no longer possible to have a bier for every corpse,—three or four were generally laid together—husband and wife, father and mother, with two or three children, were frequently borne to the grave on the same bier; and it often happened that two priests would accompany a coffin, bearing the cross before it, and be joined on the way by several other funerals; so that instead of one, there were five or six bodies for interment."

Thus far Boccacio. On the conduct of the priests, another contemporary observes:[1] "In large and small towns, they had withdrawn themselves through fear, leaving the performance of ecclesiastical duties to the few who were found courageous and faithful enough to undertake them." But we ought not on that account to throw more blame on them than on others; for we find proofs of the same timidity and heartlessness in every class. During the prevalence of the Black Plague, the charitable orders conducted themselves admirably, and did as much good as can be done by individual bodies, in times of great misery and destruction; when compassion, courage, and nobler feelings, are found but in the few, while cowardice, selfishness, and ill-will, with the baser passions in their train, assert the supremacy. In place of virtue which had been driven from the earth, wickedness everywhere reared her rebellious standard, and succeeding generations were consigned to the dominion of her baleful tyranny.

[1] *Guillelm. de Nangis*, p. 110.

CHAPTER VI.

PHYSICIANS.

If we now turn to the medical talent which encountered the "*Great Mortality,*" the middle ages must stand excused, since even the moderns are of opinion that the art of medicine is not able to cope with the Oriental plague, and can afford deliverance from it only under particularly favourable circumstances.[1] We must bear in mind also, that human science and art appear particularly weak in great pestilences, because they have to contend with the powers of nature, of which they have no knowledge; and which, if they had been, or could be, comprehended in their collective effects, would remain uncontrollable by them, principally on account of the disordered condition of human society. Moreover, every new plague has its peculiarities, which are the less easily discovered on the first view, because, during its ravages, fear and consternation humble the proud spirit.

The physicians of the 14th century, during the Black Death, did what human intellect could do in the actual condition of the healing art; and their knowledge of the disease was by no means despicable. They, like the rest of mankind, have indulged in prejudices, and defended them, perhaps, with too much obstinacy: some of these, however, were founded on the mode of thinking of the age, and passed current in those days, as established truths: others continue to exist to the present hour.

Their successors in the 19th century ought not therefore to vaunt too highly the pre-eminence of their knowledge, for they too will be subjected to the severe judgment of posterity—they too will, with reason, be accused of human weakness and want of foresight.

The medical faculty of Paris, the most celebrated of the 14th century, were commissioned to deliver their opinion on the causes of the Black Plague, and to furnish some appropriate regulations with regard to living, during its prevalence. This document is sufficiently remarkable to find a place here.

"We, the Members of the College of Physicians, of Paris, have, after mature consideration and consultation on the present mortality, collected the advice of our old masters in the art, and

[1] "Curationem omnem respuit pestis confirmata."—*Chalin*, p. 33.

intend to make known the causes of this pestilence, more clearly than could be done according to the rules and principles of astrology and natural science; we, therefore, declare as follows:—

"It is known that in India, and the vicinity of the Great Sea, the constellations which combated the rays of the sun, and the warmth of the heavenly fire, exerted their power especially against that sea, and struggled violently with its waters. (Hence, vapours often originate which envelope the sun, and convert his light into darkness.) These vapours alternately rose and fell for twenty-eight days; but at last, sun and fire acted so powerfully upon the sea, that they attracted a great portion of it to themselves, and the waters of the ocean arose in the form of vapour; thereby the waters were, in some parts, so corrupted, that the fish which they contained, died. These corrupted waters, however, the heat of the sun could not consume, neither could other wholesome water, hail or snow, and dew, originate therefrom. On the contrary, this vapour spread itself through the air in many places on the earth, and enveloped them in fog.

"Such was the case all over Arabia, in a part of India; in Crete; in the plains and valleys of Macedonia; in Hungary, Albania, and Sicily. Should the same thing occur in Sardinia, not a man will be left alive; and the like will continue, so long as the sun remains in the sign of Leo, on all the islands and adjoining countries to which this corrupted sea-wind extends, or has already extended from India. If the inhabitants of those parts do not employ and adhere to the following, or similar, means and precepts, we announce to them inevitable death—except the grace of Christ preserve their lives.

"We are of opinion, that the constellations, with the aid of Nature, strive, by virtue of their divine might, to protect and heal the human race; and to this end, in union with the rays of the sun, acting through the power of fire, endeavour to break through the mist. Accordingly, within the next ten days, and until the 17th of the ensuing month of July, this mist will be converted into a stinking deleterious rain, whereby the air will be much purified. Now, as soon as this rain shall announce itself, by thunder or hail, every one of you should protect himself from the air; and, as well before as after the rain, kindle a large fire of vine-wood, green laurel, or other green wood; wormwood and chamomile should also be burnt in great quantity in the market-places, in other densely inhabited localities, and in the houses. Until the earth is again completely dry, and for three days after-

wards, no one ought to go abroad in the fields. During this time the diet should be simple, and people should be cautious in avoiding exposure in the cool of the evening, at night, and in the morning. Poultry and water-fowl, young pork, old beef, and fat meat in general, should not be eaten; but on the contrary, meat of a proper age, of a warm and dry, but on no account of a heating and exciting nature. Broth should be taken, seasoned with ground pepper, ginger, and cloves, especially by those who are accustomed to live temperately, and are yet choice in their diet. Sleep in the day-time is detrimental; it should be taken at night until sunrise, or somewhat longer. At breakfast, one should drink little; supper should be taken an hour before sunset, when more may be drunk than in the morning. Clear light wine, mixed with a fifth or sixth part of water, should be used as a beverage. Dried or fresh fruits, with wine, are not injurious; but highly so without it. Beet-root and other vegetables, whether eaten pickled or fresh, are hurtful; on the contrary, spicy pot-herbs, as sage or rosemary, are wholesome. Cold, moist, watery food is in general prejudicial. Going out at night, and even until three o'clock in the morning, is dangerous, on account of the dew. Only small river fish should be used. Too much exercise is hurtful. The body should be kept warmer than usual, and thus protected from moisture and cold. Rain-water must not be employed in cooking, and every one should guard against exposure to wet weather. If it rain, a little fine treacle should be taken after dinner. Fat people should not sit in the sunshine. Good clear wine should be selected and drunk often, but in small quantities, by day. Olive oil as an article of food, is fatal. Equally injurious are fasting and excessive abstemiousness, anxiety of mind, anger, and immoderate drinking. Young people, in autumn especially, must abstain from all these things, if they do not wish to run a risk of dying of dysentery. In order to keep the body properly open, an enema, or some other simple means, should be employed, when necessary. Bathing is injurious. Men must preserve chastity as they value their lives. Every one should impress this on his recollection, but especially those who reside on the coast, or upon an island into which the noxious wind has penetrated."[1]

On what occasion these strange precepts were delivered can no

[1] *Jacob. Francischini de Ambrosiis.* In the Appendix to the Istorie Pistolesi, in *Muratori*, Tom. XI. p. 528.

longer be ascertained, even if it were an object to know it. It must be acknowledged, however, that they do not redound to the credit either of the faculty of Paris, or of the 14th century in general. This famous faculty found themselves under the painful necessity of being wise at command, and of firing a point blank shot of erudition at an enemy who enveloped himself in a dark mist, of the nature of which they had no conception. In concealing their ignorance by authoritative assertions, they suffered themselves, therefore, to be misled; and while endeavouring to appear to the world with eclat, only betrayed to the intelligent their lamentable weakness. Now some might suppose, that in the condition of the sciences of the 14th century, no intelligent physicians existed; but this is altogether at variance with the laws of human advancement, and is contradicted by history. The real knowledge of an age is shown only in the archives of its literature. Here alone the genius of truth speaks audibly:—here alone men of talent deposit the results of their experience and reflection, without vanity or a selfish object. There is no ground for believing that, in the 14th century, men of this kind were publicly questioned regarding their views; and it is, therefore, the more necessary that impartial history should take up their cause and do justice to their merits.

The first notice on this subject is due to a very celebrated teacher in Perugia, Gentilis of Foligno, who, on the 18th of June, 1348, fell a sacrifice to the plague, in the faithful discharge of his duty.[1] Attached to Arabian doctrines, and to the universally respected Galen, he, in common with all his contemporaries, believed in a putrid corruption of the blood in the lungs and in the heart, which was occasioned by the pestilential atmosphere, and was forthwith communicated to the whole body. He thought, therefore, that everything depended upon a sufficient purification of the air, by means of large blazing fires of odoriferous wood, in the vicinity of the healthy, as well as of the sick, and also upon an appropriate manner of living; so that the putridity might not overpower the diseased. In conformity with notions derived from the ancients, he depended upon bleeding and purging, at the commencement of the attack, for the purpose of purification; ordered the healthy to wash themselves frequently with vinegar or wine, to sprinkle their dwellings with vinegar, and to smell often to

[1] *Gentilis de Fulgineo* Consilia. De Peste Cons. I. II. fol. 76, 77. Venet. 1514. fol.

camphor, or other volatile substances. Hereupon he gave, after the Arabian fashion, detailed rules, with an abundance of different medicines, of whose healing powers wonderful things were believed. He laid little stress upon super-lunar influences, so far as respected the malady itself; on which account, he did not enter into the great controversies of the astrologers, but always kept in view, as an object of medical attention, the corruption of the blood in the lungs and heart. He believed in a progressive infection from country to country, according to the notions of the present day; and the contagious power of the disease, even in the vicinity of those affected by plague, was, in his opinion, beyond all doubt.[1] On this point, intelligent contemporaries were all agreed; and in truth, it required no great genius to be convinced of so palpable a fact. Besides, correct notions of contagion have descended from remote antiquity, and were maintained unchanged in the 14th century.[2] So far back as the age of Plato, a knowledge of the contagious power of malignant inflammations of the eye, of which also no physician of the middle ages entertained a doubt,[3] was general among the people;[4] yet, in modern times, surgeons have filled volumes with partial controversies on this subject. The whole language of antiquity has adapted itself to the notions of the people, respecting the contagion of pestilential diseases; and their terms were, beyond comparison, more expressive than those in use among the moderns.[5]

Arrangements for the protection of the healthy against contagious diseases, the necessity of which is shown from these notions, were regarded by the ancients as useful; and by many, whose circumstances permitted it, were carried into effect in their houses. Even a total separation of the sick from the healthy, that indispensable means of protection against infection by contact, was proposed by physicians of the 2nd century after Christ, in order to check the spreading of leprosy. But it was decidedly opposed, because, as it was alleged, the healing art ought not to be guilty of such harshness.[6] This mildness of the ancients, in whose manner

[1] —"venenosa putredo circa partes cordis et pulmonis de quibus exeunte venenoso vapore, periculum est in vicinitatibus." Cons. I. fol. 76, a.

[2] *Dr. Maclean's* notion that the doctrine of contagion was first promulgated in the year 1547, by Pope Paul III., &c., thus falls to the ground, together with all the arguments founded on it.—See *Maclean* on Epid. and Pestilent. Diseases, 8vo, 1817, Pt. II. Book II. ch. 3, 4.—*Transl. note.*

[3] Lippitudo contagione spectantium oculos afficit.—*Chalin de Vinario*, p. 149.

[4] See the Author's Geschichte der Heilkunde, Vol. II. P. III.

[5] Compare *Marx*, Origines contagii. Caroliruh. et Bad. 1824. 8.

[6] *Cœl. Aurelian.* Chron. L. IV. c. 1. p. 497. *Ed. Amman.* "Sed hi ægrotantem

of thinking inhumanity was so often and so undisguisedly conspicuous, might excite surprise, if it were anything more than apparent. The true ground of the neglect of public protection against pestilential diseases, lay in the general notion and constitution of human society,—it lay in the disregard of human life, of which the great nations of antiquity have given proofs in every page of their history. Let it not be supposed that they wanted knowledge respecting the propagation of contagious diseases. On the contrary, they were as well informed on this subject as the moderns; but this was shown where individual property, not where human life, on the grand scale, was to be protected. Hence the ancients made a general practice of arresting the progress of murrains among cattle, by a separation of the diseased from the healthy. Their herds alone enjoyed that protection which they held it impracticable to extend to human society, because they had no wish to do so.[1] That the governments in the 14th century were not yet so far advanced, as to put into practice general regulations for checking the plague, needs no especial proof. Physicians could, therefore, only advise public purifications of the air by means of large fires, as had often been practised in ancient times; and they were obliged to leave it to individual families, either to seek safety in flight, or to shut themselves up in their dwellings,[2] a method which answers in common plagues, but which here afforded no complete security, because such was the fury of the disease when it was at its height, that the atmosphere of whole cities was penetrated by the infection.

Of the astral influence which was considered to have originated the "*Great Mortality*," physicians and learned men were as completely convinced as of the fact of its reality. A grand conjunction of the three superior planets, Saturn, Jupiter, and Mars, in the sign of Aquarius, which took place, according to Guy de Chauliac, on the 24th of March, 1345, was generally received as its principal cause. In fixing the day, this physician, who was deeply versed in astrology, did not agree with others; whereupon there

destituendum magis imperant, quam curandum, quod a se alienum humanitas approbat medicinæ."

[1] *Geschichte der Heilkunde*, Vol. II. p. 248.

[2] *Chalin* assures us expressly, that many nunneries, by closing their gates, remained free from the contagion. It is worthy of note, and quite in conformity with the prevailing notions, that the continuance in a thick, moist atmosphere, was generally esteemed more advantageous and conservative, on account of its being more impenetrable to the astral influence, inasmuch as the inferior cause kept off the superior.—*Chalin*, p. 48.

arose various disputations, of weight in that age, but of none in ours; people, however, agreed in this—that conjunctions of the planets infallibly prognosticated great events; great revolutions of kingdoms, new prophets, destructive plagues, and other occurrences which bring distress and horror on mankind. No medical author of the 14th and 15th centuries omits an opportunity of representing them as among the general prognostics of great plagues; nor can we, for our parts, regard the astrology of the middle ages as a mere offspring of superstition. It has not only, in common with all ideas which inspire and guide mankind, a high historical importance, entirely independent of its error or truth—for the influence of both is equally powerful—but there are also contained in it, as in alchymy, grand thoughts of antiquity, of which modern natural philosophy is so little ashamed that she claims them as her property. Foremost among these, is the idea of the general life which diffuses itself throughout the whole universe, expressed by the greatest Greek sages, and transmitted to the middle ages, through the new Platonic natural philosophy. To this impression of an universal organism, the assumption of a reciprocal influence of terrestrial bodies could not be foreign,[1] nor did this cease to correspond with a higher view of nature, until astrologers overstepped the limits of human knowledge with frivolous and mystical calculations.

Guy de Chauliac considers the influence of the conjunction, which was held to be all-potent, as the chief general cause of the Black Plague; and the diseased state of bodies, the corruption of the fluids, debility, obstruction, and so forth, as the especial subordinate causes.[2] By these, according to his opinion, the quality of the air, and of the other elements, was so altered, that they set poisonous fluids in motion towards the inward parts of the body, in the same manner as the magnet attracts iron; whence there arose in the commencement fever and the spitting of blood; afterwards, however, a deposition in the form of glandular swellings and inflammatory boils. Herein the notion of an epidemic constitution was set forth clearly, and conformably to the spirit of the age. Of contagion, Guy de Chauliac was completely convinced. He sought to protect himself against it by the usual

[1] This was called *Affluxus*, or *Forma specifica*, and was compared to the effect of a magnet on iron, and of amber on chaff.—*Chalin de Vinario*, p. 23.

[2] Causa universalis agens—causa particularis patiens. To this correspond, in *Chalin*, the expressions Causa superior et inferior.

means;[1] and it was probably he who advised Pope Clement VI. to shut himself up while the plague lasted. The preservation of this pope's life, however, was most beneficial to the city of Avignon, for he loaded the poor with judicious acts of kindness, took care to have proper attendants provided, and paid physicians himself to afford assistance wherever human aid could avail—an advantage which, perhaps, no other city enjoyed.[2] Nor was the treatment of plague-patients in Avignon by any means objectionable; for, after the usual depletions by bleeding and aperients, where circumstances required them, they endeavoured to bring the buboes to suppuration; they made incisions into the inflammatory boils, or burned them with a red-hot iron, a practice which at all times proves salutary, and in the Black Plague saved many lives. In this city, the Jews, who lived in a state of the greatest filth, were most severely visited, as also the Spaniards, whom Chalin accuses of great intemperance.[3]

Still more distinct notions on the causes of the plague were stated to his contemporaries in the 14th century, by Galeazzo di Santa Sofia, a learned man, a native of Padua, who likewise treated plague-patients at Vienna,[4] though in what year is undetermined. He distinguishes carefully *pestilence* from *epidemy* and *endemy*. The common notion of the two first accords exactly with that of an epidemic constitution, for both consist, according to him, in an unknown change or corruption of the air; with this difference, that *pestilence* calls forth diseases of different kinds; *epidemy*, on the contrary, always the same disease. As an example of an *epidemy*, he adduces a cough (influenza) which was observed in all climates at the same time, without perceptible cause; but he recognised the approach of a *pestilence*, independently of unusual natural phenomena, by the more frequent occurrence of various kinds of fever, to which the modern physicians would assign a nervous and putrid character. The *endemy* originates, according to him, only in local telluric changes—in deleterious influences which develope themselves in the earth and in the water, without a corruption of the air. These notions were variously

[1] Purging with alöetic pills; bleeding; purification of the air by means of large fires; the use of treacle; frequent smelling to volatile substances, of which certain "poma" were prepared; the internal use of Armenian bole,—a plague-remedy derived from the Arabians, and, throughout the middle ages, much in vogue, and very improperly used; and the employment of acescent food, in order to resist putridity. *Guy de Chauliac* appears to have recommended flight to many. Loc. citat. p. 115. Compare *Chalin*, L. II., who gives most excellent precepts on this subject.

[2] *Auger. de Biterris*, loc. cit.

[3] L. I. c. 4. p. 39

[4] Fol. 32. loc. cit.

jumbled together in his time, like everything which human understanding separates by too fine a line of limitation. The estimation of cosmical influences, however, in the *epidemy* and *pestilence* is well worthy of commendation; and Santa Sofia, in this respect, not only agrees with the most intelligent persons of the 14th and 15th centuries, but he has also promulgated an opinion which must, even now, serve as a foundation for our scarcely commenced investigations into cosmical influences.[1] *Pestilence* and *epidemy* consist not in alterations of the four primary qualities,[2] but in a corruption of the air, powerful, though quite immaterial, and not cognoscible by the senses:—(corruptio aëris non substantialis, sed qualitativa) in a disproportion of the imponderables in the atmosphere, as it would be expressed by the moderns.[3] The causes of the *pestilence* and *epidemy* are, first of all, astral influences, especially on occasion of planetary conjunctions; then extensive putrefaction of animal and vegetable bodies, and terrestrial corruptions (corruptio in terra); to which also bad diet and want may contribute. Santa Sofia considers the putrefaction of locusts, that had perished in the sea and were again thrown up, combined with astral and terrestrial influences, as the cause of the pestilence in the eventful year of the "*Great Mortality.*"

All the fevers which were called forth by the *pestilence*, are, according to him, of the putrid kind; for they originate principally from putridity of the heart's blood, which inevitably follows the inhalation of infected air. The Oriental Plague is, sometimes, but by no means always, occasioned by *pestilence* (?), which imparts to it a character (qualitas occulta) hostile to human nature. It originates frequently from other causes, among which, this physician was aware that contagion was to be reckoned; and it deserves to be remarked, that he held epidemic small-pox and measles to be infallible forerunners of the plague, as do the physicians and people of the East[4] at the present day.

[1] *Galeacii de Sancta Sophia*, Liber de Febribus. Venet. 1514, fol. (Printed together with *Guillelmus Brixiensis*, *Marsilius de Sancta Sophia*, *Ricardus Parisiensis*. fol. 29. seq.)

[2] Warmth, cold, dryness, and moisture.

[3] The talented *Chalin* entertains the same conviction, "Obscurum interdum esse vitium aëris, sub pestis initia et menses primos, hoc est argumento: *quod cum nec odore tetro gravis, nec turpi colore fœdatus fuerit, sed purus, tenuis, frigidus, qualis in montosis et asperis locis esse solet, et tranquillus, vehementissima sit tamen pestilentia infestaque*," etc. p. 28. The most recent observers of malaria have stated nothing more than this.

[4] Compare *Enr. di Wolmar*, Abhandlung über die Pest. Berlin, 1827. 8vo.

In the exposition of his therapeutical views of the plague, a clearness of intellect is again shown by Santa Sofia, which reflects credit on the age. It seemed to him to depend, 1st, on an evacuation of putrid matters, by purgatives and bleeding: yet he did not sanction the employment of these means indiscriminately, and without consideration; least of all where the condition of the blood was healthy. He also declared himself decidedly against bleeding ad deliquium (venæ sectio eradicativa). 2nd, Strengthening of the heart and prevention of putrescence. 3rd, Appropriate regimen. 4th, Improvement of the air. 5th, Appropriate treatment of tumid glands and inflammatory boils, with emollient, or even stimulating poultices (mustard, lily-bulbs), as well as with red-hot gold and iron. Lastly, 6th, Attention to prominent symptoms. The stores of the Arabian pharmacy, which he brought into action to meet all these indications, were indeed very considerable; it is to be observed, however, that, for the most part, gentle means were accumulated, which, in case of abuse, would do no harm; for the character of the Arabian system of medicine, whose principles were everywhere followed at this time, was mildness and caution. On this account, too, we cannot believe that a very prolix treatise by Marsigli di Santa Sofia,[1] a contemporary relative of Galeazzo, on the prevention and treatment of plague, can have caused much harm, although, perhaps, even in the 14th century, an agreeable latitude and confident assertions respecting things which no mortal has investigated, or which it is quite a matter of indifference to distinguish, were considered as proofs of a valuable practical talent.

The agreement of contemporary and later writers, shows that the published views of the most celebrated physicians of the 14th century, were those generally adopted. Among these, Chalin de Vinario is the most experienced. Though devoted to astrology, still more than his distinguished contemporary, he acknowledges the greater power of terrestrial influences, and expresses himself very sensibly on the indisputable doctrine of contagion, endeavouring thereby to apologize for many surgeons and physicians of his time, who neglected their duty.[2] He asserted boldly, and with

[1] Tractatus de Febribus, fol. 48.

[2] De Peste Liber, pura latinitate donatus a *Jacobo Dalechampio*. Lugdun. 1552. 16. p. 40. 188. "Longe tamen plurimi congressu eorum qui fuerunt in locis pestilentibus periclitantur et gravissime, quoniam e causa duplici, nempe et aëris vitio, et eorum qui versantur nobiscum, vitio. *Hoc itaque modo fit, ut unius accessu in totam modo familiam, modo civitatem, modo villam, pestis invehatur.*" Compare p. 20, "Solæ privatorum ædes pestem sentiunt, *si adeat qui in pestilenti loco versatus est.*"—

truth, "*that all epidemic diseases might become contagious,*[1] *and all fevers epidemic,*" which attentive observers of all subsequent ages have confirmed.

He delivered his sentiments on blood-letting with sagacity, as an experienced physician; yet he was unable, as may be imagined, to moderate the desire for bleeding shown by the ignorant monks. He was averse to draw blood from the veins of patients under fourteen years of age; but counteracted inflammatory excitement in them by cupping; and endeavoured to moderate the inflammation of the tumid glands by leeches.[2] Most of those who were bled, died; he therefore reserved this remedy for the plethoric; especially for the papal courtiers, and the hypocritical priests, whom he saw gratifying their sensual desires, and imitating Epicurus, whilst they pompously pretended to follow Christ.[3] He recommended burning the boils with a red-hot iron, only in the plague without fever, which occurred in single cases;[4] and was always ready to correct those over-hasty surgeons, who, with fire and violent remedies, did irremediable injury to their patients.[5] Michael Savonarola, professor in Ferrara (1462), reasoning on the susceptibility of the human frame to the influence of pestilential infection, as the cause of such various modifications of disease, expresses himself as a modern physician would on this point; and an adoption of the principle of contagion, was the foundation of his definition of the plague.[6] No less worthy of observation are the views of the celebrated Valescus of Taranta, who, during the final visitation of the Black Death, in 1382, practised as a physician at Montpellier, and handed down to posterity what has been repeat-

"Nobis proximi ipsi sumus, nemoque est tanta occœcatus amentia, qui de sua salute potius quam aliorum sollicitus non sit, maxime in contagione tam cita et rapida." Rather a loose principle, which might greatly encourage low sentiments, and much endanger the honour of the medical profession, but which, in *Chalin*, who was aware of the impossibility of avoiding contagion in uncleanly dwellings, is so far excusable, that he did not apply it to himself.

[1] Morbos omnes pestilentes esse contagiosos, audacter ego equidem pronuntio et assevero. p. 149.

[2] Vide preceding note, pp. 162, 163.

[3] Ibid. p. 97. 166. "Qualis (vita) esse solet eorum, qui sacerdotiorum et cultus divini prætextu, genio plus satis indulgent et obsequuntur, ac Christum speciosis titulis ementientes, Epicurum imitantur." Certainly a remarkable freedom of sentiment for the 14th century.

[4] Ibid. p. 183. 151.

[5] Ibid. p. 159. 189.

[6] Canonica de Febribus, ad Raynerium Siculum, 1487, s. 1. cap. 10, sine pag. "Febris pestilentialis est febris contagiosa ex ebullitione putrefactiva in altero quatuor humorum cordi propinquorum principaliter."

ed in innumerable treatises on plague, which were written during the 15th and 16th centuries.[1]

Of all these notions and views regarding the plague, whose development we have represented, there are two especially, which are prominent in historical importance:—1st, The opinion of learned physicians, that the *pestilence*, or epidemic constitution, is the *parent of various kinds of disease;* that the plague sometimes, indeed, but by no means always, originates from it; that, to speak in the language of the moderns, *the pestilence* bears the same relation to contagion, that a predisposing cause does to an occasional cause: and 2ndly, the universal conviction of the contagious power of that disease.

Contagion gradually attracted more notice: it was thought that in it, the most powerful occasional cause might be avoided; the possibility of protecting whole cities by separation became gradually more evident; and so horrifying was the recollection of the eventful year of the "*Great Mortality*," that before the close of the 14th century, ere the ill effects of the Black Plague had ceased, nations endeavoured to guard against the return of this enemy, by an earnest and effectual defence.

The first regulation which was issued for this purpose, originated with Viscount Bernabo, and is dated the 17th Jan. 1374. "Every plague-patient was to be taken out of the city into the fields, there to die or to recover. Those who attended upon a plague-patient, were to remain apart for ten days, before they again associated with anybody. The priests were to examine the diseased, and point out to special commissioners the persons infected; under punishment of the confiscation of their goods, and of being burned alive. Whoever imported the plague, the state condemned his goods to confiscation. Finally, none, except those who were appointed for that purpose, were to attend plague-patients, under penalty of death and confiscation.[2]

These orders, in correspondence with the spirit of the 14th century, are sufficiently decided to indicate a recollection of the good effects of confinement, and of keeping at a distance those suspected of having plague. It was said that Milan itself, by a rigorous barricado of three houses in which the plague had broken out, maintained itself free from the "*Great Mortality*," for a consider-

[1] *Valesci de Tharanta*, Philonium. Lugduni, 1535. 8. L. VII. c. 18. fol. 401. b. seq. —Compare *Astruc.* Mémoires pour servir à l'Histoire de la Faculté de Médecine de Montpellier. Paris, 1767. 4. p. 208.

[2] Chronicon Regiense, *Muratori*, Tom. XVIII. p. 82.

able time;[1] and examples of the preservation of individual families, by means of a strict separation, were certainly very frequent. That these orders must have caused universal affliction from their uncommom severity, as we know to have been especially the case in the city of Reggio, may be easily conceived; but Bernabo did not suffer himself to be deterred from his purpose by fear—on the contrary, when the plague returned in the year 1383, he forbad the admission of people from infected places into his territories, on pain of death.[2] We have now, it is true, no account how far he succeeded, yet it is to be supposed that he arrested the disease, for it had long lost the property of the Black Death, to spread abroad in the air the contagious matter which proceeded from the lungs, charged with putridity, and to taint the atmosphere of whole cities by the vast numbers of the sick. Now that it had resumed its milder form, so that it infected only by contact, it admitted being confined within individual dwellings, as easily as in modern times.

Bernabo's example was imitated; nor was there any century more appropriate for recommending to governments strong regulations against the plague, than the 14th; for when it broke out in Italy, in the year 1399, and still demanded new victims, it was for the 16th time; without reckoning frequent visitations of measles and small-pox. In this same year, Viscount John, in milder terms than his predecessor, ordered that no stranger should be admitted from infected places, and that the city gates should be strictly guarded. Infected houses were to be ventilated for at least eight or ten days, and purified from noxious vapours by fires, and by fumigations with balsamic and aromatic substances. Straw, rags, and the like, were to be burned; and the bedsteads which had been used, set out for four days in the rain or the sunshine, so that, by means of the one or the other, the morbific vapour might be destroyed. No one was to venture to make use of clothes or beds out of infected dwellings, unless they had been previously washed and dried either at the fire or in the sun. People were, likewise, to avoid, as long as possible, occupying houses which had been frequented by plague-patients.[3]

We cannot precisely perceive in these an advance towards gener-

[1] *Adr. Chenot*, Hinterlassene Abhandlungen über die ärztlichen und politischen Anstalten bei der Pestseuche. Wien, 1798, 8vo. p. 146. From this period it was common in the middle ages to barricade the doors and windows of houses infected with plague, and to suffer the inhabitants to perish without mercy.—*S. Möhsen*, loc. cit.

[2] Chron. Reg. loc. cit.

[3] *Muratori*, Tom. XVI. p. 560.—Compare *Chenot*, loc. cit. p. 146.

al regulations; and perhaps people were convinced of the insurmountable impediments which opposed the separation of open inland countries, where bodies of people connected together could not be brought, even by the most obdurate severity, to renounce the habit of a profitable intercourse.

Doubtless it is nature which has done the most to banish the Oriental plague from western Europe, where the increasing cultivation of the earth, and the advancing order in civilized society, have prevented it from remaining domesticated; which it most probably was in the more ancient times.

In the 15th century, during which it broke out seventeen times in different places in Europe,[1] it was of the more consequence to oppose a barrier to its entrance from Asia, Africa, and Greece (which had become Turkish); for it would have been difficult for it to maintain itself indigenously any longer. Among the southern commercial states, however, which were called on to make the greatest exertions to this end, it was principally Venice, formerly so severely attacked by the Black Plague, that put the necessary restraint upon the perilous profits of the merchant. Until towards the end of the 15th century, the very considerable intercourse with the East was free and unimpeded. Ships of commercial cities had often brought over the plague: nay, the former irruption of the "*Great Mortality*" itself had been occasioned by navigators. For, as in the latter end of Autumn, 1347, four ships full of plague-patients returned from the Levant to Genoa, the disease spread itself there with astonishing rapidity. On this account, in the following year, the Genoese forbad the entrance of suspected ships into their port. These sailed to Pisa and other cities on the coast, where already nature had made such mighty preparations for the reception of the Black Plague, and what we have already described took place in consequence.[2]

In the year 1485, when, among the cities of northern Italy, Milan especially felt the scourge of the plague, a special council of health, consisting of three nobles, was established at Venice, who probably tried everything in their power to prevent the entrance of this disease, and gradually called into activity all those regulations which have served in later times as a pattern for the other southern states of Europe. Their endeavours were, however, not crowned with complete success; on which account their powers were increased, in the year 1504, by granting them the right of

[1] *Papon*, loc. cit.

[2] *Chenot*, p. 145.

life and death over those who violated the regulations.[1] Bills of health were probably first introduced in the year 1527, during a fatal plague[2] which visited Italy for five years (1525—30), and called forth redoubled caution.

The first lazarettos were established upon islands at some distance from the city, seemingly as early as the year 1485. Here all strangers coming from places where the existence of plague was suspected were detained. If it appeared in the city itself, the sick were despatched with their families to what was called the Old Lazaretto, were there furnished with provisions and medicines, and, when they were cured, were detained, together with all those who had had intercourse with them, still forty days longer in the New Lazaretto, situated on another island. All these regulations were every year improved, and their needful rigour was increased, so that from the year 1585 onwards, no appeal was allowed from the sentence of the Council of Health ; and the other commercial nations gradually came to the support of the Venetians, by adopting corresponding regulations.[3] Bills of health, however, were not general until the year 1665.[4]

The appointment of a forty days' detention, whence quarantines derive their name, was not dictated by caprice, but probably had a medical origin, which is derivable in part from the doctrine of critical days ; for the fortieth day, according to the most ancient notions, has been always regarded as the last of ardent diseases, and the limit of separation between these and those which are chronic. It was the custom to subject lying-in women for forty days to a more exact superintendence. There was a good deal also said in medical works of forty day epochs in the formation of the fœtus, not to mention that the alchymists expected more durable revolutions in forty days, which period they called the philosophical month.

This period being generally held to prevail in natural processes, it appeared reasonable to assume, and legally to establish it, as that required for the development of latent principles of contagion, since public regulations cannot dispense with decisions of this kind, even though they should not be wholly justified by the nature of the case. Great stress has likewise been laid on theologi-

[1] *Le Bret*, Staatsgeschichte der Republik Venedig. Riga, 1775. 4, Part II. Div. 2. p. 752.

[2] *Zagata*, Cronica di Verona, 1744. 4, III. p. 93.

[3] *Le Bret*, loc. cit. Comp. Hamburger Remarquen of the year 1700, pp. 282 and 305.

[4] Göttinger gelehrte Anzeigen, 1772, p. 22.

cal and legal grounds, which were certainly of greater weight in the fifteenth century than in modern times.[1]

On this matter, however, we cannot decide, since our only object here is to point out the origin of a political means of protection against a disease, which has been the greatest impediment to civilization within the memory of man; a means, that, like Jenner's vaccine, after the small-pox had ravaged Europe for twelve hundred years, has diminished the check which mortality puts on the progress of civilization, and thus given to the life and manners of the nations of this part of the world a new direction, the result of which we cannot foretell.

[1] The forty days' duration of the Flood, the forty days' sojourn of Moses on Mount Sinai, our Saviour's fast for the same length of time in the wilderness; lastly, what is called the Saxon term (Sächsische Frist), which lasts for forty days, &c. Compare *G. W. Wedel*, Centuria Exercitationum Medico-philologicarum. *De Quadragesima Medica.* Jenæ, 1701. 4. Dec. IV. p. 16.

APPENDIX.

I.

Das alte Geißlerlied.

NACH MASSMANN'S AUSGABE VON HERRN PROFESSOR LACHMANN MIT DER HANDSCHRIFT VERGLICHEN.

Sve siner sele wille pleghen
De sal gelden unde weder geuen
So wert siner sele raed
Des help uns leue herre goed
Nu tredet here we botsen wille
Vle wi io de hetsen helle
Lucifer is en bose geselle
Sven her hauet
Mit peke he en lauet
Datz vle wi ef wir hauen sin
Des help uns maria koninghin
Das wir dines kindes hulde win
Jesus crist de wart ke vanghen
An en cruce wart he ge hanghen
Dat cruce wart des blodes rod
Wer klaghen sin marter unde sin dod
Sunder war mide wilt tu mi lonen
Dre negele unde en dornet crone
Das cruce vrone en sper en stich
Sunder datz leyd ich dor dich
Was wltu nu liden dor mich
So rope wir herre mit luden done
Unsen denst den nem to lone
Be hode uns vor der helle nod
Des bidde wi dich dor dinen dod
Dor god vor gete wi unse blot
Dat is uns tho den suden guot
Maria muoter koninginghe
Dor dines leuen kindes minne
Al unse nod si dir ghe klaghet
Des help uns moter maghet reyne.
De erde beuet och kleuen de steyne
Lebe hertze du salt weyne

The Ancient Song of the Flagellants.

ACCORDING TO MASSMANN'S EDITION COMPARED WITH THE MS.
BY PROFESSOR LACHMANN.

(*Translation.*)

WHOE'ER to save his soul is fain,
Must pay and render back again.
His safety so shall he consult:
Help us, good Lord, to this result.
Ye that repent your crimes, draw nigh.
From the burning hell we fly,
From Satan's wicked company.
Whom he leads
With pitch he feeds.
If we be wise we this shall flee.
Maria! Queen! we trust in thee,
To move thy Son to sympathy.
Jesus Christ was captive led,
And to the cross was riveted.
The cross was reddened with his gore
And we his martyrdom deplore.
"Sinner, canst thou to me atone.
Three pointed nails, a thorny crown,
The holy cross, a spear, a wound,
These are the cruel pangs I found.
What wilt thou, sinner, bear for me?"
Lord, with loud voice we answer thee,
Accept our service in return,
And save us lest in hell we burn.
We, through thy death, to thee have sued.
For God in heaven we shed our blood:
This for our sins will work to good.
Blessed Maria! Mother! Queen!
Through thy loved Son's redeeming mean
Be all our wants to thee pourtrayed.
Aid us, Mother! spotless maid!
Trembles the earth, the rocks are rent,[1]
Fond heart of mine, thou must relent.

[1] We hence perceive with what feelings subterraneous thunders were regarded by the people.

Wir wenen trene mit den oghen
Unde hebben des so guden louen
Mit unsen sinnen unde mit hertzen
Dor uns leyd crist vil manighen smertzen
Nu slaed w sere
Dor cristus ere.
Dor god nu latet de sunde mere
Dor god nu latet de sunde varen
Se wil sich god ouer uns en barmen
Maria stund in grotzen noden
Do se ire leue kint sa doden
En svert dor ire sele snet
Sunder dat la di wesen led
In korter vrist
God tornich ist
Jesus wart gelauet mid gallen
Des sole wi an en cruce vallen
Er heuet uch mit uwen armen
Dat sic god ouer uns en barme
Jesus dorch dine namen dry
Nu make uns hir van sunde vry
Jesus dor dine wnden rod
Be hod uns vor den gehen dod
Dat he sende sinen geist
Und uns dat kortelike leist
De vrowe unde man ir e tobreken
Dat wil god selven an en wreken
Sveuel pik und och de galle
Dat gutet de duuel in se alle
Vor war sint se des duuels spot
Dor vor behode uns herre god
De e de ist en reyne leuen
De had uns god selven gheuen
Ich rade uch vrowen unde mannen
Dor god gy solen houard annen
Des biddet uch de arme sele
Dorch god nu latet houard mere
Dor god nu latet houard varen
So wil sich god ouer uns en barmen
Cristus rep in hemelrike
Sinen engelen al gelike.
De cristenheit wil mi ent wichen
Des wil lan och se vor gaen

Tears from our sorrowing eyes we weep;
Therefore so firm our faith we keep
With all our hearts—with all our senses.
Christ bore his pangs for our offences.
Ply well the scourge for Jesus' sake,
And God through Christ your sins shall take.
For love of God abandon sin,
To mend your vicious lives begin,
So shall we his mercy win.
Direful was Maria's pain
When she beheld her dear One slain.
Pierced was her soul as with a dart:
Sinner, let this affect thy heart.
The time draws near
When God in anger shall appear.
Jesus was refreshed with gall:
Prostrate crosswise let us fall,
Then with uplifted arms arise,
That God with us may sympathize.
Jesus, by thy titles three,[1]
From our bondage set us free.
Jesus, by thy precious blood,
Save us from the fiery flood.
Lord, our helplessness defend,
And to our aid thy Spirit send.
If man and wife their vows should break
God will on such his vengeance wreak.
Brimstone and pitch, and mingled gall,
Satan pours on such sinners all.
Truly, the devil's scorn are they:
Therefore, O Lord, thine aid we pray.
Wedlock's an honourable tie
Which God himself doth sanctify.
By this warning, man, abide,
God shall surely punish pride.
Let your precious soul entreat you,
Lay down pride lest vengeance meet you.
I do beseech ye, pride forsake,
So God on us shall pity take.
Christ in heaven, where he comm ands,
Thus addressed his angel bands:—
"Christendom dishonours me,
Therefore her ruin I decree."

[1] For the sake of thy Trinity.

Marie bat ire kint so sere
Leue kint la se di boten
Dat wil ich sceppen dat se moten
Bekeren sich.
Des bidde ich dich
Gi logenere
Gy meynen ed sverer
Gi bichten reyne und lan de sunde uch ruwen
So wil sich god in uch vor nuwen
Owe du arme wokerere
Du bringest en lod up en punt
Dat senket din an der helle grunt
Ir morder und ir straten rouere
Ir sint dem leuen gode un mere
Ir ne wilt uch ouer nemende barmen
Des sin gy eweliken vor loren
Were dusse bote nicht ge worden
De cristenheit wer gar vorsunden
De leyde duuel had se ge bunden
Maria had lost unsen bant
Sunder ich saghe di leue mere
Sunte peter is portenere
Wende dich an en he letset dich in
He bringhet dich vor de koninghin
Leue herre sunte Michahel
Du bist en plegher aller sel
Be hode uns vor der helle nod
Dat do dor dines sceppers dod.

Then Mary thus implored her Son :—
"Penance to thee, loved Child, be done;
That she repent be mine the care;
Stay then thy wrath, and hear my prayer."
Ye liars!
Ye that break your sacrament,
Shrive ye throughly and repent.
Your heinous sins sincerely rue,
So shall the Lord your hearts renew.
Woe! usurer, though thy wealth abound,
For every ounce thou mak'st a pound
Shall sink thee to the hell profound.
Ye murd'rers, and ye robbers all,
The wrath of God on you shall fall.
Mercy ye ne'er to others show,
None shall ye find; but endless woe.
Had it not been for our contrition,
All Christendom had met perdition.
Satan had bound her in his chain;
Mary hath loosed her bonds again.
Glad news I bring thee, sinful mortal,
In heaven Saint Peter keeps the portal,
Apply to him with suppliant mien,
He bringeth thee before thy Queen.
Benignant Michael, blessed saint,
Guardian of souls, receive our plaint.
Through thy Almighty Maker's death,
Preserve us from the hell beneath.

II.

Examination of the Jews accused of poisoning the Wells.[1]

Answer from the Castellan of Chillon to the City of Strasburg, together with a Copy of the Inquisition and Confession of several Jews confined in the Castle of Chillon on suspicion of poisoning. Anno 1348.

To the Honourable the Mayor, Senate, and Citizens of the City of Strasburg, the Castellan of Chillon, Deputy of the Bailiff of Chablais, sendeth greeting with all due submission and respect.

Understanding that you desire to be made acquainted with the confession of the Jews, and the proofs brought forward against them, I certify, by these presents, to you, and each of you that desires to be informed, that they of Berne have had a copy of the inquisition and confession of the Jews who lately resided in the places specified, and who were accused of putting poison into the wells and several other places: as also the most conclusive evidence of the truth of the charge preferred against them. Many Jews were put to the question, others being excused from it, because they confessed, and were brought to trial and burnt. Several Christians, also, who had poison given them by the Jews for the purpose of destroying the Christians, were put on the wheel and tortured. This burning of the Jews and torturing of the said Christians took place in many parts of the county of Savoy.

Fare you well.

The Confession made on the 15*th day of September, in the year of our Lord* 1348, *in the Castle of Chillon, by the Jews arrested in Neustadt, on the charge of Poisoning the Wells, Springs, and other places; also Food, &c., with the design of destroying and extirpating all Christians.*

I. Balavignus, a Jewish physician, inhabitant of Thonon, was arrested at Chillon in consequence of being found in the neighbour-

[1] An appearance of justice having been given to all later persecutions by these proceedings, they deserve to be recorded as important historical documents. The original is in Latin, but we have preferred the German translation in Königshoven's Chronicle, p. 1029.

hood. He was put for a short time to the rack, and on being taken down, confessed, after much hesitation, that, about ten weeks before, the Rabbi Jacob of Toledo, who, because of a citation, had resided at Chamberi since Easter, sent him, by a Jewish boy, some poison in the mummy of an egg: it was a powder sewed up in a thin leathern pouch accompanied by a letter, commanding him on penalty of excommunication, and by his required obedience to the law, to throw this poison into the larger and more frequented wells of the town of Thonon, to poison those who drew water there. He was further enjoined not to communicate the circumstance to any person whatever, under the same penalty. In conformity with this command of the Jewish rabbis and doctors of the law, he, Balavignus, distributed the poison in several places, and acknowledged having one evening placed a certain portion under a stone in a spring on the shore at Thonon. He further confessed that the said boy brought various letters of a similar import, addressed to others of his nation, and particularly specified some directed severally to Mossoiet, Banditon, and Samoleto of Neustadt; to Musseo Abramo and Aquetus of Montreantz, Jews residing at Thurn in Vivey; to Benetonus and his son at St. Moritz; to Vivianus Jacobus, Aquetus and Sonetus, Jews at Aquani.—Several letters of a like nature were sent to Abram and Musset, Jews at Moncheoli; and the boy told him that he had taken many others to different and distant places, but he did not recollect to whom they were addressed. Balavignus further confessed that, after having put the poison into the spring at Thonon, he had positively forbidden his wife and children to drink the water, but had not thought fit to assign a reason. He avowed the truth of this statement, and, in the presence of several credible witnesses, swore by his Law, and the Five Books of Moses, to every item of his deposition.

On the day following, Balavignus, voluntarily and without torture, ratified the above confession verbatim before many persons of character, and, of his own accord, acknowledged that, on returning one day from Tour near Vivey, he had thrown into a well below Mustruez, namely, that of La Conerayde, a quantity of the poison tied up in a rag, given to him for the purpose by Aquetus of Montreantz, an inhabitant of the said Tour: that he had acquainted Manssiono, and his son Delosaz, residents of Neustadt, with the circumstance of his having done so, and advertised them not to drink of the water. He described the colour of the poison as being red and black.

On the nineteenth day of September, the above-named Balavignus confessed, without torture, that about three weeks after Whitsuntide, a Jew named Mussus told him that he had thrown poison into the well, in the custom-house of that place, the property of the Borneller family; and that he no longer drank the water of this well, but that of the lake. He further deposed that Mussus informed him that he had also laid some of the poison under the stones in the custom-house at Chillon.

Search was accordingly made in this well, and the poison found: some of it was given to a Jew by way of trial, and he died in consequence. He also stated that the rabbis had ordered him and other Jews to refrain from drinking of the water for nine days after the poison was infused into it; and immediately on having poisoned the waters, he communicated the circumstance to the other Jews. He, Balavignus, confessed that about two months previously, being at Evian, he had some conversation on the subject with a Jew called Jacob, and among other things, asked him whether he also had received writings and poison, and was answered in the affirmative; he then questioned him whether he had obeyed the command, and Jacob replied that he had not, but had given the poison to Savetus, a Jew, who had thrown it into the well de Morer at Evian. Jacob also desired him, Balavignus, to execute the command imposed on him with due caution. He confessed that Aquetus of Montreantz had informed him that he had thrown some of the poison into the well above Tour, the water of which he sometimes drank. He confessed that Samolet had told him that he had laid the poison which he had received in a well, which, however, he refused to name to him. Balavignus, as a physician, further deposed that a person infected by such poison coming in contact with another while in a state of perspiration, infection would be the almost inevitable result; as might also happen from the breath of an infected person. This fact he believed to be correct, and was confirmed in his opinion by the attestation of many experienced physicians. He also declared that none of his community could exculpate themselves from this accusation, as the plot was communicated to all; and that all were guilty of the above charges. Balavignus was conveyed over the lake from Chillon to Clarens, to point out the well into which he confessed having thrown the powder. On landing, he was conducted to the spot; and, having seen the well, acknowledged that to be the place, saying, "This is the well into which I put the poison." The well was examined in his presence, and the linen cloth in which the poison had been wrapped was found in the waste-pipe by a notary-public named Heinrich Gerhard, in the presence of many persons, and was shown to the said Jew. He acknowledged this to be the linen which had contained the poison, which he described as being of two colours, red and black, but said that he had thrown it into the open well. The linen cloth was taken away and is preserved.

Balavignus, in conclusion, attests the truth of all and everything as above related. He believes this poison to contain a portion of the basilisk, because he had heard, and felt assured, that the above poison could not be prepared without it.

II. Banditono, a Jew of Neustadt, was, on the fifteenth day of September, subjected for a short time to the torture. After a long interval,

he confessed having cast a quantity of poison, about the size of a large nut, given him by Musseus, a Jew, at Tour, near Vivey, into the well of Carutet, in order to poison those who drank of it.

The following day, Banditono, voluntarily and without torture, attested the truth of the aforesaid deposition; and also confessed that the Rabbi Jacob von Pasche, who came from Toledo and had settled at Chamberi, sent him, at Pilliex, by a Jewish servant, some poison about the size of a large nut, together with a letter, directing him to throw the powder into the wells on pain of excommunication. He had therefore thrown the poison, which was sewn up in a leathern bag, into the well of Cercliti de Roch; further, also, that he saw many other letters in the hands of the servant addressed to different Jews; that he had also seen the said servant deliver one, on the outside of the upper gate, to Samuletus, the Jew, at Neustadt. He stated, also, that the Jew, Massolet, had informed him that he had put poison into the well near the bridge at Vivey.

III. The said Manssiono, Jew of Neustadt, was put upon the rack on the fifteenth day of the same month, but refused to admit the above charge, protesting his entire ignorance of the whole matter; but the day following, he, voluntarily and without any torture, confessed, in the presence of many persons, that he came from Mancheolo one day in last Whitsun-week, in company with a Jew named Provenzal, and, on reaching the well of Chabloz Crüez between Vyona and Mura, the latter said, "You must put some of the poison which I will give you into that well, or woe betide you!" He therefore took a portion of the powder about the bigness of a nut, and did as he was directed. He believed that the Jews in the neighbourhood of Evian had convened a council among themselves relative to this plot, before Whitsuntide. He further said that Balavignus had informed him of his having poisoned the well de la Conerayde below Mustruez. He also affirmed his conviction of the culpability of the Jews in this affair, stating that they were fully acquainted with all the particulars, and guilty of the alleged crime.

On the third day of the October following, Manssiono was brought before the commissioners, and did not in the least vary from his former deposition, or deny having put the poison into the said wells.

The above-named Jews, prior to their execution, solemnly swore by their Law to the truth of their several depositions, and declared that all Jews whatsoever, from seven years old and upwards, could not be exempted from the charge of guilt, as all of them were acquainted with the plot, and more or less participators in the crime.

[*The seven other examinations scarcely differ from the above, except in the names of the accused, and afford but little variety. We will, therefore, only add a characteristic passage at the conclusion of this document. The whole speaks for itself.*]

There still remain numerous proofs and accusations against the above-mentioned Jews: also against Jews and Christians in different parts of the county of Savoy, who have already received the punishment due to their heinous crime; which, however, I have not at hand, and cannot therefore send you. I must add, that all the Jews of Neustadt were burnt according to the just sentence of the law. At Augst, I was present when three Christians were flayed on account of being accessory to the plot of poisoning. Very many Christians were arrested for this crime in various places in this country, especially at Evian, Gebenne, Krusilien, and Hochstett, who at last and in their dying moments were brought to confess and acknowledge that they had received the poison from the Jews. Of these Christians some have been quartered; others flayed and afterwards hanged. Certain commissioners have been appointed by the magistrates to enforce judgment against all the Jews; and I believe that none will escape.

PREFACE.

THE diseases which form the subject of the present investigation afford a deep insight into the works of the human mind in a state of Society. They are a portion of history, and will never return in the form in which they are there recorded; but they expose a vulnerable part of man—the instinct of imitation—and are therefore very nearly connected with human life in the aggregate. It appeared worth while to describe diseases which are propagated on the beams of light—on the wings of thought; which convulse the mind by the excitement of the senses, and wonderfully affect the nerves, the media of its will and of its feelings. It seemed worth while to attempt to place these disorders between the epidemics of a less refined origin, which affect the body more than the soul, and all those passions and emotions which border on the vast domain of disease, ready at every moment to pass the boundary. Should we be able to deduce from the grave facts of history here developed, a convincing proof that the human race, amidst the creation which surrounds it, moves in body and soul as an individual whole, the Author might hope that he had approached nearer to his ideal of a grand comprehension of diseases in time and space, and be encouraged, by the co-operation of contemporaries, zealous in the search of truth, to proceed along the path which he has already entered, in prosecuting the investigation.

TRANSLATOR'S PREFACE.

Dr. Hecker's account of the "Black Death" having, in its English translation, met with a favourable reception, I am led to believe that the "Dancing Mania," a similar production by the same able writer, will also prove acceptable. Should this be the case, it is my intention to complete the series by translating the history of the "Sweating Sickness," the only remaining epidemic considered by our author to belong to the Middle Ages.

The mind and the body reciprocally and mysteriously affect each other, and the maladies which are the subject of these pages, are so intimately connected with the disordered state of both, that it is often difficult to determine on which they more essentially depend, or which they more seriously influence.

The physician will probably be led by their contemplation to admit that the imagination has a larger share in the production of disease than he might, without a knowledge of the striking facts here recorded, have supposed to be within the limits of possibility. He has, no doubt, already observed, that joy will affect the circulation, grief the digestion; that anger will heat the frame as perniciously as ardent spirits, and that fear will chill it as certainly as ice; but he may not have carried his observation to the extent of perceiving, that not only single and transient effects, but specific diseases are produced through the agency of mental impressions, and he may therefore still be surprised to find that the dances of St. John and of St. Vitus, as they formerly spread by sympathy from city to city, gave rise to the same deviations from bodily health, in all the individuals whom they attacked; that Tarantism was the same disease, whether medically or morally considered, all over Italy; and that the "Lycanthropia" of the past, and the "Leaping Ague" of the present times, have each its respective train of peculiar symptoms.

The moralist will view these records of human frailty in a different light; he will examine the state of society which favoured the propagation of such maladies; he will inquire how far they have been the offspring of the ages in which they appeared, and although he may not be disposed to think with our author, that they can never return, he will at least deduce from the facts here laid before him, that they originate in those minds, whether ignorant or ill-educated, in which the imagination is permitted to usurp the power of sober sense, and the ideal is allowed to occupy the thoughts to the exclusion of the substantial.

That such minds are most frequently to be met with in an age of ignorance, we should naturally suppose, and we are borne out in that supposition by the fact, that these diseases have been declining in proportion to the advance of knowledge; but credulity and enthusiasm are not incompatible with a high degree of civilization; and if, among the educated classes, the female sex is more sentimental than the male, and the affluent are more credulous than those who are dependent on their own exertions for their support, it is to be accounted for by the fact, that they usually devote more leisure to the pleasurable contemplation of works of imagination, and are less imperatively called on to improve their judgment by the dry study of facts, and the experience acquired in the serious business of life. But there is no class, even in this age of boasted reason, wholly exempt from the baneful influence of fanaticism; and instances are not wanting, in our own days, and in this very capital, to prove, that disorders (how can we more charitably designate them?) much resembling some of those described in the following pages, may make their appearance among people who have had all the advantages of an enlightened education, and every opportunity of enlarging their minds by a free intercourse with refined society.

I thus venture to hope, that by bestowing a leisure hour on this small portion of medical history, the physician may enlarge his knowledge of disease, and the moralist may gather a hint for the intellectual improvement of his fellow-men. The author has, however, a more extended object in view—the histories of particular epidemics are with him but the data from which we are to deduce the general laws that govern human health in the aggregate. Whether there be such an *entity* as collective organic life, and whether, as a consequence, there exist general laws which regulate its healthy or morbid condition, I do not here undertake to determine; but the notion is peculiar, and in order that it may be more

fully exposed to the reader, I have translated, as an introduction to the present volume,[1] an Appeal which Dr. Hecker has made to the medical profession of his own country for assistance in his undertaking. If, in the course of the remarks contained in this address, he has been somewhat severe in his censure of the neglect, both in this country and in France, of the study of Medical History, I freely confess myself to be one of those who are more anxious to profit by his castigation than to dispute its justice.

I have added a few Notes, which I trust will be found not inapplicable. They consist chiefly of parallel accounts in illustration of what is set forth in the text; and with the same view, I have thrown together in No. V. of the Appendix, some Histories of Local Epidemics, and have referred to some single cases, which seem to me to have a peculiar interest in connexion with the subject of this work, and to render it, on the whole, more complete.

[1] By this term the reader is now to understand the "Epidemics of the Middle Ages." This work not having been published, as a whole, in the original, there is no general preface by the Author. His Address to the Physicians of Germany is therefore prefixed as an appropriate substitute.

THE DANCING MANIA.

THE DANCING MANIA.

CHAPTER I.

THE DANCING MANIA IN GERMANY AND THE NETHERLANDS.

Sect. 1.—St. John's Dance.

The effects of the *Black Death* had not yet subsided, and the graves of millions of its victims were scarcely closed, when a strange delusion arose in Germany, which took possession of the minds of men, and, in spite of the divinity of our nature, hurried away body and soul into the magic circle of hellish superstition. It was a convulsion which in the most extraordinary manner infuriated the human frame, and excited the astonishment of contemporaries for more than two centuries, since which time it has never reappeared. It was called the dance of St. John or of St. Vitus, on account of the Bacchantic leaps by which it was characterized, and which gave to those affected, whilst performing their wild dance, and screaming and foaming with fury, all the appearance of persons possessed. It did not remain confined to particular localities, but was propagated by the sight of the sufferers, like a demoniacal epidemic, over the whole of Germany and the neighbouring countries to the north-west, which were already prepared for its reception by the prevailing opinions of the times.

So early as the year 1374, assemblages of men and women were seen at Aix-la-Chapelle who had come out of Germany, and who, united by one common delusion, exhibited to the public both in the streets and in the churches the following strange spectacle.[1] They formed circles hand in hand, and appearing to have lost all control over their senses, continued dancing, regardless of the bystanders, for hours together in wild delirium, until at length they

[1] *Odor. Raynald.* Annal. Ecclesiastic. A. 1374. Lucæ, 1752. fol. Tom. VII. p. 252.

fell to the ground in a state of exhaustion. They then complained of extreme oppression, and groaned as if in the agonies of death, until they were swathed in cloths bound tightly round their waists, upon which they again recovered, and remained free from complaint until the next attack. This practice of swathing was resorted to on account of the tympany which followed these spasmodic ravings, but the by-standers frequently relieved patients in a less artificial manner, by thumping and trampling upon the parts affected. While dancing they neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits whose names[1] they shrieked out; and some of them afterwards asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high.[2] Others, during the paroxysm, saw the heavens open and the Saviour enthroned with the Virgin Mary, according as the religious notions of the age were strangely and variously reflected in their imaginations.[3]

Where the disease was completely developed, the attack commenced with epileptic convulsions.[4] Those affected fell to the ground senseless, panting and labouring for breath. They foamed at the mouth, and suddenly springing up began their dance amidst strange contortions. Yet the malady doubtless made its appearance very variously, and was modified by temporary or local circumstances, whereof non-medical contemporaries but imperfectly noted the essential particulars, accustomed as they were to confound their observation of natural events with their notions of the world of spirits.

It was but a few months ere this demoniacal disease had spread from Aix-la-Chapelle, where it appeared in July, over the neighbouring Netherlands.[5] In Liege, Utrecht, Tongres, and many

[1] *Joh. Wier's* ample Catalogue of Spirits gives no information on this point. Pseudomonarchia dæmonum. Opera omnia, Amstelod. 1660. 4to. p. 659.—*Raynald* mentions the word *Friscke*s as the name of a spirit; but this mistake is easily accounted for by his ignorance of the language; for, according to the Chronicle of Cologne, the St. John's dancers sang during their paroxysm: "Here Sent Johan. so so, *vrisch* ind vro, here Sent Johan." St. John so, so, brisk and cheerful, St. John. Die Cronica van der hilliger Stat van Coellen, fol. 277. Coellen, 1499. fol.

[2] *Cyr. Spangenberg*, Adels-Spiegel—*Mirror of Nobility*, a detailed historical account of what nobility is, &c. Schmalkalden, 1591. fol. Fol. 403. b.

[3] *Petr. de Herentals*, Appendix, No. I.

[4] *Jo. Trithem.* Chronic. Sponheimense. A. 1374. Opera historic. Francof. 1601. fol. p. 332. Also: *Abrah. Bzovii* Annal. Ecclesiastic. Tom. XIV. Colon. Agripp. 1625. fol. Ann. 1374. (Maniaca passio. S. Johannis chorea.)

[5] *Jo. Pistorii* Rerum Familiarumque Belgicarum Chronicon magnum. Francof. 1654.

other towns of Belgium, the dancers appeared with garlands in their hair, and their waists girt with cloths, that they might, as soon as the paroxysm was over, receive immediate relief on the attack of the tympany. This bandage was, by the insertion of a stick, easily twisted tight: many, however, obtained more relief from kicks and blows, which they found numbers of persons ready to administer; for, wherever the dancers appeared, the people assembled in crowds to gratify their curiosity with the frightful spectacle. At length the increasing number of the affected excited no less anxiety than the attention that was paid to them. In towns and villages they took possession of the religious houses, processions were everywhere instituted on their account, and masses were said and hymns were sung, while the disease itself, of the demoniacal origin of which no one entertained the least doubt, excited everywhere astonishment and horror. In Liege the priests had recourse to exorcisms, and endeavoured, by every means in their power, to allay an evil which threatened so much danger to themselves; for the possessed assembling in multitudes, frequently poured forth imprecations against them, and menaced their destruction. They intimidated the people also to such a degree that there was an express ordinance issued that no one should make any but square-toed shoes, because these fanatics had manifested a morbid dislike to the pointed shoes which had come into fashion immediately after the *Great Mortality*, in 1350.[1] They were still more irritated at the sight of red colours, the influence of which on the disordered nerves might lead us to imagine an extraordinary accordance between this spasmodic malady and the condition of infuriated animals; but in the St. John's dancers this excitement was probably connected with apparitions consequent upon their

fol. p. 319. Here the persons affected are called *dansatores*, *chorisantes*. See the whole passage in the Appendix, No. II. Compare Incerti auctoris vetus chronicon Belgicum, Matthæi veteris ævi Analecta. Hag. com. 1738. 4to. Tom. I. p. 51. "Anno MCCCLXXIV. the *dansers* appeared. Gens impacata cadit, dudum cruciata salvat." This should be salivat; a quotation from a Latin poem not now extant.

[1] The Limburg Chronicle, published by *C. D. Vogel*, Marburg, 1828. 8vo. p. 27. This singular phenomenon cannot but remind us of the "Demon of Fashion," of the middle ages. Extravagant as the love of dress was after the middle of the fourteenth century, the opposition of the enemies of fashion was equally great, and they let slip no opportunity of crying down every change or innovation as the work of the devil. Hence it is extremely probable that the fanatic penitential sermons of zealous priests excited this singular aversion of the St. Vitus dancers. In later times, also, signs and wonders took place, on account of things equally insignificant, and the fury of the possessed was directed against the fashions. Compare *Möhsen's* History of the Sciences in the Mark of Brandenburg, p. 498. f.

convulsions. There were likewise some of them who were unable to endure the sight of persons weeping.[1] The clergy seemed to become daily more and more confirmed in their belief that those who were affected were a kind of sectarians, and on this account they hastened their exorcisms as much as possible, in order that the evil might not spread amongst the higher classes, for hitherto scarcely any but the poor had been attacked, and the few people of respectability among the laity and clergy who were to be found among them, were persons whose natural frivolity was unable to withstand the excitement of novelty, even though it proceeded from a demoniacal influence. Some of the affected had indeed themselves declared, when under the influence of priestly forms of exorcism, that if the demons had been allowed only a few weeks more time, they would have entered the bodies of the nobility and princes, and through these have destroyed the clergy. Assertions of this sort, which those possessed uttered whilst in a state which may be compared with that of magnetic sleep, obtained general belief, and passed from mouth to mouth with wonderful additions. The priesthood were, on this account, so much the more zealous in their endeavours to anticipate every dangerous excitement of the people, as if the existing order of things could have been seriously threatened by such incoherent ravings. Their exertions were effectual, for exorcism was a powerful remedy in the fourteenth century; or it might perhaps be that this wild infatuation terminated in consequence of the exhaustion which naturally ensued from it; at all events, in the course of ten or eleven months the St. John's dancers were no longer to be found in any of the cities of Belgium. The evil, however, was too deeply rooted to give way altogether to such feeble attacks.[2]

A few months after this dancing malady had made its appearance at Aix-la-Chapelle, it broke out at Cologne, where the number of those possessed amounted to more than five hundred,[3] and about the same tine at Metz, the streets of which place are said to have been filled with eleven hundred dancers.[4] Peasants left their ploughs, mechanics their workshops, housewives their domestic duties, to join the wild revels, and this rich commercial city be-

[1] *Petr. de Herentals.* Appendix, No. I.

[2] Respecting the exorcisms used, see E. G. *Förstemann*, the Christian Societies of Flagellants. Halle, 1828. 8vo. p. 232.

[3] Limburg Chronicle, p. 71. Cologne Chronicle, loc. cit. See Appendix, Nos. III. and IV.

[4] Dans la ville y eut des dansans, tant grands que petits, onze cents. Journal de Paris, 1785.

came the scene of the most ruinous disorder. Secret desires were excited, and but too often found opportunities for wild enjoyment; and numerous beggars, stimulated by vice and misery, availed themselves of this new complaint to gain a temporary livelihood. Girls and boys quitted their parents, and servants their masters, to amuse themselves at the dances of those possessed, and greedily imbibed the poison of mental infection. Above a hundred unmarried women were seen raving about in consecrated and unconsecrated places, and the consequences were soon perceived.[1] Gangs of idle vagabonds, who understood how to imitate to the life the gestures and convulsions of those really affected, roved from place to place seeking maintenance and adventures, and thus, wherever they went, spreading this disgusting spasmodic disease like a plague; for in maladies of this kind the susceptible are infected as easily by the appearance as by the reality. At last it was found necessary to drive away these mischievous guests, who were equally inaccessible to the exorcisms of the priests and the remedies of the physicians. It was not, however, until after four months that the Rhenish cities were able to suppress these impostures, which had so alarmingly increased the original evil. In the mean time, when once called into existence, the plague crept on, and found abundant food in the tone of thought which prevailed in the fourteenth and fifteenth centuries, and even, though in a minor degree, throughout the sixteenth and seventeenth, causing a permanent disorder of the mind, and exhibiting, in those cities to whose inhabitants it was a novelty, scenes as strange as they were detestable.

Sect. 2.—St. Vitus's Dance.[2]

Strasburg was visited by the "Dancing Plague" in the year 1418, and the same infatuation existed among the people there,

[1] *Schenk.* v. *Grafenburg.* loc. cit.

[2] "Chorus Sancti Viti, or St. Vitus' Dance; the lascivious dance, Paracelsus calls it, because they that are taken with it, can do nothing but dance till they be dead, or cured. It is so called for that the parties so troubled were wont to go to St. Vitus for help; and, after they had danced there awhile, they were certainly freed. 'Tis strange to hear how long they will dance, and in what manner, over stools, forms, tables; even great-bellied women sometimes (and yet never hurt their children) will dance so long that they can stir neither hand nor foot, but seem to be quite dead. One in red clothes they cannot abide. Musick above all things they love; and therefore magistrates in Germany will hire musicians to play to them, and some lusty, sturdy companions to dance with them. This disease hath been very common in Germany, as appears by those relations of Schenkius, and Paracelsus in his book of madness, who brags how many several persons he hath cured of it. Felix Platerus (*de Mentis Alienat.* cap. 3.)

as in the towns of Belgium and the Lower Rhine.[1] Many who were seized at the sight of those affected, excited attention at first by their confused and absurd behaviour, and then by their constantly following the swarms of dancers. These were seen day and night passing through the streets, accompanied by musicians playing on bagpipes, and by innumerable spectators attracted by curiosity, to which were added anxious parents and relations, who came to look after those among the misguided multitude who belonged to their respective families. Imposture and profligacy played their part in this city also, but the morbid delusion itself seems to have predominated. On this account religion could only bring provisional aid, and therefore the town-council benevolently took an interest in the afflicted. They divided them into separate parties, to each of which they appointed responsible superintendents to protect them from harm, and perhaps also to restrain their turbulence. They were thus conducted on foot and in carriages to the chapels of St. Vitus, near Zabern and Rotestein, where priests were in attendance to work upon their misguided minds by masses and other religious ceremonies. After divine worship was completed, they were led in solemn procession to the altar, where they made some small offering of alms, and where it is probable that many were, through the influence of devotion and the sanctity of the place, cured of this lamentable aberration. It is worthy of observation, at all events, that the Dancing Mania did not recommence at the altars of the saint, and that from him alone assistance was implored, and through his miraculous interposition a cure was expected, which was be-

reports of a woman in Basle whom he saw, that danced a whole month together. The Arabians call it a kind of *palsie*. Bodine, in his fifth book, de Repub. cap. 1. speaks of this infirmity; Monavius, in his last epistle to Scoltizius, and in another to Dudithus, where you may read more of it."—*Burton's Anatomy of Melancholy*, Vol. I. p. 15.—*Transl. note.*

[1] *J. of Königshoven*, the oldest German Chronicle in existence. The contents are general, but devoted more exclusively to Alsace and Strasburg, published by *Schiltern*, Strasburg, 1698. 4to. Observat. 21, of St. Vitus's Dance, p. 1085. f.

"*Viel hundert* fingen zu Strassburg an
Zu tanzen und springen Frau und Mann,
Am offnen Markt, Gassen und Strassen
Tag und Nacht ihrer viel nicht assen.
Bis ihn das Wüthen wieder gelag.
St. Vits Tanz ward genannt die Plag."

"Many hundreds of men and women began to dance and jump in the public market-place, the lanes, and the streets of Strasburg. Many of them ate nothing for days and nights, until their mania again subsided. The plague was called St. Vitus's Dance."

yond the reach of human skill. The personal history of St. Vitus is by no means unimportant in this matter. He was a Sicilian youth, who, together with Modestus and Crescentia, suffered martyrdom at the time of the persecution of the Christians, under Diocletian, in the year 303.[1] The legends respecting him are obscure, and he would certainly have been passed over without notice among the innumerable apocryphal martyrs of the first centuries, had not the transfer of his body to St. Denys, and thence, in the year 836, to Corvey, raised him to a higher rank. From this time forth, it may be supposed that many miracles were manifested at his new sepulchre, which were of essential service in confirming the Roman faith among the Germans, and St. Vitus was soon ranked among the fourteen saintly helpers (Nothhelfer or Apotheker).[2] His altars were multiplied, and the

[1] *Cæs. Baron.* Annales ecclesiastic. Tom. II. p. 819. Colon. Agripp. 1609. fol. See the more ample Acta Sanctorum Junii (The 15th of June is St. Vitus's day), Tom. II. p. 1013. Antwerp. 1698. fol. From which we shall merely add that Mazara, in Sicily, is supposed to have been the birth-place of our Saint, and that his father's name was *Hylas;* that he went from thence with *Crescentia* (probably his nurse) and *Modestus* to Lucania, with both of whom he suffered martyrdom under *Diocletian.* They are all said to have been buried at Florence, and it was not long before the miraculous powers of St. Vitus, which had already manifested themselves in his lifetime, were acknowledged throughout Italy. The most celebrated of his chapels were situated on the Promontory of Sicily (called by his name), in Rome and in Polignano, whither many pilgrimages were made by the sick. Persons who had been bitten by mad dogs believed that they would find an infallible cure at his altars, though the power of the Saint in curing wounds of this kind was afterwards disputed by the followers of St. Hubertus, the Saint of the Chase. In 672, his body was with much pomp moved to Apulia, but soon after the priests of many churches and chapels in Italy, gave out that they were in possession of portions of the saint's body which worked miracles. In the eighth century the veneration of this youthful martyr extended itself to France, and the honour of possessing his body was conferred on the church of St. Denys. By command of the Pope it was solemnly delivered on the 19th of March, 836, by the Abbot *Hilduwinus,* of St. Denys, to the Abbot *Warinus,* of Corvey (founded in 822). On its way thither, which occupied three months (to the 13th of June), many miracles were performed, and the subsequent Abbots of Corvey were able for centuries to maintain the popular belief in the miraculous healing power of their relics, which had indiscriminate influence on all diseases, more especially on those of a demoniacal kind. See Monachi anonymi Historia translationis S. Viti. In *G. H. Pertz,* Monumenta Germaniæ Historica. Tom. II. Hannov. 1828. fol. p. 576. As a proof of the great veneration for St. Vitus in the fourteenth century, we may further mention that Charles IV. dedicated to him the Cathedral of Prague, of which he had laid the foundation, and caused him to be proclaimed patron Saint of Bohemia, and a nominal body of the holy martyr was, for this purpose, brought from Parma. Act. Sanctor. loc. cit.

[2] Probably a corruption of Apotropæi. The expression is constantly met with; for example, in *Agricola,* Proverbs, No. 497. These are the θεοὶ ἀλεξικάκοι, the dii averrunci of the ancients. The fourteen saints, to whose churches (between Bamberg and Coburg) thousands still annually make pilgrimages, are the following: 1. Georgius. 2. Blasius. 3. Erasmus. 4. Vitus. 5. Pantaleon. 6. Christophorus. 7. Dionysius.

people had recourse to them in all kinds of distresses, and revered him as a powerful intercessor. As the worship of these saints was however at that time stripped of all historical connexions, which were purposely obliterated by the priesthood, a legend was invented at the beginning of the fifteenth century, or perhaps even so early as the fourteenth, that St. Vitus had, just before he bent his neck to the sword, prayed to God that he might protect from the Dancing Mania all those who should solemnize the day of his commemoration, and fast upon its eve, and that thereupon a voice from heaven was heard, saying, "Vitus, thy prayer is accepted."[1] Thus St. Vitus became the patron saint of those afflicted with the dancing plague, at St. Martin of Tours was at one time the succourer of persons in small-pox; St. Antonius of those suffering under the "hellish fire;" and as St. Margaret was the Juno Lucina of puerperal women.

Sect. 3.—Causes.

The connexion which John the Baptist had with the dancing mania of the fourteenth century, was of a totally different character. He was originally far from being a protecting saint to those who were attacked, or one who would be likely to give them relief from a malady considered as the work of the devil. On the contrary, the manner in which he was worshipped afforded an important and very evident cause for its development. From the remotest period, perhaps even so far back as the fourth century, St. John's day was solemnized with all sorts of strange and rude customs, of which the originally mystical meaning was variously disfigured among different nations by superadded relics of heathenism.[2] Thus the Germans transferred to the festival of St. John's day an ancient heathen usage, the kindling of the "Nodfyr," which was forbidden them by St. Boniface, and the belief subsists even to the present day that people and animals that have leaped through these flames, or their smoke, are protected for a whole year from fevers and other diseases, as if by a kind of baptism by

8. Cyriacus. 9. Achatius. 10. Eustachius. 11. Ægidius. 12. Margaretha. 13. Catharina. 14. Barbara.

[1] *J. Agricola.* Sybenhundert und fünffzig Teutscher Sprichwörter. No. 497. Seven hundred and fifty German Proverbs. Hagemau, 1537. 8vo. fol. 248.

[2] *St. Augustine* had already warned the people against committing excesses and singing profane songs at the festival of St. John: "Nec permittamus solemnitatem sanctam cantica luxuriosa proferendo polluere."—*St. Augusti* Denkwürdigkeiten aus der Christlichen Archäologie. Vol. III. p. 166. Leipzig. 1820. 8vo. Memorabilia of Christian Archæology.

fire.[1] Bacchanalian dances, which have originated in similar causes among all the rude nations of the earth, and the wild extravagancies of a heated imagination, were the constant accompaniments of this half-heathen, half-christian festival. At the period of which we are treating, however, the Germans were not the only people who gave way to the ebullitions of fanaticism in keeping the festival of St. John the Baptist. Similar customs were also to be found among the nations of Southern Europe and of Asia,[2] and it is more than probable that the Greeks transferred to the festival of John the Baptist, who is also held in high esteem among the Mahomedans, a part of their Bacchanalian mysteries, an absurdity of a kind which is but too frequently met with in human affairs. How far a remembrance of the history of St. John's death may have had an influence on this occasion, we would leave learned theologians to decide. It is only of importance here to add, that in Abyssinia, a country entirely separated from Europe, where Christianity has maintained itself in its primeval simplicity against Mahomedanism, John is to this day worshipped, as protecting saint of those who are attacked with the dancing malady.[3] In these fragments of the dominion of mysticism and superstition, historical connexion is not to be found.

When we observe, however, that the first dances in Aix-la-Chapelle appeared in July with St. John's name in their mouths, the conjecture is probable that the wild revels of St. John's day, A.D. 1374, gave rise to this mental plague, which thenceforth

[1] *Wirthwein.* Series chronologic. Epistolarum S. Bonifacii ab ann. 716—755. LVII. Concil. Liptinens. p. 131. XV. De igne fricato de ligno, id est, Nodfyr. See *Joh. Reiskii.* Untersuchung des bei den Alten Teutschen gebräuchlichen heidnischen Nodfyrs, imgleichen des Oster-und Johannis-Feuers. Enquiry respecting the heathen Nodfyrs customary among the ancient Germans, and also the Easter and St. John's fires. Frankfort, 1696. 8vo.

[2] The Bishop *Theodoret* of Cyrus in Syria, states, that at the festival of St. John, large fires were annually kindled in several towns, through which men, women, and children jumped; and that young children were carried through by their mothers. He considered this custom as an ancient Asiatic ceremony of purification, similar to that recorded of Ahaz, in 2 Kings xvi. 3. (Quæstiones in IV. Libr. Regum. Interrogat. 47, p. 352. *Beati Theodoreti*, Episcop. Cyri Opera omnia. Ed. *Jac. Sirmondi*, Lut. Paris. 1642. fol. T. I.) *Zonaras, Balsamon, and Photius* speak of the St. John's fires in Constantinople, and the first looks upon it as the remains of an old Grecian custom. See *Reiske*, loc. cit. p. 81. That such different nations should have had the same idea of fixing the purification by fire on St. John's day, is a remarkable coincidence, which perhaps can be accounted for only by its analogy to baptism.

[3] The Life and Adventures of *Nathaniel Pearce*, written by himself, during a residence in Abyssinia from the year 1810 to 1819. Edited by *J. J. Halls.* 2 Vols. 8vo. London, 1831. chap. ix. p. 290.

has visited so many thousands with incurable aberration of mind, and disgusting distortions of body.

This is rendered so much the more probable, because some months previously the districts in the neighbourhood of the Rhine and the Maine had met with great disasters. So early as February, both these rivers had overflowed their banks to a great extent; the walls of the town of Cologne, on the side next the Rhine, had fallen down, and a great many villages had been reduced to the utmost distress.[1] To this was added the miserable condition of Western and Southern Germany. Neither law nor edict could suppress the incessant feuds of the Barons, and in Franconia especially, the ancient times of club law appeared to be revived. Security of property there was none; arbitrary will everywhere prevailed; corruption of morals and rude power rarely met with even a feeble opposition; whence it arose that the cruel, but lucrative, persecutions of the Jews were in many places still practised, through the whole of this century, with their wonted ferocity. Thus, throughout the western parts of Germany, and especially in the districts bordering on the Rhine, there was a wretched and oppressed populace; and if we take into consideration, that among their numerous bands many wandered about, whose consciences were tormented with the recollection of the crimes which they had committed during the prevalence of the black plague, we shall comprehend how their despair sought relief in the intoxication of an artificial delirium.[2] There is hence good ground for supposing that the frantic celebration of the festival of St. John, A. D. 1374, only served to bring to a crisis a malady which had been long impending; and if we would further inquire how a hitherto harmless usage, which, like many others, had but served to keep up superstition, could degenerate into so serious a disease, we must take into account the unusual excitement of men's minds, and the

[1] *Joann. Trithem.* Annal. Hirsaugiens. Oper. Tom. II. Hirsaug. 1690. fol. p. 263. A. 1374. See the before-mentioned Chronicle of Cologne, fol. 276. b., wherein it is said that the people passed in boats and rafts over the city walls.

[2] What took place at the St. John's fires in the middle ages (about 1280) we learn by a communication from the Bishop *Guil. Durantes* of Aquitania. (Rationale divinorum officiorum. L. VII. c. 26. In *Reiske*, loc. cit. p. 77.) Bones, horns, and other rubbish, were heaped together to be consumed in smoke, while persons of all ages danced round the flames as if they had been possessed, in the same way as at the Palilia, an ancient Roman lustration by fire, whereat those who took part in them sprang through a fire made of straw. (Ovid. Met. XIV. 774. Fast. IV. 721.) Others seized burning flambeaux, and made a circuit of the fields, in the supposition that they thereby screened them from danger, while others, again, turned a cart-wheel, to represent the retrograde movement of the sun.

consequences of wretchedness and want. The bowels, which in many were debilitated by hunger and bad food, were precisely the parts which in most cases were attacked with excruciating pain, and the tympanitic state of the intestines, points out to the intelligent physician an origin of the disorder which is well worth consideration.

Sect. 4.—More ancient Dancing Plagues.

The dancing mania of the year 1374 was, in fact, no new disease, but a phenomenon well known in the middle ages, of which many wondrous stories were traditionally current among the people. In the year 1237, upwards of a hundred children were said to have been suddenly seized with this disease at Erfurt, and to have proceeded dancing and jumping along the road to Arnstadt. When they arrived at that place they fell exhausted to the ground, and, according to an account of an old chronicle, many of them, after they were taken home by their parents, died, and the rest remained affected, to the end of their lives, with the permanent tremor.[1] Another occurrence was related to have taken place on the Mosel bridge at Utrecht, on the 17th day of June, A.D. 1278, when two hundred fanatics began to dance, and would not desist until a priest passed who was carrying the Host to a person that was sick, upon which, as if in punishment of their crime, the bridge gave way, and they were all drowned.[2] A similar event also occurred so early as the year 1027, near the convent church of Kolbig, not far from Bernburg. According to an oft-repeated tradition, eighteen peasants, some of whose names are still preserved, are said to have disturbed divine service on Christmas eve, by dancing and brawling in the churchyard, whereupon the priest, Ruprecht, inflicted a curse upon them, that they should dance and scream for a whole year without ceasing. This curse is stated to have been completely fulfilled, so that the unfortunate sufferers at length sank knee deep into the earth, and remained the whole time without nourishment, until they were finally released by the intercession of two pious bishops. It is said, that upon this they fell into a deep sleep, which lasted three days, and that four of them died: the rest continuing to suffer all their lives from a

[1] *J. Chr. Beckmann*, Historia des Fürstenthums Anhalt. Zerbst. History of the Principality of Anhalt. Zerbst. 1710. fol. Part III. book 4. chap. 4. § 3. p. 467.

[2] *Martini* Minoritæ Flores temporum, in *Jo. Georg. Eccard*, Corpus historiæ medii ævi. Lips. 1723. fol. Tom. I. p. 1632.

trembling of their limbs.[1] It is not worth while to separate what may have been true, and what the addition of crafty priests, in this strangely distorted story. It is sufficient that it was believed, and related with astonishment and horror throughout the middle ages; so that when there was any exciting cause for this delirious raving, and wild rage for dancing, it failed not to produce its effects upon men whose thoughts were given up to a belief in wonders and apparitions.

This disposition of mind, altogether so peculiar to the middle ages, and which, happily for mankind, has yielded to an improved state of civilization and the diffusion of popular instruction, accounts for the origin and long duration of this extraordinary mental disorder. The good sense of the people recoiled with horror and aversion from this heavy plague, which, whenever malevolent persons wished to curse their bitterest enemies and adversaries, was long after used as a malediction.[2] The indignation also that was felt by the people at large against the immorality of the age, was proved by their ascribing this frightful affliction to the inefficacy of baptism by unchaste priests, as if innocent children were doomed to atone, in after years, for this desecration of the sacrament administered by unholy hands.[3] We have already mentioned what perils the priests in the Netherlands incurred from this belief. They now, indeed, endeavoured to hasten their reconciliation with the irritated, and at that time very degenerate people,[4] by exorcisms, which, with some, procured them greater respect than ever, because they thus visibly restored thousands of those who were affected. In general, however, there prevailed a want of confidence in their efficacy, and then the sacred rites had as little power in arresting the progress of this deeply-rooted malady, as the prayers and holy services subsequently had at the altars of the greatly revered martyr St. Vitus.

[1] *Beckmann* loc. cit. § 1. f. p. 465, where many other observations are made on this well-known circumstance. The priest named, is the same who is still known in the nursery tales of children as the *Knecht Ruprecht*.

[2] "Das dich Sanct Veitstanz ankomme." May you be seized with St. Vitus's Dance. *Joh. Agricola*, Sybenhundert und fünffzig Teutscher Sprichwörter. Hagenau, 1537, 8. No. 497. p. 268.

[3] *Spangenberg* (Adels-Spiegel. Mirror of Nobility, loc. cit.), in his own forcible manner, thus expresses himself on this subject: "It was afterwards pointed out by some, that these people could not have been properly baptized, or at all events, that their baptism was ineffectual, because they had received it from priests who shamelessly lived in open cohabitation with unchaste harlots. Upon this the lower classes rose in rebellion, and would have killed all the priests." Compare Appendix, No. I.

[4] *Bzovii* Annal. ecclesiastic. loc. cit. 1468.

We may therefore ascribe it to accident merely, and to a certain aversion to this demoniacal disease, which seemed to lie beyond the reach of human skill, that we meet with but few and imperfect notices of the St. Vitus's dance in the second half of the fifteenth century. The highly-coloured descriptions of the sixteenth century contradict the notion that this mental plague had in any degree diminished in its severity, and not a single fact is to be found which supports the opinion, that any one of the essential symptoms of the disease, not even excepting the tympany, had disappeared, or that the disorder itself had become milder in its attacks. The physicians never, as it seems, throughout the whole of the fifteenth century, undertook the treatment of the dancing mania, which, according to the prevailing notions, appertained exclusively to the servants of the church. Against demoniacal disorders they had no remedies, and though some at first did promulgate the opinion, that the malady had its origin in natural circumstances, such as a hot temperament, and other causes named in the phraseology of the schools,[1] yet these opinions were the less examined, as it did not appear worth while to divide with a jealous priesthood the care of a host of fanatical vagabonds and beggars.

Sect. 5.—Physicians.

It was not until the beginning of the sixteenth century that the St. Vitus's dance was made the subject of medical research, and stripped of its unhallowed character as a work of demons. This was effected by Paracelsus, that mighty, but as yet scarcely comprehended, reformer of medicine, whose aim it was to withdraw diseases from the pale of miraculous interpositions and saintly influences, and explain their causes upon principles deduced from his knowledge of the human frame. "We will not however admit that the saints have power to inflict diseases, and that these ought to be named after them, although many there are, who in their theology lay great stress on this supposition, ascribing them rather to God than to nature, which is but idle talk. We dislike such nonsensical gossip as is not supported by symptoms, but only by faith, a thing which is not human, whereon the gods themselves set no value."

Such were the words which Paracelsus addressed to his contemporaries, who were as yet incapable of appreciating doctrines of

[1] See Appendix, Nos. III. and IV.

this sort; for the belief in enchantment still remained everywhere unshaken, and faith in the world of spirits still held men's minds in so close a bondage that thousands were, according to their own conviction, given up as a prey to the devil; while at the command of religion as well as of law, countless piles were lighted, by the flames of which human society was to be purified.

Paracelsus divides the St. Vitus's dance into three kinds. First, that which arises from imagination (Vitista, Chorea imaginativa, æstimativa), by which the original dancing plague is to be understood. Secondly, that which arises from sensual desires, depending on the will (Chorea lasciva). Thirdly, that which arises from corporeal causes (Chorea naturalis, coacta), which, according to a strange notion of his own, he explained by maintaining, that in certain vessels which are susceptible of an internal pruriency, and thence produce laughter, the blood is set in commotion, in consequence of an alteration in the vital spirits, whereby involuntary fits of intoxicating joy, and a propensity to dance, are occasioned.[1] To this notion he was, no doubt, led from having observed a milder form of St. Vitus's dance, not uncommon in his time, which was accompanied by involuntary laughter; and which bore a resemblance to the hysterical laughter of the moderns, except that it was characterized by more pleasurable sensations, and by an extravagant propensity to dance. There was no howling, screaming, and jumping, as in the severer form; neither was the disposition to dance by any means insuperable. Patients thus affected, although they had not a complete control over their understandings, yet were sufficiently self-possessed, during the attack, to obey the directions which they received. There were even some among them who did not dance at all, but only felt an involuntary impulse to allay the internal sense of disquietude, which is the usual forerunner of an attack of this kind, by laughter, and quick walking carried to the extent of producing fatigue.[2] This disorder, so different from the original type, evidently approximates to the modern chorea; or rather is in perfect accordance with it, even to the less essential symptom of laughter. A mitigation in the form of the dancing mania had thus clearly taken place at the commencement of the sixteenth century.

[1] *Theophrasti Bombast von Hohenheym*, 7 Buch in der Artzney. Von den Krankheiten, die der Vernunft berauben. 7th Book on Medicine. Of the diseases which produce insanity. Tract I. chap. 3, p. 491. Tract II. chap. 3, p. 501. Opera. Strassburg, 1616. fol. Tom. I.

[2] Chorea procursiva of the moderns. *Bernt*, Monographia Choreæ Sti. Viti. Prag. 1810. p. 25.

On the communication of the St. Vitus's dance by sympathy, Paracelsus, in his peculiar language, expresses himself with great spirit, and shows a profound knowledge of the nature of sensual impressions, which find their way to the heart,—the seat of joys and emotions,—which overpower the opposition of reason; and whilst "all other qualities and natures" are subdued, incessantly impel the patient, in consequence of his original compliance, and his all-conquering imagination, to imitate what he has seen. On his treatment of the disease we cannot bestow any great praise, but must be content with the remark, that it was in conformity with the notions of the age in which he lived. For the first kind, which often originated in passionate excitement, he had a mental remedy, the efficacy of which is not to be despised, if we estimate its value in connexion with the prevalent opinions of those times. The patient was to make an image of himself in wax or resin, and by an effort of thought to concentrate all his blasphemies and sins in it. "Without the intervention of any other person, to set his whole mind and thoughts concerning these oaths in the image;" and when he had succeeded in this, he was to burn the image, so that not a particle of it should remain.[1] In all this there was no mention made of St. Vitus, or any of the other mediatory saints, which is accounted for by the circumstance, that, at this time, an open rebellion against the Romish Church had begun, and the worship of saints was by many rejected as idolatrous.[2] For the second kind of St. Vitus's dance, arising from sensual irritation, with which women were far more frequently affected than men,

[1] This proceeding was, however, no invention of his, but an imitation of a usual mode of enchantment by means of wax figures (peri cunculas). The witches made a wax image of the person who was to be bewitched; and in order to torment him, they stuck it full of pins, or melted it before the fire. The books on magic, of the middle ages, are full of such things; though the reader who may wish to obtain information on this subject, need not go so far back. Only eighty years since, the learned and celebrated *Storch*, of the school of *Stahl*, published a treatise on witchcraft, worthy of the fourteenth century. "Abhandlung von Kinderkrankheiten." Treatise on the Diseases of Children. Vol. IV. p. 228. Eisenach, 1751-8.

The ancients were in the habit of employing wax in incantations.

Thus Simoetha in Theocritus:

'Ως τοῦτον τὸν καρὸν ἐγὼ σὺν δαίμονι τάκω,
'Ως τάκοιθ' ὑπ' ἔρωτος ὁ Μύνδιος αὐτίκα Δέλφις.

See Potter's Antiquities, Vol. II. p. 251.

and Horace—

"Lanea et effigies erat, altera cerea."

Lib. 1. *Sat.* 8. *l.* 30.
Transl. note.

[2] See *Agricola*, loc. cit. p. 269. No. 498.

Paracelsus recommended harsh treatment and strict fasting. He directed that the patients should be deprived of their liberty; placed in solitary confinement, and made to sit in an uncomfortable place, until their misery brought them to their senses and to a feeling of penitence. He then permitted them gradually to return to their accustomed habits. Severe corporal chastisement was not omitted; but, on the other hand, angry resistance on the part of the patient was to be sedulously avoided, on the ground that it might increase his malady, or even destroy him: moreover, where it seemed proper, Paracelsus allayed the excitement of the nerves by immersion in cold water. On the treatment of the third kind we shall not here enlarge. It was to be effected by all sorts of wonderful remedies, composed of the quintessences; and it would require, to render it intelligible, a more extended exposition of peculiar principles than suits our present purpose.

Sect. 6.—Decline and Termination of the Dancing Plague.

About this time the St. Vitus's dance began to decline, so that milder forms of it appeared more frequently, while the severer cases became more rare; and even in these, some of the important symptoms gradually disappeared. Paracelsus makes no mention of the tympanites as taking place after the attacks, although it may occasionally have occurred; and Schenck von Graffenberg, a celebrated physician of the latter half of the sixteenth century,[1] speaks of this disease as having been frequent only in the time of his forefathers; his descriptions, however, are applicable to the whole of that century, and to the close of the fifteenth.[2] The St. Vitus's dance attacked people of all stations, especially those who led a sedentary life, such as shoemakers and tailors; but even the most robust peasants abandoned their labours in the fields, as if they were possessed by evil spirits; and thus those affected were seen assembling indiscriminately, from time to time, at certain appointed places, and, unless prevented by the lookers-on, continuing to dance without intermission, until their very last breath was expended. Their fury and extravagance of demeanour so completely deprived them of their senses, that many of them dashed their brains out against the walls and corners of buildings,

[1] *Johann Schenck von Graffenberg*, born 1530, took his degree at Tübingen, in 1554. He passed the greater part of his life as physician to the corporation of Freiburg in the Breisgau, and died in 1598.

[2] *J. Schenkii a Graffenberg* Observationum medicarum, rariarum, &c. Libri VII. Lugdun. 1643. fol. L. I. Obs. VIII. p. 136.

or rushed headlong into rapid rivers, where they found a watery grave. Roaring and foaming as they were, the by-standers could only succeed in restraining them by placing benches and chairs in their way, so that, by the high leaps they were thus tempted to take, their strength might be exhausted. As soon as this was the case, they fell as it were lifeless to the ground, and, by very slow degrees, again recovered their strength. Many there were who, even with all this exertion, had not expended the violence of the tempest which raged within them, but awoke with newly revived powers, and again and again mixed with the crowd of dancers, until at length the violent excitement of their disordered nerves was allayed by the great involuntary exertion of their limbs; and the mental disorder was calmed by the extreme exhaustion of the body. Thus the attacks themselves were in these cases, as in their nature they are in all nervous complaints, necessary crises of an inward morbid condition, which was transferred from the sensorium to the nerves of motion, and, at an earlier period, to the abdominal plexus, where a deep-seated derangement of the system was perceptible from the secretion of flatus in the intestines.

The cure effected by these stormy attacks was in many cases so perfect, that some patients returned to the factory or the plough as if nothing had happened. Others, on the contrary, paid the penalty of their folly by so total a loss of power, that they could not regain their former health, even by the employment of the most strengthening remedies. Medical men were astonished to observe that women in an advanced state of pregnancy were capable of going through an attack of the disease, without the slightest injury to their offspring, which they protected merely by a bandage passed round the waist. Cases of this kind were not unfrequent so late as Schenck's time. That patients should be violently affected by music, and their paroxysms brought on and increased by it, is natural with such nervous disorders; where deeper impressions are made through the ear, which is the most intellectual of all the organs, than through any one of the other senses. On this account the magistrates hired musicians for the purpose of carrying the St. Vitus's dancers so much the quicker through the attacks, and directed, that athletic men should be sent among them in order to complete the exhaustion, which had been often observed to produce a good effect.[1] At the same time there was a

[1] It is related by *Felix Plater* (born 1536, died 1614) that he remembered in his

prohibition against wearing red garments, because at the sight of this colour, those affected became so furious, that they flew at the persons who wore it, and were so bent upon doing them an injury that they could with difficulty be restrained. They frequently tore their own clothes whilst in the paroxysm, and were guilty of other improprieties, so that the more opulent employed confidential attendants to accompany them, and to take care that they did no harm either to themselves or others. This extraordinary disease was, however, so greatly mitigated in Schenck's time, that the St. Vitus's dancers had long since ceased to stroll from town to town; and that physician, like Paracelsus, makes no mention of the tympanitic inflation of the bowels. Moreover, most of those affected were only annually visited by attacks; and the occasion of them was so manifestly referrible to the prevailing notions of that period, that if the unqualified belief in the supernatural agency of saints could have been abolished, they would not have had any return of the complaint. Throughout the whole of June, prior to the festival of St. John, patients felt a disquietude and restlessness which they were unable to overcome. They were dejected, timid, and anxious; wandered about in an unsettled state, being tormented with twitching pains, which seized them suddenly in different parts, and eagerly expected the eve of St. John's day, in the confident hope, that by dancing at the altars of this saint, or of St. Vitus (for in the Breisgau aid was equally sought from both), they would be freed from all their sufferings. This hope was not disappointed; and they remained, for the rest of the year, exempt from any further attack, after having thus, by dancing and raving for three hours, satisfied an irresistible demand of nature. There were at that period two chapels in the Breisgau, visited by the St. Vitus's dancers; namely, the Chapel of St. Vitus at Biessen, near Breisach, and that of St. John, near Wasenwieler; and it is probable that in the south-west of Germany the disease was still in existence in the seventeenth century.

However, it grew every year more rare, so that, at the begin-

youth the authorities of Basle having commissioned several powerful men to dance with a girl who had the dancing mania, till she recovered from her disorder. They successively relieved each other; and this singular mode of cure lasted above four weeks, when the patient fell down exhausted, and being quite unable to stand, was carried to an hospital, where she recovered. She had remained in her clothes all the time, and entirely regardless of the pain of her lacerated feet, she had merely sat down occasionally to take some nourishment, or to slumber, during which the hopping movement of her body continued. *Felic. Plateri* Praxeos medicæ opus. L. I. ch. 3. p. 88. Tom. I. Basil. 1656. 4to. Ejusd. Observation. Basil. 1641. 8. p. 92.

ning of the seventeenth century, it was observed only occasionally in its ancient form. Thus in the spring of the year 1623, G. Horst saw some women who annually performed a pilgrimage to St. Vitus's chapel at Drefelhausen, near Weissenstein, in the territory of Ulm, that they might wait for their dancing fit there, in the same manner as those in the Breisgau did, according to Schenck's account. They were not satisfied, however, with a dance of three hours' duration, but continued day and night in a state of mental aberration, like persons in an ecstasy, until they fell exhausted to the ground; and when they came to themselves again, they felt relieved from a distressing uneasiness and painful sensation of weight in their bodies, of which they had complained for several weeks prior to St. Vitus's day.[1]

After this commotion they remained well for the whole year; and such was their faith in the protecting power of the saint, that one of them had visited this shrine at Drefelhausen more than twenty times, and another had already kept the Saint's day for the thirty-second time at this sacred station.

The dancing fit itself was excited here, as it probably was in other places, by music, from the effects of which the patients were thrown into a state of convulsion.[2] Many concurrent testimonies serve to show that music generally contributed much to the continuance of the St. Vitus's dance, originated and increased its paroxysms, and was sometimes the cause of their mitigation. So early as the fourteenth century, the swarms of St. John's dancers were accompanied by minstrels playing upon noisy instruments, who roused their morbid feelings; and it may readily be supposed that, by the performance of lively melodies, and the stimulating effects which the shrill tones of fifes and trumpets would produce, a paroxysm, that was perhaps but slight in itself, might, in many cases, be increased to the most outrageous fury, such as in later times was purposely induced in order that the force of the disease might be exhausted by the violence of its attack. Moreover, by means of intoxicating music a kind of demoniacal festival for the rude multitude was established, which had the effect of spreading this unhappy malady wider and wider. Soft harmony was, however, employed to calm the excitement of those affected, and it is mentioned as a character of the tunes played with this view to the

[1] The 15th of June. Here therefore they did not wait till the Festival of St. John.

[2] *Gregor. Horstii* Observationum medicinalium singularium Libri IV. priores. His accessit Epistolarum et Consultationum medicar. Lib. I. Ulm. 1628. 4to. Epistol. p. 374.

St. Vitus's dancers, that they contained transitions from a quick to a slow measure, and passed gradually from a high to a low key.[1] It is to be regretted that no trace of this music has reached our times, which is owing partly to the disastrous events of the seventeenth century, and partly to the circumstance that the disorder was looked upon as entirely national, and only incidentally considered worthy of notice by foreign men of learning. If the St. Vitus's dance was already on the decline at the commencement of the seventeenth century, the subsequent events were altogether adverse to its continuance. Wars carried on with animosity and with various success for thirty years, shook the west of Europe; and although the unspeakable calamities which they brought upon Germany, both during their continuance and in their immediate consequences, were by no means favourable to the advance of knowledge, yet, with the vehemence of a purifying fire, they gradually effected the intellectual regeneration of the Germans; superstition, in her ancient form, never again appeared, and the belief in the dominion of spirits, which prevailed in the middle ages, lost for ever its once formidable power.

CHAPTER II.

DANCING MANIA IN ITALY.

Sect. 1.—Tarantism.

It was of the utmost advantage to the St. Vitus's dancers that they made choice of a favourite patron saint; for not to mention that people were inclined to compare them to the possessed with evil spirits, described in the Bible, and thence to consider them as innocent victims to the power of Satan, the name of their great intercessor recommended them to general commiseration, and a magic boundary was thus set to every harsh feeling which might otherwise have proved hostile to their safety. Other fanatics were not so fortunate, being often treated with the most relentless cruelty whenever the notions of the middle ages either excused or commanded it as a religious duty.[2] Thus, passing over the innu-

[1] *Jo. Bodin.* Method. historic. Amstelod. 1650. 12mo, Ch. V. p. 99.—Idem, de Republica. Francofurt. 1591. 8vo. Lib. V. Ch. I. p. 789.

[2] A very remarkable case, illustrative in part of this observation, where, however, not the person who was supposed to be the subject of the demoniacal malady, but its alleged authors, were punished, is thus reported by Dr. Watt of Glasgow:—"It occurred at

merable instances of the burning of witches, who were, after all, only labouring under a delusion, the Teutonic knights in Prussia not unfrequently condemned those maniacs to the stake who imagined themselves to be metamorphosed into wolves[1]—an extraordinary species of insanity, which, having existed in Greece, before our era, spread, in process of time, over Europe, so that it was communicated not only to the Romaic, but also to the German and Sarmatian nations, and descended from the ancients, as a legacy of affliction to posterity. In modern times Lycanthropy, such was the name given to this infatuation, has vanished from the earth, but it is nevertheless well worthy the consideration of the observer of human aberrations, and a history of it by some

Bargarran, in Renfrewshire, in 1696. The patient's name was Christian Shaw, a girl of eleven years of age. She is described as having had violent fits of leaping, dancing, running, crying, fainting, &c., but the whole narrative is mixed up with so much credulity and superstition, that it is impossible to separate truth from fiction. These strange fits continued from August, 1696, till the end of March in the year following, when the patient recovered." An account of the whole was published at Edinburgh, in 1698, entitled "A true Narrative of the Sufferings of a Young Girl, who was strangely molested by evil spirits, and their instruments, in the West, collected from authentic testimonies."

The whole being ascribed to witchcraft, the clergy were most active on the occasion. Besides occasional days of humiliation, two solemn fasts were observed throughout the whole bounds of the Presbytery, and a number of clergymen and elders were appointed in rotation, to be constantly on the spot. So far the matter was well enough. But such was the superstition of the age, that a memorial was presented to his Majesty's most honourable Privy Council, and on the 19th of January, 1697, a warrant was issued, setting forth "that there were pregnant grounds of suspicion of witchcraft in Renfrewshire, especially from the afflicted and extraordinary condition of Christian Shaw, daughter of John Shaw, of Bargarran." A commission was therefore granted to Alexander Lord Blantyre, Sir John Maxwell, Sir John Shaw, and five others, together with the sheriff of the county, to inquire into the matter, and report. This commission is signed by eleven privy councillors, consisting of some of the first noblemen and gentlemen in the kingdom.

The report of the commissioners having fully confirmed the suspicions respecting the existence of witchcraft, another warrant was issued on the 5th of April, 1697, to Lord Hallcraig, Sir John Houston, and four others, "to try the persons accused of witchcraft, and to sentence the guilty to be burned, or otherwise executed to death, as the commission should incline."

The commissioners, thus empowered, were not remiss in the discharge of their duty. After twenty hours were spent in the examination of witnesses, and counsel heard on both sides, the counsel for the prosecution "exhorted the jury to beware of condemning the innocent: but at the same time, should they acquit the prisoners in opposition to legal evidence, they would be accessory to all the blasphemies, apostacies, murders, tortures, and seductions, whereof these enemies of heaven and earth should hereafter be guilty." After the jury had spent six hours in deliberation, seven of the miserable wretches, three men and four women, were condemned to the flames, and the sentence faithfully executed at Paisley, on the 10th of June, 1697.—*Medico-Chirurg. Trans.* Vol. V. p. 20, et seq.—*Transl. note.*

[1] Compare *Olaus Magnus*, de gentibus septentrionalibus. Lib. XVIII. Ch. 45—47. p. 642, seq. Rom. 1555. fol.

writer who is equally well acquainted with the middle ages as with antiquity, is still a desideratum.[1] We leave it for the present, without further notice, and turn to a malady most extraordinary in all its phenomena, having a close connexion with the St. Vitus's

[1] *Burton*, in his Anatomy of Melancholy, has the following observations, which, with the ample references by which they are accompanied, will furnish materials for such a history.

"*Lycanthropia*, which *Avicenna* calls *cucubuth*, others *lupinam insaniam*, or wolf-madness, when men run howling about graves and fields in the night, and will not be persuaded but that they are wolves, or some such beasts. *Aëtius* (Lib. 6. cap. 11.) and *Paulus* (Lib. 3. cap. 16.) call it a kind of *melancholy;* but I should rather refer it to *madness*, as most do. Some make a doubt of it, whether there be any such disease. *Donat. ab Altomari* (Cap. 9. Art. Med.) saith, that he saw two of them in his time: *Wierus* (De Præstig. Demonum, l. 3. cap. 21.) tells a story of such a one at Padua, 1541, that would not believe to the contrary but that he was a wolf. He hath another instance of a Spaniard, who thought himself a bear. *Forestus* (Observat. lib. 10. de Morbis Cerebri, c. 15.) confirms as much by many examples; one, among the rest, of which he was an eye-witness, at Alcmaer in Holland.—A poor husbandman that still hunted about graves, and kept in churchyards, of a pale, black, ugly, and fearful look. Such, belike, or little better, were king Prœtus' daughters (*Hippocrates* lib. de insaniâ), that thought themselves kine: and Nebuchadnezzar, in Daniel, as some interpreters hold, was only troubled with this kind of madness. This disease, perhaps, gave occasion to that bold assertion of Pliny (Lib. 8. cap. 22. homines interdum lupos fieri; et contra), *some men were turned into wolves in his time, and from wolves to men again;* and to that fable of Pausanias, of a man that was ten years a wolf, and afterwards turned to his former shape; to Ovid's (Met. lib. 1.) tale of Lycaon, &c. He that is desirous to hear of this disease, or more examples, let him read *Austin* in his eighteenth book, *de Civitate Dei*, cap. 5; *Mizaldus*, cent. 5. 77; *Schenkius*, lib. 1. *Hildesheim*, *Spicil.* 2. *de maniâ;* Forestus, lib. 10. *de morbis cerebri; Olaus Magnus; Vicentius Bellavicensis*, *spec. met.* lib. 31. c. 122; *Pierius*, *Bodine*, *Zuinger*, *Zeilgur*, *Peucer*, *Wierus*, *Spranger*, *&c.* This malady, saith *Avicenna*, troubleth men most in February, and is now-a-days frequent in Bohemia and Hungary, according to *Heurnius.* (Cap. de Man.) *Schernitzius* will have it common in Livonia. They lie hid, most part, all day, and go abroad in the night, barking, howling, at graves and deserts; *they have usually hollow eyes, scabbed legs and thighs, very dry and pale* (Ulcerata crura; sitis ipsis adest immodica; pallidi; lingua sicca), saith *Altomarus:* he gives a reason there of all the symptoms, and sets down a brief cure of them."—*Burton's Anatomy of Melancholy.* Tenth Edit.: 8vo. 1804. Vol. I. Page 13, et seq.

It is surprising that so learned a writer as *Burton* should not have alluded to Oribasius, who flourished 140 years before *Aëtius*, and of whom *Freind* says, "In auctore hoc miri cujusdam morbi prima mentio est; is Λυκάνθρωπος sive Λυκανθρωπία dicitur, estque melancholiæ, aut insaniæ, species quænam ita ab illo descripta: 'Quos hoc malum infestos habet, nocturno tempore domo egressi, Lupos in omnibus rebus imitantur, et ad diem usque circa tumulos vagantur mortuorum. Hos ita cognosce: pallidi sunt, oculos hebetes et siccos, non illachrymantes, eosque concavos habent: lingua siccissima est, nulla penitus in ore saliva conspicitur, siti enecti; crura vero, quia noctu sæpe offendunt, sine remedio exulcerata.'—'Quod ad morbum ipsum attinet, si peregrinantibus fides adhibenda est, fuit olim in quibusdam regionibus, ut in Livonia, Hibernia, et aliis locis visi non infrequens,'" &c.—*J. Freind. Opera omnia Med.* fol. London. 1733.

De hujus morbi antiquitatibus vide elegantem *Böttigeri* disputationem in *Sprengelii* Beitr. z. Gesch. d. Med. 11. p. 1—45.—*Blancard. Lexic. Med.* Edit. noviss. 8vo. Lipsiæ, 1832.—*Transl. note.*

dance, and, by a comparison of facts, which are altogether similar, affording us an instructive subject for contemplation. We allude to the disease called Tarantism, which made its first appearance in Apulia, and thence spread over the other provinces of Italy, where, during some centuries, it prevailed as a great epidemic. In the present times it has vanished, or at least has lost altogether its original importance, like the St. Vitus's dance, lycanthropy, and witchcraft.

Sect. 2.—Most ancient Traces.—Causes.

The learned Nicholas Perotti[1] gives the earliest account of this strange disorder. Nobody had the least doubt that it was caused by the bite of the *tarantula*,[2][3] a ground-spider common in Apulia; and the fear of this insect was so general, that its bite was in all probability much oftener imagined, or the sting of some other kind of insect mistaken for it, than actually received. The word *tarantula* is apparently the same as *terrantola*, a name given by the Italians to the stellio of the old Romans, which was a kind of lizard,[4] said to be poisonous, and invested by credulity with such extraordinary qualities, that, like the serpent of the Mosaic account of the Creation, it personified, in the imaginations of the vulgar, the notion of cunning, so that even the jurists designated a

[1] Born 1430, died 1480. Cornucopiæ latinæ linguæ. Basil. 1536. fol. Comment. in primum *Martialis* Epigramma, p. 51, 52. "Est et alius stellio ex araneorum genere, qui, simili modo, ascalabotes a Græcis dicitur, et colotes et galeotes, lentiginosus in cavernulis dehiscentibus, per æstum terræ habitans. Hic majorum nostrorum temporibus in Italia visus non fuit, nunc frequens in Apulia visitur. Aliquando etiam in Tarquinensi et Corniculano agro, et vulgo similiter *tarantula* vocatur. Morsus ejus perraro interemit hominem, semistupidum tamen facit, et varie afficit, *tarantulam* vulgo appellant. *Quidam cantu audito, aut sono, ita excitantur, ut pleni lætitia et semper ridentes saltent, nec nisi defatigati et semineces desistant.* Alii semper flentes, quasi desiderio suorum miserabilem vitam agant. Alii visa muliere, libidinis statim ardore incensi, veluti furentes in eam prosiliant. Quidam ridendo, quidam flendo moriantur."

[2] Lycosa Tarantula.

[3] The Aranea Tarantula of *Linnæus*, who, after the technical description, says, "Habitat in Europa australi, potissimum Apulia, in Barbaria, in Tauria, Russiæque australis desertis, in Astracania ad montes Sibiriæ Altaicos usque, in Persia et reliquo Oriente, in solo præsertim argillaceo in antris, morsu quamvis interdum dolente, olimque famosum tarantismum musica sanandum excitare credito, vix unquam periculoso, cinerascens, oculis duobus prioribus rubris, thorace in areas nigras diviso in centrum concurrentes, abdomine supra fasciis maxillisque nigris."—*Systema Naturæ*. Tom. I. pars v. p. 2956.

For particulars regarding the habits of the Lycosæ, see *Griffith's* Transl. of *Cuvier's* Animal Kingdom. Vol. XIII. p. 427 and p. 480. et seq. The author states that *M. Chabrier* has published (Soc. Acad. de Lille 4e cahier) some curious observations on the *Lycosa tarantula* of the south of France. — *Transl. note.*

[4] *Matthiol.* Commentar. in Dioscorid. L. II. ch. 59. p. 363. Ed. Venet. 1565. fol.

cunning fraud by the appellation of a "stellionatus."[1] Perotti expressly assures us that this reptile was called by the Romans *tarantula;* and since he himself, who was one of the most distinguished authors of his time, strangely confounds spiders and lizards together, so that he considers the Apulian tarantula, which he ranks among the class of spiders, to have the same meaning as the kind of lizard called ἀσκαλαβώτης,[2] it is the less extraordinary that the unlearned country people of Apulia should confound the much dreaded ground-spider with the fabulous star-lizard,[3] and appropriate to the one the name of the other. The derivation of the word tarantula, from the city of Tarentum, or the river Thara, in Apulia,[4] on the banks of which this insect is said to have been most frequently found, or at least its bite to have had the most venomous effect, seems not to be supported by authority. So much for the name of this famous spider, which, unless we are greatly mistaken, throws no light whatever upon the nature of the disease in question. Naturalists who, possessing a knowledge of the past, should not misapply their talents by employing them in establishing the dry distinction of forms, would find here much that calls for research, and their efforts would clear up many a perplexing obscurity.

Perotti states that the tarantula, that is, the spider so called, was not met with in Italy in former times, but that in his day it had become common, especially in Apulia, as well as in some other districts. He deserves, however, no great confidence as a naturalist, notwithstanding his having delivered lectures in Bologna on medicine and other sciences.[5] He at least has neglected to prove his assertion, which is not borne out by any analogous phenomenon observed in modern times with regard to the history of the spider species. It is by no means to be admitted that the tarantula did not make its appearance in Italy before the disease ascribed to its bite became remarkable, even though tempests more violent than those unexampled storms which arose at the time of the Black Death[6] in the middle of the fourteenth century had set the insect world in motion; for the spider is little, if at

[1] *Perotti*, loc. cit.

[2] Probably Lacerta Gecko, as also the synonymes, κωλώτης and γαλεώτης, quoted by him.

[3] Lacerta Stellio. It need scarcely be observed that the venomous nature of this harmless creature was a pure invention of Roman superstition.

[4] See *Athan. Kircher.* loc. cit.

[5] From 1451—1458. *Tiraboschi.* VI. 11. p. 356.

[6] See p. 11, et seq.

all, susceptible of those cosmical influences which at times multiply locusts and other winged insects to a wonderful extent, and compel them to migrate.

The symptoms which Perotti enumerates as consequent on the bite of the tarantula agree very exactly with those described by later writers. Those who were bitten generally fell into a state of melancholy, and appeared to be stupified, and scarcely in possession of their senses. This condition was, in many cases, united with so great a sensibility to music, that, at the very first tones of their favourite melodies, they sprang up, shouting for joy, and danced on without intermission, until they sank to the ground exhausted and almost lifeless. In others the disease did not take this cheerful turn. They wept constantly, and as if pining away with some unsatisfied desire, spent their days in the greatest misery and anxiety. Others, again, in morbid fits of love cast their longing looks on women, and instances of death are recorded, which are said to have occurred under a paroxysm of either laughing or weeping.

From this description, incomplete as it is, we may easily gather that tarantism, the essential symptoms of which are mentioned in it, could not have originated in the fifteenth century, to which Perotti's account refers; for that author speaks of it as a well-known malady, and states that the omission to notice it by older writers, was to be ascribed solely to the want of education in Apulia, the only province probably where the disease at that time prevailed. A nervous disorder that had arrived at so high a degree of development, must have been long in existence, and doubtless had required an elaborate preparation by the concurrence of general causes.

The symptoms which followed the bite of venomous spiders were well known to the ancients, and had excited the attention of their best observers, who agree in their descriptions of them. It is probable that among the numerous species of their phalangium,[1] the Apulian tarantula is included, but it is difficult to determine this point with certainty, more especially, because in Italy the tarantula was not the only insect which caused this nervous affection, similar results being likewise attributed to the bite of the scorpion. Lividity of the whole body as well as of the coun-

[1] *Aëtius*, who wrote at the end of the sixth century, mentions six which occur in the older works. 1. *ῥάγιον*, 2. *λίκος*, 3. *μυρμήκειον*, 4. *κρανοκολάπτης*, by others, *κεφαλοχρούστης*, 5. *σκληροκέφαλον*, and 6. *σκωλήκιον*. Tetrabl. IV. Serm. I. ch. 18. in *Hen. Steph.* Compare *Dioscorid.* Lib. VI. ch. 42. *Matthiol.* Commentar. in Dioscorid. p. 1447. *Nicand.* Theriac. V. 8. 715. 755. 654.

tenance, difficulty of speech, tremor of the limbs, icy coldness, pale urine, depression of spirits, head-ache, a flow of tears, nausea, vomiting, sexual excitement, flatulence, syncope, dysuria, watchfulness, lethargy, even death itself, were cited by them as the consequences of being bitten by venomous spiders, and they made little distinction as to their kinds. To these symptoms we may add the strange rumour, repeated throughout the middle ages, that persons who were bitten, ejected by the bowels and kidneys, and even by vomiting, substances resembling a spider's web.

Nowhere, however, do we find any mention made that those affected felt an irresistible propensity to dancing, or that they were accidentally cured by it. Even Constantine of Africa, who lived 500 years after Aëtius, and as the most learned physician of the school of Salerno, would certainly not have passed over so acceptable a subject of remark, knows nothing of such a memorable course of this disease arising from poison, and merely repeats the observations of his Greek predecessors.[1] Gariopontus,[2] a Salernian physician of the eleventh century, was the first to describe a kind of insanity, the remote affinity of which to the tarantula disease is rendered apparent by a very striking symptom. The patients in their sudden attacks behaved like maniacs, sprang up, throwing their arms about with wild movements, and, if perchance a sword was at hand, they wounded themselves and others, so that it became necessary carefully to secure them. They imagined that they heard voices, and various kinds of sounds, and if, during this state of illusion, the tones of a favourite instrument happened to catch their ear, they commenced a spasmodic dance, or ran with the utmost energy which they could muster, until they were totally exhausted. These dangerous maniacs, who, it would seem, appeared in considerable numbers, were looked upon as a legion of devils, but on the causes of their malady this obscure writer adds nothing further than that he believes (oddly enough) that it may sometimes be excited by the bite of a mad dog. He calls the disease Anteneasmus, by which is meant

[1] Aranearum multæ species sunt. Quæ ubi mordent, faciunt multum dolorem, ruborem, frigidum sudorem, et citrinum colorem. Aliquando quasi stranguriæ in urina duritiem, et virgæ extensionem, intra inguina, et genua, tetinositatem in stomacho. Linguæ extensionem, ut eorum sermo non possit discerni. *Vomunt humiditatem quasi araneæ telam*, et ventris emollitionem similiter, &c. De communibus medico cognitu necessariis locis. Lib. VIII. cap. 22. p. 235. Basil. 1539. fol.

[2] He lived in the middle of the eleventh century, and was a junior contemporary with *Constantine* of Africa. *J. Chr. Gottl. Ackermann*, Regimen sanitatis Salerni sive Scholæ Salernitanæ de conservanda bona valetudine præcepta. Stendal. 1790. 8vo. p. 38.

no doubt the Enthusiasmus of the Greek physicians.[1] We cite this phenomenon as an important forerunner of tarantism, under the conviction that we have thus added to the evidence that the development of this latter must have been founded on circumstances which existed from the twelfth to the end of the fourteenth century; for the origin of tarantism itself is referrible, with the utmost probability, to a period between the middle and the end of this century, and is consequently contemporaneous with that of the St. Vitus's dance (1374). The influence of the Roman Catholic religion, connected as this was, in the middle ages, with the pomp of processions, with public exercises of penance, and with innumerable practices which strongly excited the imaginations of its votaries, certainly brought the mind to a very favourable state for the reception of a nervous disorder. Accordingly, so long as the doctrines of Christianity were blended with so much mysticism, these unhallowed disorders prevailed to an important extent, and even in our own days we find them propagated with the greatest facility where the existence of superstition produces the same effect in more limited districts, as it once did among whole nations. But this is not all. Every country in Europe, and Italy perhaps more than any other, was visited during the middle ages by frightful plagues, which followed each other in such quick succession, that they gave the exhausted people scarcely any time for recovery. The oriental bubo-plague ravaged Italy[2] sixteen times between the years 1119 and 1340. Small-pox and measles were still more destructive than in modern times, and recurred as frequently. St. Anthony's fire was the dread of town and country; and that disgusting disease, the leprosy, which, in consequence of the crusades, spread its insinuating poison in all directions, snatched from the

[1] The passage is as follows: "Anteneasmon est species maniæ periculosa nimium. Irritantur tanquam maniaci, et in se manus injiciunt. Hi subito arripiuntur, *cum saltatione manuum et pedum, quia intra aurium cavernas quasi voces diversas sonare falso audiunt, ut sunt diversorum instrumentorum musicæ soni; quibus delectantur, ut statim saltent*, aut cursum velocem arripiant; subito arripientes gladium percutiunt se aut alios: morsibus se et alios attrectare non dubitant. Hos Latini percussores, alii dicunt dæmonis legiones esse, ut dum eos arripiunt, vexent et vulnerent. Diligentia eis imponenda est, quando istos sonos audierint, includantur, et post accessionis horas phlebotomentur, et venter eis moveatur. Cibos leves accipiant cum calida aqua, ut omnis ventositas, quæ in cerebro sonum facit, egeratur. In ipsa accessione silentium habeant. Quod si spumam per os ejecerint, *vel ex canis rabidi morsu causa fuerit*, intra septem dies moriuntur." *Garioponti*, medici vetustissimi, de morborum causis, accidentibus et curationibus. Libri VIII. Basil. 1536. 8vo. L. I. ch. 2. p. 27.

[2] *J. P. Papon.* De la peste, ou les époques mémorables de ce fléau. Paris. an 8. 8vo. Tome II. page 270. (1119. 1126. 1135. 1193. 1225. 1227. 1231. 1234. 1243. 1254. 1288. 1301. 1311. 1316. 1335. 1340.)

paternal hearth innumerable victims who, banished from human society, pined away in lonely huts, whither they were accompanied only by the pity of the benevolent and their own despair. All these calamities, of which the moderns have scarcely retained any recollection, were heightened to an incredible degree by the Black Death,[1] which spread boundless devastation and misery over Italy. Men's minds were everywhere morbidly sensitive; and as it happens with individuals whose senses, when they are suffering under anxiety, become more irritable, so that trifles are magnified into objects of great alarm, and slight shocks, which would scarcely affect the spirits when in health, give rise in them to severe diseases, so was it with this whole nation, at all times so alive to emotions, and at that period so sorely pressed with the horrors of death.

The bite of venomous spiders, or rather the unreasonable fear of its consequences, excited at such a juncture, though it could not have done so at an earlier period, a violent nervous disorder, which, like St. Vitus's dance in Germany, spread by sympathy, increasing in severity as it took a wider range, and still further extending its ravages from its long continuance. Thus, from the middle of the fourteenth century, the furies of *the Dance* brandished their scourge over afflicted mortals; and music, for which the inhabitants of Italy, now probably for the first time, manifested susceptibility and talent, became capable of exciting ecstatic attacks in those affected, and then furnished the magical means of exorcising their melancholy.

Sect. 3.—Increase.

At the close of the fifteenth century we find that Tarantism had spread beyond the boundaries of Apulia, and that the fear of being bitten by venomous spiders had increased. Nothing short of death itself was expected from the wound which these insects inflicted, and if those who were bitten escaped with their lives, they were said to be seen pining away in a desponding state of lassitude. Many became weak-sighted or hard of hearing, some lost the power of speech, and all were insensible to ordinary causes of excitement. Nothing but the flute or the cithern afforded them relief.[2] At the sound of these instruments they awoke as it were

[1] 1347 to 1350.

[2] *Athanasius Kircher* gives a full account of the instruments then in use, which differed very slightly from those of our days. Musurgia universalis, sive Ars magna consoni et dissoni. Romæ, 1650, fol. Tom. I. p. 477.

by enchantment, opened their eyes, and moving slowly at first, according to the measure of the music, were, as the time quickened, gradually hurried on to the most passionate dance. It was generally observable that country people, who were rude, and ignorant of music, evinced on these occasions an unusual degree of grace, as if they had been well practised in elegant movements of the body; for it is a peculiarity in nervous disorders of this kind, that the organs of motion are in an altered condition, and are completely under the control of the overstrained spirits. Cities and villages alike resounded throughout the summer season with the notes of fifes, clarinets, and Turkish drums; and patients where everywhere to be met with who looked to dancing as their only remedy. Alexander ab Alexandro,[1] who gives this account, saw a young man in a remote village who was seized with a violent attack of Tarantism. He listened with eagerness and a fixed stare to the sound of a drum, and his graceful movements gradually became more and more violent, until his dancing was converted into a succession of frantic leaps, which required the utmost exertion of his whole strength. In the midst of this overstrained exertion of mind and body the music suddenly ceased, and he immediately fell powerless to the ground, where he lay senseless and motionless until its magical effect again aroused him to a renewal of his impassioned performances.

At the period of which we are treating there was a general conviction, that by music and dancing the poison of the Tarantula was distributed over the whole body, and expelled through the skin, but that if there remained the slightest vestige of it in the vessels, this became a permanent germ of the disorder, so that the dancing fits might again and again be excited *ad infinitum* by music. This belief, which resembled the delusion of those insane persons who, being by artful management freed from the imagined causes of their sufferings, are but for a short time released from their false notions, was attended with the most injurious effects: for in consequence of it those affected necessarily became by degrees convinced of the incurable nature of their disorder. They expected relief, indeed, but not a cure, from music; and when the heat of summer awakened a recollection of the dancers of the preceding year, they, like the St. Vitus's dancers of the same period

[1] Genialium dierum Libri VI. Lugdun. Bat. 1673. 8vo. Lib. II. ch. 17. p. 398. *Alex. ab Alexandro*, a distinguished Neapolitan lawyer, lived from 1461 to 1523. The historian *Gaudentius Merula*, who became celebrated about 1536, makes only a very slight mention of the Tarantism. Memorabilium *Gaud. Merulæ* Novariensis opus, &c. Lugdun. 1656. 8vo. L. III. ch. 69. p. 251.

before St. Vitus's day, again grew dejected and misanthropic, until, by music and dancing, they dispelled the melancholy which had become with them a kind of sensual enjoyment.

Under such favourable circumstances it is clear that Tarantism must every year have made further progress. The number of those affected by it increased beyond all belief, for whoever had either actually been, or even fancied that he had been, once bitten by a poisonous spider or scorpion, made his appearance annually wherever the merry notes of the Tarantella resounded. Inquisitive females joined the throng and caught the disease, not indeed from the poison of the spider, but from the mental poison which they eagerly received through the eye; and thus the cure of the *Tarantati* gradually became established as a regular festival of the populace, which was anticipated with impatient delight.

Without attributing more to deception and fraud than to the peculiar nature of a progressive mental malady, it may readily be conceived that the cases of this strange disorder now grew more frequent. The celebrated Matthioli,[1] who is worthy of entire confidence, gives his account as an eye-witness. He saw the same extraordinary effects produced by music as Alexandro, for, however tortured with pain, however hopeless of relief the patients appeared, as they lay stretched on the couch of sickness, at the very first sounds of those melodies which had made an impression on them—but this was the case only with the Tarantellas composed expressly for the purpose—they sprang up as if inspired with new life and spirit, and, unmindful of their disorder, began to move in measured gestures, dancing for hours together without fatigue, until, covered with a kindly perspiration, they felt a salutary degree of lassitude, which relieved them for a time at least, perhaps even for a whole year, from their dejection and oppressive feeling of general indisposition. Alexandro's experience of the injurious effects resulting from a sudden cessation of the music was generally confirmed by Matthioli. If the clarinets and drums ceased for a single moment, which, as the most skilful players were tired out by the patients, could not but happen occasionally, they suffered their limbs to fall listless, again sank exhausted to the ground, and could find no solace but in a renewal of the dance. On this account care was taken to continue the music until exhaustion was produced; for it was better to pay a few extra musicians, who might relieve each other, than to permit the pa-

[1] *Petr. And. Matthioli* Commentarii in Dioscorid. Venet. 1565. fol. Lib. II. ch. 57. p. 362.

tient, in the midst of this curative exercise, to relapse into so deplorable a state of suffering. The attack consequent upon the bite of the Tarantula, Matthioli describes as varying much in its manner. Some became morbidly exhilarated, so that they remained for a long while without sleep, laughing, dancing, and singing in a state of the greatest excitement. Others, on the contrary, were drowsy. The generality felt nausea and suffered from vomiting, and some had constant tremors. Complete mania was no uncommon occurrence, not to mention the usual dejection of spirits and other subordinate symptoms.

Sect. 4.—Idiosyncracies.—Music.

Unaccountable emotions, strange desires, and morbid sensual irritations of all kinds, were as prevalent as in the St. Vitus's dance and similar great nervous maladies. So late as the sixteenth century patients were seen armed with glittering swords which, during the attack, they brandished with wild gestures, as if they were going to engage in a fencing match.[1] Even women scorned all female delicacy[2] and, adopting this impassioned demeanour, did the same; and this phenomenon, as well as the excitement which the Tarantula dancers felt at the sight of anything with metallic lustre, was quite common up to the period when, in modern times, the disease disappeared.[3]

The abhorrence of certain colours and the agreeable sensations produced by others, were much more marked among the excitable Italians than was the case in the St. Vitus's dance with the more phlegmatic Germans. Red colours, which the St. Vitus's dancers detested, they generally liked, so that a patient was seldom seen who did not carry a red handkerchief for his gratification, or greedily feast his eyes on any articles of red clothing worn by the by-standers. Some preferred yellow, others black colours, of which an explanation was sought, according to the prevailing notions of the times, in the difference of temperaments.[4] Others

[1] *Athanas. Kircher.* Magnes sive de Arte magnetica Opus. Rom. 1654. fol. p. 589.

[2] *Joann. Juvenis* de antiquitate et varia Tarentinorum fortuna Lib. VIII. Neapol. 1589. fol. Lib. II. ch. 17. p. 107. With the exception of the statement quoted, *Juvenis* has borrowed almost everything from *Matthioli*.

[3] *Simon. Alloys. Tudecius*, physician to Queen Christine, saw a case of this kind in July, 1656. *Bonet.* Medicina septentrionalis collatit. Genev. 1684. fol.

[4] *Epiphan. Ferdinand.* Centum historiæ seu observationes et casus medici. Venet. 1621. fol. Hist. LXXXI. p. 259. *Ferdinando*, a physician in Messapia at the commencement of the seventeenth century, has collected, with much diligence, the various statements respecting the Tarantism of his time. He "*was himself an eye-witness of it*" (p. 265), and is by far the most copious of all the old writers on this subject.

again were enraptured with green; and eye-witnesses describe this rage for colours as so extraordinary, that they can scarcely find words with which to express their astonishment. No sooner did the patients obtain a sight of the favourite colour than, new as the impression was, they rushed like infuriated animals towards the object, devoured it with their eager looks, kissed and caressed it in every possible way, and gradually resigning themselves to softer sensations, adopted the languishing expression of enamoured lovers, and embraced the handkerchief, or whatever other article it might be, which was presented to them, with the most intense ardour, while the tears streamed from their eyes as if they were completely overwhelmed by the inebriating impression on their senses.

The dancing fits of a certain Capuchin friar in Tarentum excited so much curiosity, that Cardinal Cajetano proceeded to the monastery, that he might see with his own eyes what was going on. As soon as the monk, who was in the midst of his dance, perceived the spiritual prince clothed in his red garments, he no longer listened to the Tarantella of the musicians, but with strange gestures endeavoured to approach the Cardinal, as if he wished to count the very threads of his scarlet robe, and to allay his intense longing by its odour. The interference of the spectators, and his own respect, prevented his touching it, and thus the irritation of his senses not being appeased, he fell into a state of such anguish and disquietude, that he presently sank down in a swoon, from which he did not recover until the Cardinal compassionately gave him his cape. This he immediately seized in the greatest ecstasy, and pressed now to his breast, now to his forehead and cheeks, and then again commenced his dance as if in the frenzy of a love fit.[1]

At the sight of colours which they disliked, patients flew into the most violent rage, and, like the St. Vitus's dancers when they saw red objects, could scarcely be restrained from tearing the clothes of those spectators who raised in them such disagreeable sensations.[2]

Another no less extraordinary symptom was the ardent longing for the sea which the patients evinced. As the St. John's dancers of the fourteenth century saw, in the spirit, the heavens open and display all the splendour of the saints, so did those who were suffering under the bite of the Tarantula feel themselves attracted to the boundless expanse of the blue ocean, and lost themselves in its contemplation. Some songs, which are still preserved,

[1] *Kircher*, loc. cit. pp. 588, 589.

[2] *Ferdinand.* p. 259.

marked this peculiar longing, which was moreover expressed by significant music, and was excited even by the bare mention of the sea.[1] Some, in whom this susceptibility was carried to the greatest pitch, cast themselves with blind fury into the blue waves,[2] as the St. Vitus's dancers occasionally did into rapid rivers. This condition, so opposite to the frightful state of hydrophobia, betrayed itself in others only in the pleasure afforded them by the sight of clear water in glasses. These they bore in their hands while dancing, exhibiting at the same time strange movements, and giving way to the most extravagant expressions of their feelings. They delighted also when, in the midst of the space allotted for this exercise, more ample vessels, filled with water, and surrounded by rushes and water plants, were placed, in which they bathed their heads and arms with evident pleasure.[3] Others there were who rolled about on the ground, and were, by their own desire, buried up to the neck in the earth, in order to alleviate the misery of their condition, not to mention an endless variety of other symptoms which showed the perverted action of the nerves.

All these modes of relief, however, were as nothing in comparison with the irresistible charms of musical sound. Attempts had indeed been made in ancient times to mitigate the pain of sciatica,[4] or the paroxysms of mania,[5] by the soft melody of the flute, and, what is still more applicable to the present purpose, to remove the danger arising from the bite of vipers [6] by the same means. This, however, was tried only to a very small extent. But after being bitten by the Tarantula, there was, according to popular opinion, no way of saving life except by music, and it was hardly considered as an exception to the general rule, that every now and then the bad effects of a wound were prevented by placing a

[1] For example:—

"Allu mari mi portati
Se voleti che mi sanati.
Allu mari, alla via:
Cosi m'ama la donna mia.
Allu mari allu mari:
Mentre campo, t'aggio amari."

Kircher, loc. cit. p. 592.—Appendix, No. V.

[2] *Ferdinand.* loc. cit. p. 257.

[3] *Kircher*, p. 589.

[4] *Plin.* Hist. Nat. Lib. XXVIII. ch. 2. p. 447. Ed. *Hard.*

[5] *Cael. Aurelian.* Chron. Lib. I. ch. 5. p. 335. Ed. *Amman.*

[6] *Democritus* and *Theophrastus* made mention of it. See *Gell.* Noct. Attic. Lib. IV. ch. 13.

ligature on the bitten limb, or by internal medicine, or that strong persons occasionally withstood the effects of the poison, without the employment of any remedies at all.[1] It was much more common, and is quite in accordance with the nature of so exquisite a nervous disease, to hear accounts of many who, when bitten by the Tarantula, perished miserably because the Tarantella, which would have afforded them deliverance, was not played to them.[2] It was customary, therefore, so early as the commencement of the seventeenth century, for whole bands of musicians to traverse Italy during the summer months, and, what is quite unexampled either in ancient or modern times, the cure of the *Tarantati* in the different towns and villages was undertaken on a grand scale. This season of dancing and music was called "the women's little carnival,"[3] for it was women more especially who conducted the arrangements; so that throughout the whole country they saved up their spare money, for the purpose of rewarding the welcome musicians, and many of them neglected their household employments to participate in this festival of the sick. Mention is even made of one benevolent lady (Mita Lupa) who had expended her whole fortune on this object.[4]

The music itself was of a kind perfectly adapted to the nature of the malady, and it made so deep an impression on the Italians, that even to the present time, long since the extinction of the disorder, they have retained the Tarantella, as a particular species of music employed for quick lively dancing. The different kinds of Tarantella were distinguished, very significantly, by particular names, which had reference to the moods observed in the patients. Whence it appears that they aimed at representing by these tunes, even the idiosyncracies of the mind as expressed in the countenance. Thus there was one kind of Tarantella which was called "Panno rosso," a very lively impassioned style of music, to which wild dithyrambic songs were adapted; another, called "Panno verde," which was suited to the milder excitement of the senses, caused by green colours, and set to Idyllian songs of verdant fields and shady groves. A third was named "Cinque tempi:" a fourth "Moresca," which was played to a Moorish dance; a fifth, "Catena?" and a sixth, with a very appropriate designation, "Spallata," as if it were only fit to be played to dancers who were lame in

[1] *Ferdinand.* p. 260.

[2] *Bagliv.* loc. cit. p. 618. From more decided statements, however, we learn, that of those who had been bitten only one or two in a thousand died. *Ferdinand.* p. 255.

[3] Il carnevaletto delle donne. *Bagliv.* p. 617.

[4] *Ferdinand.* pp. 254. 260.

the shoulder. This was the slowest and least in vogue of all.[1] For those who loved water they took care to select love songs, which were sung to corresponding music, and such persons delighted in hearing of gushing springs and rushing cascades and streams.[2] It is to be regretted that on this subject we are unable to give any further information, for only small fragments of songs, and a very few Tarantellas, have been preserved which belong to a period so remote as the beginning of the seventeenth, or at furthest the end of the sixteenth, century.[3]

The music was almost wholly in the Turkish style (aria Turchesca), and the ancient songs of the peasantry of Apulia, which increased in number annually, were well suited to the abrupt and lively notes of the Turkish drum and the shepherd's pipe. These two instruments were the favourites in the country, but others of all kinds were played in towns and villages, as an accompaniment to the dances of the patients and the songs of the spectators. If any particular melody was disliked by those affected, they indicated their displeasure by violent gestures expressive of aversion. They could not endure false notes, and it is remarkable that uneducated boors, who had never in their lives manifested any perception of the enchanting power of harmony, acquired, in this respect, an extremely refined sense of hearing, as if they had been initiated into the profoundest secrets of the musical art.[4] It was a matter of every day's experience, that patients showed a predilection for certain Tarantellas, in preference to others, which gave rise to the composition of a great variety of these dances. They were likewise very capricious in their partialities for particular instruments; so that some longed for the shrill notes of the trumpet, others for the softest music produced by the vibration of strings.[5]

Tarantism was at its greatest height in Italy in the seventeenth century, long after the St. Vitus's Dance of Germany had disappeared. Is was not the natives of the country only who were attacked by this complaint. Foreigners of every colour and of every race, negroes, gipsies, Spaniards, Albanians, were in like manner affected by it.[6] Against the effects produced by the Tarantula's bite, or by the sight of the sufferers, neither youth nor age afforded

[1] *Ferdinand.* p. 259. Slow music made the Tarantel dancers feel as if they were crushed: spezzati, minuzzati, p. 260.

[2] *A. Kircher*, loc. cit.

[3] See Appendix, No. V.

[4] *Bagliv.* loc. cit. p. 623.

[5] *A. Kircher*, loc. cit.

[6] *Ferdinand.* p. 262.

any protection; so that even old men of ninety threw aside their crutches at the sound of the Tarantella, and, as if some magic potion, restorative of youth and vigour, were flowing through their veins, joined the most extravagant dancers.[1] Ferdinando saw a boy five years old seized with the dancing mania,[2] in consequence of the bite of a tarantula; and, what is almost past belief, were it not supported by the testimony of so credible an eye-witness, even deaf people were not exempt from this disorder, so potent in its effect was the very sight of those affected, even without the exhilarating emotions caused by music.[3]

Subordinate nervous attacks were much more frequent during this century than at any former period, and an extraordinary icy coldness was observed in those who were the subjects of them; so that they did not recover their natural heat until they had engaged in violent dancing.[4] Their anguish and sense of oppression forced from them a cold perspiration; the secretion from the kidneys was pale,[5] and they had so great a dislike to everything cold, that when water was offered them they pushed it away with abhorrence. Wine, on the contrary, they all drank willingly, without being heated by it, or in the slightest degree intoxicated.[6] During the whole period of the attack they suffered from spasms in the stomach, and felt a disinclination to take food of any kind. They used to abstain some time before the expected seizures from meat and from snails, which they thought rendered them more severe,[7] and their great thirst for wine may, therefore, in some measure, be attributable to the want of a more nutritious diet; yet the disorder of the nerves was evidently its chief cause, and the loss of appetite, as well as the necessity for support by wine, were its effects. Loss of voice, occasional blindness,[8] vertigo, complete insanity, with sleeplessness, frequent weeping without any ostensible cause, were all usual symptoms. Many patients found relief from being placed in swings or rocked in cradles;[9] others required to be roused from their state of suffering by severe blows on the soles of their feet; others beat themselves, without any intention of making a display, but solely for the purpose of allaying the intense nervous irritation which they felt; and a considerable number were seen with their bellies swollen,[10] like those of the St.

[1] This is said of an old man of Avetrano, who was ninety-four years of age. pp. 254. 257. [2] Idem, p. 261.

[3] *Ferdinando* saw a man who was hard of hearing listen with great eagerness during the dance, and endeavour to approach the drums and fifes as nearly as possible. P. 258.

[4] Idem, p. 260. [5] Idem, p. 256. [6] Idem, p. 260. [7] Idem, p. 261.

[8] Idem, p. 256. [9] Idem, p. 258. [10] Idem, p. 257.

John's dancers, while the violence of the intestinal disorder was indicated in others by obstinate constipation or diarrhœa and vomiting.[1] These pitiable objects gradually lost their strength and their colour, and creeping about with injected eyes, jaundiced complexions, and inflated bowels, soon fell into a state of profound melancholy, which found food and solace in the solemn tolling of the funeral bell, and in an abode among the tombs of cemeteries, as is related of the Lycanthropes of former times.

The persuasion of the inevitable consequences of being bitten by the tarantula, exercised a dominion over men's minds which even the healthiest and strongest could not shake off. So late as the middle of the sixteenth century, the celebrated Fracastoro found the robust bailiff of his landed estate groaning, and, with the aspect of a person in the extremity of despair, suffering the very agonies of death, from a sting in the neck, inflicted by an insect which was believed to be a tarantula. He kindly administered, without delay, a potion of vinegar and Armenian bole, the great remedy of those days for the plague and all kinds of animal poisons, and the dying man was, as if by a miracle, restored to life and the power of speech.[2] Now, since it is quite out of the question that the bole could have anything to do with the result in this case, notwithstanding Fracastoro's belief in its virtues, we can only account for the cure by supposing, that a confidence in so great a physician prevailed over this fatal disease of the imagination, which would otherwise have yielded to scarcely any other remedy except the tarantella. Ferdinando was acquainted with women who, for thirty years in succession, had overcome the attacks of this disorder by a renewal of their annual dance—so long did they maintain their belief in the yet undestroyed poison of the tarantula's bite, and so long did that mental affection continue to exist, after it had ceased to depend on any corporeal excitement.[3]

Wherever we turn we find that this morbid state of mind prevailed, and was so supported by the opinions of the age, that it needed only a stimulus in the bite of the tarantula, and the supposed certainty of its very disastrous consequences, to originate this violent nervous disorder. Even in Ferdinando's time there were many who altogether denied the poisonous effects of the tarantula's bite, whilst they considered the disorder, which annually set Italy in commotion, to be a melancholy depending on the

[1] *Ferdinand.* p. 256.
[2] De Contag. Lib. III. ch. 2, p. 212. Opera Lugdun. 1591. 8vo.
[3] De Contag. p. 254.

imagination.[1] They dearly expiated this scepticism, however, when they were led, with an inconsiderate hardihood, to test their opinions by experiment; for many of them became the subjects of severe tarantism, and even a distinguished prelate, Jo. Baptist Quinzato, Bishop of Foligno, having allowed himself, by way of a joke, to be bitten by a tarantula, could obtain a cure in no other way than by being, through the influence of the tarantella, compelled to dance.[2] Others among the clergy, who wished to shut their ears against music, because they considered dancing derogatory to their station, fell into a dangerous state of illness by thus delaying the crisis of the malady, and were obliged at last to save themselves from a miserable death by submitting to the unwelcome but sole means of cure.[3] Thus it appears that the age was so little favourable to freedom of thought, that even the most decided sceptics, incapable of guarding themselves against the recollection of what had been presented to the eye, were subdued by a poison, the power of which they had ridiculed, and which was in itself inert in its effect.

Sect. 5.—Hysteria.

Different characteristics of morbidly excited vitality having been rendered prominent by tarantism in different individuals, it could not but happen that other derangements of the nerves would assume the form of this, whenever circumstances favoured such a transition. This was more especially the case with hysteria, that proteiform and mutable disorder, in which the imaginations, the superstitions, and the follies of all ages have been evidently reflected. The "Carnevaletto delle Donne" appeared most opportunely for those who were hysterical. Their disease received from it, as it had at other times from other extraordinary customs, a peculiar direction; so that whether bitten by the tarantula or not, they felt compelled to participate in the dances of those affected, and to make their appearance at this popular festival, where they had an opportunity of triumphantly exhibiting their sufferings. Let us here pause to consider the kind of life which the women in Italy led. Lonely, and deprived by cruel custom of social intercourse, that fairest of all enjoyments, they dragged on a miserable existence. Cheerfulness and an inclination to sensual pleasures passed into compulsory idleness, and, in many, into black despondency.[4]

[1] De Contag. p. 254. [2] Idem, p. 262. [3] Idem, p. 261.

[4] "The imaginations of women are always more excitable than those of men, and

Their imaginations became disordered—a pallid countenance and oppressed respiration bore testimony to their profound sufferings. How could they do otherwise, sunk as they were in such extreme misery, than seize the occasion to burst forth from their prisons, and alleviate their miseries by taking part in the delights of music. Nor should we here pass unnoticed a circumstance which illustrates, in a remarkable degree, the psychological nature of hysterical sufferings, namely, that many chlorotic females, by joining the dancers at the Carnevaletto, were freed from their spasms and oppression of breathing for the whole year, although the corporeal cause of their malady was not removed.[1] After such a result, no one could call their self-deception a mere imposture, and unconditionally condemn it as such.

This numerous class of patients certainly contributed not a little to the maintenance of the evil, for their fantastic sufferings, in which dissimulation and reality could scarcely be distinguished even by themselves, much less by their physicians, were imitated, in the same way as the distortions of the St. Vitus's dancers, by the impostors of that period. It was certainly by these persons also that the number of subordinate symptoms was increased to an endless extent, as may be conceived from the daily observation of hysterical patients, who, from a morbid desire to render themselves remarkable, deviate from the laws of moral propriety. Powerful sexual excitement had often the most decided influence over their

they are therefore susceptible of every folly when they lead a life of strict seclusion, and their thoughts are constantly turned inwards upon themselves. Hence in orphan asylums, hospitals, and convents, the nervous disorder of one female so easily and quickly becomes the disorder of all. I have read in a good medical work that a nun, in a very large convent in France, began to mew like a cat; shortly afterwards other nuns also mewed. At last all the nuns mewed together every day at a certain time for several hours together. The whole surrounding Christian neighbourhood heard, with equal chagrin and astonishment, this daily cat-concert, which did not cease until all the nuns were informed that a company of soldiers were placed by the police before the entrance of the convent, and that they were provided with rods, and would continue whipping them until they promised not to mew any more.

"But of all the epidemics of females which I myself have seen in Germany, or of which the history is known to me, the most remarkable is the celebrated Convent-epidemic of the fifteenth century, which Cardan describes, and which peculiarly proves what I would here enforce. A nun in a German nunnery fell to biting all her companions. In the course of a short time all the nuns of this convent began biting each other. The news of this infatuation among the nuns soon spread, and it now passed from convent to convent throughout a great part of Germany, principally Saxony and Brandenburg. It afterwards visited the nunneries of Holland, and at last the nuns had the biting mania even as far as Rome."—*Zimmermann* on Solitude, Vol. II. Leipsig. 1784.—*Transl. note.*

[1] *Georg. Baglivi*, Diss. de Anatome, morsu et effectibus Tarantulæ. pp. 616, 617. Opp. Lugdun. 1710. 4to.

condition. Many of them exposed themselves in the most indecent manner, tore their hair out by the roots, with howling and gnashing of their teeth; and when, as was sometimes the case, their unsatisfied passion hurried them on to a state of frenzy, they closed their existence by self-destruction; it being common at that time for these unfortunate beings to precipitate themselves into the wells.[1]

It might hence seem that, owing to the conduct of patients of this description, so much of fraud and falsehood would be mixed up with the original disorder, that having passed into another complaint, it must have been itself destroyed. This, however, did not happen in the first half of the seventeenth century; for as a clear proof that Tarantism remained substantially the same and quite unaffected by Hysteria, there were in many places, and in particular at Messapia, fewer women affected than men, who in their turn were, in no small proportion, led into temptation by sexual excitement.[2] In other places, as for example at Brindisi, the case was reversed, which may, as in other complaints, be in some measure attributable to local causes. Upon the whole it appears, from concurrent accounts, that women by no means enjoyed the distinction of being attacked by Tarantism more frequently than men.

It is said that the cicatrix of the tarantula bite, on the yearly or half-yearly return of the fit, became discoloured,[3] but on this point the distinct testimony of good observers is wanting to deprive the assertion of its utter improbability.

It is not out of place to remark here, that about the same time that Tarantism attained its greatest height in Italy, the bite of venomous spiders was more feared in distant parts of Asia, likewise, than it had ever been within the memory of man. There was this difference, however, that the symptoms supervening on the occurrence of this accident were not accompanied by the Apulian nervous disorder, which, as has been shown in the foregoing pages, had its origin rather in the melancholic temperament of the inhabitants of the south of Italy, than in the nature of the tarantula poison itself. This poison is therefore doubtless to be considered only as a remote cause of the complaint, which, but for that temperament, would be inadequate to its production. The Persians employed a very rough means of counteracting the bad consequences of a poison of this sort. They drenched the wound-

[1] *Ferdinando*, p. 257. [2] Idem, pp. 256, 257, 258.

[3] Idem, p. 258.

ed person with milk, and then, by violent rotatory motion in a suspended box, compelled him to vomit.[1]

Sect. 6.—Decrease.

The Dancing Mania, arising from the tarantula bite, continued, with all those additions of self-deception, and of the dissimulation which is such a constant attendant on nervous disorders of this kind, through the whole course of the seventeenth century. It was indeed gradually on the decline, but up to the termination of this period, showed such extraordinary symptoms, that Baglivi, one of the best physicians of that time, thought he did a service to science by making them the subject of a dissertation.[2] He repeats all the observations of Ferdinando, and supports his own assertions by the experience of his father, a physician at Lecce, whose testimony, as an eye-witness, may be admitted as unexceptionable.[3]

The immediate consequence of the tarantula bite, the supervening nervous disorder, and the aberrations and fits of those who suffered from Hysteria, he describes in a masterly style, nor does he ever suffer his credulity to diminish the authenticity of his account, of which he has been unjustly accused by later writers.

Finally, Tarantism has declined more and more in modern times, and is now limited to single cases. How could it possibly have maintained itself unchanged in the eighteenth century, when all the links which connected it with the middle ages had long since been snapped asunder? Imposture[4] grew more frequent,

[1] *Adam Olearius.* Vermehrte Moscowitische und Persianische Reisebeschreibung. Travels in Muscovy and Persia. Schleswig, 1663. fol. Book IV. p. 496.

[2] *Georg. Baglivi*, Dissertatio VI. de Anatome, morsu et effectibus Tarantulæ (written in 1595). Opera omnia, Lugdun. 1710. 4to. p. 599.

[3] This physician once saw three patients, who were evidently suffering from a malignant fever, and whose illness was attributed by the by-standers to the bite of the tarantula, forced to dance by having music played to them. One of them died on the spot, and the two others very shortly after. Ch. 7. p. 616.

[4] Among the instances in which imposture successfully taxes popular credulity, perhaps there is none more remarkable at the present day than that afforded by the Psylli of Egypt, a country which furnishes another illustration of our author's remark at the commencement of the next chapter. This sect, according to the testimony of modern writers, continues to exhibit the same strange spectacles as the ancient serpent-eaters of Cyrene, described by Strabo, 17 Dio. 51. c. 14. Lucan, 9. v. 894. 937. Herodot. 4. c. 173. Paus. 9. c. 28. Savary states that he witnessed a procession at Rosetta, where a band of these seeming madmen, with bare arms and wild demeanour, held enormous serpents in their hands which writhed round their bodies and endeavoured to make their escape. These Psylli, grasping them by the neck, tore them with their teeth and ate them up alive, the blood streaming down from their polluted mouths. Others of the

and wherever the disease still appeared in its genuine form, its chief cause, namely, a peculiar cast of melancholy, which formerly had been the temperament of thousands, was now possessed only occasionally by unfortunate individuals. It might therefore not unreasonably be maintained, that the Tarantism of modern times bears nearly the same relation to the original malady, as the St. Vitus's dance which still exists, and certainly has all along existed, bears in certain cases to the original dancing mania of the dancers of St. John.

To conclude. Tarantism, as a real disease, has been denied *in toto*, and stigmatized as an imposition, by most physicians and naturalists, who in this controversy have shown the narrowness of their views and their utter ignorance of history. In order to support their opinion they have instituted some experiments, apparently favourable to it, but under circumstances altogether

Psylli were striving to wrest their prey from them, so that it seemed a struggle among them who should devour a serpent. The populace followed them with amazement, and believed their performances to be miraculous. Accordingly they pass for persons inspired, and possessed by a spirit who destroys the effect of the serpent.

Sonnini, though not so fortunate as to witness a public exhibition of such performances, yet gives the following interesting account of what he justly calls a remarkable specimen of the extravagance of man. After adverting to the superstitious origin of the sect, he goes on to say that a Saadi, or serpent-eater, came to his apartment accompanied by a priest of his sect. The priest carried in his bosom a large serpent of a dusky green and copper colour, which he was continually handling; and after having recited a prayer, he delivered it to the Saadi. The narrative proceeds:—"With a vigorous hand the Saadi seized the serpent, which twisted itself round his naked arm. He began to appear agitated; his countenance was discomposed; his eyes rolled; he uttered terrible cries, bit the animal in the head, and tore off a morsel, which we saw him chew and swallow. On this his agitation became convulsive; his howlings were redoubled, his limbs writhed, his countenance assumed the features of madness, and his mouth, extended by terrible grimaces, was all in a foam. Every now and then he devoured a fresh morsel of the reptile. Three men endeavoured to hold him, but he dragged them all three round the chamber. His arms were thrown about with violence on all sides, and struck everything within their reach. Eager to avoid him, M. Forneti and I were obliged sometimes to cling to the wall, to let him pass and escape his blows. We could have wished the madman far away. At length the priest took the serpent from him, but his madness and convulsions did not cease immediately; he bit his hands, and his fury continued. The priest then grasped him in his arms, passed his hand gently down his back, lifted him from the ground, and recited some prayers. By degrees his agitation diminished, and subsided into a state of complete lassitude, in which he remained a few moments.

"The Turks who were present at this ridiculous and disgusting ceremony were firmly persuaded of the reality of this religious fury; and it is very certain that, whether it were reality or imposture, it is impossible to see the transports of rage and madness exhibited in a more striking manner, or have before your eyes a man more calculated to inspire terror."—*Hunter's Translation of Sonnini's Travels*, 8vo. 1799.—*Transl. note.*

inapplicable, since, for the most part, they selected, as the subjects of them, none but healthy men, who were totally uninfluenced by a belief in this once so dreaded disease. From individual instances of fraud and dissimulation, such as are found in connexion with most nervous affections without rendering their reality a matter of any doubt, they drew a too hasty conclusion respecting the general phenomenon, of which they appeared not to know that it had continued for nearly four hundred years, having originated in the remotest periods of the middle ages. The most learned and the most acute among these sceptics is Serao the Neapolitan.[1] His reasonings amount to this, that he considers the disease to be a very marked form of melancholia, and compares the effect of the tarantula bite upon it to stimulating, with spurs, a horse which is already running. The reality of that effect he thus admits, and therefore directly confirms what in appearance only he denies.[2] By shaking the already vacillating belief in this disorder he is said to have actually succeeded in rendering it less frequent, and in setting bounds to imposture;[3] but this no more disproves the reality of its existence, than the oft-repeated detection of imposition has been able, in modern times, to banish magnetic sleep from the circle of natural phenomena, though such detection has, on its side, rendered more rare the incontestable effects of animal magnetism. Other physicians and naturalists[4] have delivered their

[1] *Franc. Serao*, della Tarantola o vero Falangio di Puglia. Napol. 1742.—See *Thom. Fasani*, De vita, muniis et scriptis *Franc. Serai*, &c. Commentarius. Neapol. 1784. 8vo. p. 76. et seq.

[2] *Thom. Fasani*, De vita, muniis et scriptis *Franc. Serai*, &c. Commentarius. p. 88.

[3] Idem, p. 89.

[4] *H. Mercurialis*, de Venenis et Morbis Venenosis (Venet. 1601. 4to. Lib. II. ch. 6. p. 39), repeats the silly tale, that those who were bitten continued, during their paroxysm, to be occupied with whatever they had been engaged in at the time they received the bite, and proves, by a fact which had been communicated to him, that already, in the sixteenth century, they were able to distinguish impostures from those who had been really bitten. *H. Cardani*, de Subtilitate, Libri XXI. Basil. 1560. 8vo. Lib. IX. p. 635. The baneful effect of the venom of the tarantula was obviated, not so much by music as by the great exertion used in dancing. Compare *J. Cæs. Scaliger*. Exoteric. Exercitt. Libri XV. de Subtilitate. Francof. 1612. 8vo. Ex. 185. p. 610.—*J. M. Fehr*, Anchora sacra vel Scorzonera. Jen. 1666. 8vo. p. 127. From *Alexander ab Alexandro*, and several later writers.—*Stalpart van der Wiel*, Observatt. rarior. Lugdun. Bat. 1687. 8vo. Cent. I. Obs. C. p. 424. According to *Kircher*.—*Rod. a. Castro*, Medicus politicus. Hamburg, 1614. 4to. Lib. IV. ch. 16. p. 275. According to *Matthioli*.—*D. Cirillo*, Some account of the Tarantula, Philosoph. Trans. Vol. LX. 1770. describes Tarantism as a common imposture. So also does *J. A. Unzer*, The Physician, Vol. II. pp. 473. 640, vol. III. pp. 466. 526. 528. 529. 530. 533. 553; likewise *A. F. Büsching*, Eigene Gedanken und gesammelte Nachrichten von der Tarantel, welche zur gänzlichen Vertilgung des Vorurtheils von der Schädlichkeit ihres Bisses, und der Heilung dessel-

sentiments on Tarantism, but as they have not possessed an enlarged knowledge of its history, their views do not merit particular exposition. It is sufficient for the comprehension of every one, that we have presented the facts freed from all extraneous speculation.

CHAPTER III.

DANCING MANIA IN ABYSSINIA.

Sect. 1.—Tigretier.

Both the St. Vitus's dance and Tarantism belonged to the ages in which they appeared. They could not have existed under the same latitude at any other epoch, for at no other period were the circumstances which prepared the way for them combined in a similar relation to each other and the mental as well as corporeal temperaments of nations, which depend on causes such as have

ben durch Musik, dienlich und hinlänglich sind. Observations and statements respecting the Tarantula, which suffice entirely to set aside the prejudice respecting the venom of its bite, as also its cure by music. Berlin, 1772. 8vo. A very shallow criticism. —*P. Forest.* Observatt. et Curatt. medicinal. Libri 30, 31 et 32. Francof. 1509. fol. Ob. XII. p. 41. diligently compiled from his predecessors.—*Phil. Camerar.* Operæ horarum subcisivarum. Francof. 1658. 4to. Cent. II. cap. 81. p. 317.—*R. Mead*, a mechanical account of poisons: London, 1747. 8vo. p. 99. contends for the reality of Tarantism with *R. Boyle*, An essay of the great effects of even languid and unheeded motion, &c. London, 1685. ch. VI.—So also *J. F. Cartheuser*, Fundamenta pathologiæ et therapiæ. Francof. a. V. 1758. 8vo. Tom. I. p. 334. *Th. Willis* de morbis convulsivis. cap. VII. p. 492. Opp. Lugdun. 1681. 4to. According to *Gassendi*, *Ferdinando*, *Kircher*, and others.—*L. Valetta*, de Phalangio Apulo opusculum. Neapol. 1706. —*Thom. Cornelio* (professor at Naples in the middle of the seventeenth century). Letter to *J. Dodington* concerning some observations made of persons pretending to be stung by Tarantulas. Phil. Transactions, No. 83. p. 4066. 1672. considers Tarantism to be St. Vitus's dance.—*Jos. Lanzoni*, de Venenis, cap. 57. p. 140. Opp. Lausann. 1738. 4to. Tom. I. mostly from *Baglivi*.—*J. Schenk*, a *Grafenberg*. Observatt. Medicar. Lib. VII. Obs. 122. p. 792. Tom. II. Ed. Francof. 1600. 8vo. was himself an eye-witness. —*Wolfg. Senguerd*, Tractatus physicus de Tarantula. Lugd. Bat. 1668. 12mo.—*Herm. Grube*, De ictu Tarantulæ et vi musices in eius curatione conjecturæ physico-medicæ. Francof. 1679. 8vo.—*Athan. Kircher*, Musurgia universalis. Rom. 1650. fol. Tom. II. IX. ch. 4. p. 218.—*M. Köhler*, in den Svenska Vetenskaps Academiens Handlingar. 1758. p. 29. Transactions of the Swedish Academy of Sciences.—Berlin Collection for the Furtherance of the Science of Medicine. Vol. V. Pt. 1. p. 53. 1772.—*Burserii* Institutiones medic. pract. tom. III. p. 1. cap. 7. § 219. p. 159. ed. *Hecker*.—*J. S. Halle*, Gifthistorie. History of Poisons, Berlin, 1786. 8vo.—*Blumenbach*, Naturgeschichte, Natural History, p. 412.—*E. F. Leonhardt*, Diss. de Tarantismo, Berol. 1827. 8vo. and many others.

been stated, are as little capable of renewal as the different stages of life in individuals. This gives so much the more importance to a disease but cursorily alluded to in the foregoing pages, which exists in Abyssinia, and which nearly resembles the original mania of the St. John's dancers, inasmuch as it exhibits a perfectly similar ecstacy, with the same violent effect on the nerves of motion. It occurs most frequently in the Tigrè country, being thence called Tigretier, and is probably the same malady which is called in the Æthiopian language Astarāgaza.[1] On this subject we will introduce the testimony of Nathaniel Pearce,[2] an eye-witness, who resided nine years in Abyssinia. "The Tigretier," says he, "is more common among the women than among the men. It seizes the body as if with a violent fever, and from that turns to a lingering sickness, which reduces the patients to skeletons, and often kills them, if the relations cannot procure the proper remedy. During this sickness their speech is changed to a kind of stuttering, which no one can understand but those afflicted with the same disorder. When the relations find the malady to be the real *tigretier*, they join together to defray the expenses of curing it; the first remedy they in general attempt, is to procure the assistance of a learned Dofter, who reads the Gospel of St. John,[3] and drenches the patient with cold water daily for the space of seven days—an application that very often proves fatal. The most effectual cure, though far more expensive than the former, is as follows:—The relations hire, for a certain sum of money, a band of trumpeters, drummers, and fifers, and buy a quantity of liquor; then all the young men and women of the place assemble at the patient's house, to perform the following most extraordinary ceremony.

"I was once called in by a neighbour to see his wife, a very young woman, who had the misfortune to be afflicted with this disorder; and the man being an old acquaintance of mine, and always a close comrade in the camp, I went every day when at

[1] This may, however, be considered merely as a conjecture, founded upon the following passage in *Ludolf's* Lexicon Æthiopic. Ed. 2da. Francof. 1699. fol. p. 142. *Astarāgaza*, de vexatione quadam diabolica accipitur. Marc. i. 26. ix. 18. Luc. ix. 39. Græcus habet σπαράττειν, vellicare, discerpere. *Sed Æthiopes, teste Gregorio, pro morbo quodam accipiunt, quo quis perpetuo pedes agitare et quasi calcitrare cogitur.* Fortassis est Saltatio S. Viti, vulgo St. Veitstanz.

[2] The Life and Adventures of *Nathaniel Pearce*, written by himself, during a residence in Abyssinia, from the year 1810 to 1819. London, 1831. 8vo. Vol. I. ch. ix. p. 290.

[3] The Evangelist and *St. John* the Baptist have been at all times, and among all nations, confounded with each other, so that the relation of the latter to one and the same phenomenon in such different ages and climates is very probable.

home, to see her, but I could not be of any service to her, though she never refused my medicines. At this time, I could not understand a word she said, although she talked very freely, nor could any of her relations understand her. She could not bear the sight of a book or a priest, for at the sight of either, she struggled, and was apparently seized with acute agony, and a flood of tears, like blood mingled with water, would pour down her face from her eyes. She had lain three months in this lingering state, living upon so little that it seemed not enough to keep a human body alive; at last, her husband agreed to employ the usual remedy, and, after preparing for the maintenance of the band, during the time it would take to effect the cure, he borrowed from all his neighbours their silver ornaments, and loaded her legs, arms, and neck with them.

"The evening that the band began to play, I seated myself close by her side as she lay upon the couch, and about two minutes after the trumpets had begun to sound, I observed her shoulders begin to move, and soon afterwards her head and breast, and in less than a quarter of an hour she sat upon her couch. The wild look she had, though sometimes she smiled, made me draw off to a greater distance, being almost alarmed to see one nearly a skeleton move with such strength; her head, neck, shoulders, hands, and feet, all made a strong motion to the sound of the music, and in this manner she went on by degrees, until she stood up on her legs upon the floor. Afterwards she began to dance, and at times to jump about, and at last, as the music and noise of the singers increased, she often sprang three feet from the ground. When the music slackened, she would appear quite out of temper, but when it became louder, she would smile and be delighted. During this exercise, she never showed the least symptom of being tired, though the musicians were thoroughly exhausted; and when they stopped to refresh themselves by drinking and resting a little, she would discover signs of discontent.

"Next day, according to the custom in the cure of this disorder, she was taken into the market-place, where several jars of *maize* or *tsug* were set in order by the relations, to give drink to the musicians and dancers. When the crowd had assembled and the music was ready, she was brought forth and began to dance and throw herself into the maddest postures imaginable, and in this manner she kept on the whole day. Towards evening she began to let fall her silver ornaments from her neck, arms, and legs, one at a time, so that in the course of three hours she was

stripped of every article. A relation continually kept going after her as she danced, to pick up the ornaments, and afterwards delivered them to the owners from whom they were borrowed. As the sun went down, she made a start with such swiftness, that the fastest runner could not come up with her, and when at the distance of about two hundred yards, she dropped on a sudden, as if shot. Soon afterwards, a young man, on coming up with her, fired a matchlock over her body, and struck her upon the back with the broad side of his large knife, and asked her name, to which she answered as when in her common senses—a sure proof of her being cured; for, during the time of this malady, those afflicted with it never answer to their Christian names. She was now taken up in a very weak condition and carried home, and a priest came and baptized her again in the name of the Father, Son, and Holy Ghost, which ceremony concluded her cure. Some are taken in this manner to the market-place for many days before they can be cured, and it sometimes happens that they cannot be cured at all. I have seen them in these fits dance with a *bruly*, or bottle of maize, upon their heads, without spilling the liquor, or letting the bottle fall, although they have put themselves into the most extravagant postures.

"I could not have ventured to write this from hearsay, nor could I conceive it possible, until I was obliged to put this remedy in practice upon my own wife,[1] who was seized with the same disorder, and then I was compelled to have a still nearer view of this strange disorder. I at first thought that a whip would be of some service, and one day attempted a few strokes when unnoticed by any person, we being by ourselves, and I having a strong suspicion that this ailment sprang from the weak minds of women, who were encouraged in it for the sake of the grandeur, rich dress, and music which accompany the cure. But how much was I surprised, the moment I struck a light blow, thinking to do good, to find that she became like a corpse, and even the joints of her fingers became so stiff that I could not straighten them; indeed, I really thought that she was dead, and immediately made it known to the people in the house that she had fainted, but did not tell them the cause, upon which they immediately brought music, which I had for many days denied them, and which soon revived her; and I then left the house to her relations to cure her at my expense, in the manner I have before mentioned, though it took a much longer time to cure my wife than the woman I have just given

[1] She was a native Greek.

an account of. One day I went privately, with a companion, to see my wife dance, and kept a short distance, as I was ashamed to go near the crowd. On looking stedfastly upon her, while dancing or jumping, more like a deer than a human being, I said that it certainly was not my wife; at which my companion burst into a fit of laughter, from which he could scarcely refrain all the way home. Men are sometimes afflicted with this dreadful disorder, but not frequently. Among the Amhara and Galla it is not so common."

Such is the account of Pearce, who is every way worthy of credit, and whose lively description renders the traditions of former times respecting the St. Vitus's dance and tarantism intelligible, even to those who are sceptical respecting the existence of a morbid state of the mind and body of the kind described, because, in the present advanced state of civilization among the nations of Europe, opportunities for its development no longer occur. The credibility of this energetic, but by no means ambitious man, is not liable to the slightest suspicion, for, owing to his want of education, he had no knowledge of the phenomena in question, and his work evinces throughout his attractive and unpretending impartiality.

Comparison is the mother of observation, and may here elucidate one phenomenon by another—the past by that which still exists. Oppression, insecurity, and the influence of a very rude priestcraft, are the powerful causes which operated on the Germans and Italians of the middle ages, as they now continue to operate on the Abyssinians of the present day. However these people may differ from us in their descent, their manners and their customs, the effects of the above-mentioned causes are the same in Africa as they were in Europe, for they operate on man himself independently of the particular locality in which he may be planted; and the condition of the Abyssinians of modern times is, in regard to superstition, a mirror of the condition of the European nations in the middle ages. Should this appear a bold assertion, it will be strengthened by the fact, that in Abyssinia, two examples of superstitions occur, which are completely in accordance with occurrences of the middle ages that took place contemporarily with the dancing mania. *The Abyssinians have their Christian flagellants, and there exists among them a belief in a Zoomorphism, which presents a lively image of the lycanthropy of the middle ages.* Their flagellants are called Zackarys. They are united into a separate Christian fraternity, and make their

processions through the towns and villages with great noise and tumult, scourging themselves till they draw blood, and wounding themselves with knives.[1] They boast that they are descendants of St. George. It is precisely in Tigrè, the country of the Abyssinian dancing mania, where they are found in the greatest numbers, and where they have, in the neighbourhood of Axum, a church of their own, dedicated to their patron saint, *Oun Arvel.* Here there is an ever-burning lamp, and they contrive to impress a belief that this is kept alight by supernatural means. They also here keep a holy water, which is said to be a cure for those who are affected by the dancing mania.

The Abyssinian Zoomorphism is a no less important phenomenon, and shows itself in a manner quite peculiar. The blacksmiths and potters form, among the Abyssinians, a society or caste called in Tigrè *Tebbib*, and in Amhara *Buda*, which is held in some degree of contempt, and excluded from the sacrament of the Lord's Supper, because it is believed that they can change themselves into hyænas and other beasts of prey, on which account they are feared by everybody, and regarded with horror. They artfully contrive to keep up this superstition, because by this separation they preserve a monopoly of their lucrative trades, and as in other respects they are good Christians (but few Jews or Mahomedans live among them), they seem to attach no great consequence to their excommunication. As a badge of distinction, they wear a golden earring, which is frequently found in the ears of hyænas that are killed, without its having ever been discovered how they catch these animals, so as to decorate them with this strange ornament, and this removes, in the minds of the people, all doubt at to the supernatural powers of the smiths and potters.[2] To the Budas is also ascribed the gift of enchantment, especially that of the influence of the evil eye.[3] They nevertheless live unmolested, and are not condemned to the flames by fanatical priests, as the lycanthropes were in the middle ages.

[1] *Pearce*, p. 289. Compare p. 34.—*E. G. Förstemann*, Die christlichen Geisslergesellschaften. The Christian Societies of Flagellants. Halle, 1828. 8vo.

[2] Idem, loc. cit.

[3] Among the ancient Greeks *βασκήσις*. This superstition is more or less developed among all the nations of the earth, and has not yet entirely disappeared from Europe.

CHAPTER IV.

SYMPATHY.

IMITATION—compassion—sympathy, these are imperfect designations for a common bond of union among human beings—for an instinct which connects individuals with the general body, which embraces with equal force, reason and folly, good and evil, and diminishes the praise of virtue as well as the criminality of vice. In this impulse there are degrees, but no essential differences, from the first intellectual efforts of the infant mind, which are in a great measure based on imitation, to that morbid condition of the soul in which the sensible impression of a nervous malady fetters the mind, and finds its way, through the eye, directly to the diseased texture, as the electric shock is propagated by contact from body to body. To this instinct of imitation, when it exists in its highest degree, is united a loss of all power over the will, which occurs as soon as the impression on the senses has become firmly established, producing a condition like that of small animals when they are fascinated by the look of a serpent. By this mental bondage, morbid sympathy is clearly and definitely distinguished from all subordinate degrees of this instinct, however closely allied the imitation of a disorder may seem to be to that of a mere folly, of an absurd fashion, of an awkward habit in speech and manner, or even of a confusion of ideas. Even these latter imitations, however, directed as they are to foolish and pernicious objects, place the self-independence of the greater portion of mankind in a very doubtful light, and account for their union into a social whole. Still more nearly allied to morbid sympathy than the imitation of enticing folly, although often with a considerable admixture of the latter, is the diffusion of violent excitements, especially those of a religious or political character, which have so powerfully agitated the nations of ancient and modern times, and which may, after an incipient compliance,[1] pass into a total loss of power over the will, and an actual disease of the mind. Far be it from us to attempt to awaken all the various tones of this chord, whose vibrations reveal the profound secrets which lie hid in the inmost recesses of the soul. We might well want powers adequate to so vast an undertaking. Our business here is only with that morbid sympathy, by the aid of which the dancing mania of the middle ages grew into a real epidemic. In order to

[1] *Paracelsus.*

make this apparent by comparison, it may not be out of place, at the close of this inquiry, to introduce a few striking examples:—

1. "At a cotton manufactory at Hodden Bridge, in Lancashire, a girl, on the fifteenth of February, 1787, put a mouse into the bosom of another girl, who had a great dread of mice. The girl was immediately thrown into a fit, and continued in it, with the most violent convulsions, for twenty-four hours. On the following day, three more girls were seized in the same manner; and on the 17th, six more. By this time the alarm was so great, that the whole work, in which 200 or 300 were employed, was totally stopped, and an idea prevailed that a particular disease had been introduced by a bag of cotton opened in the house. On Sunday the 18th, Dr. St. Clare was sent for from Preston; before he arrived three more were seized, and during that night and the morning of the 19th, eleven more, making in all twenty-four. Of these, twenty-one were young women, two were girls of about ten years of age, and one man, who had been much fatigued with holding the girls. Three of the number lived about two miles from the place where the disorder first broke out, and three at another factory at Clitheroe, about five miles distant, which last and two more were infected entirely from report, not having seen the other patients, but, like them and the rest of the country, strongly impressed with the idea of the plague being caught from the cotton. The symptoms were anxiety, strangulation, and very strong convulsions; and these were so violent as to last without any intermission from a quarter of an hour to twenty-four hours, and to require four or five persons to prevent the patients from tearing their hair and dashing their heads against the floor or walls. Dr. St. Clare had taken with him a portable electrical machine, and by electric shocks the patients were universally relieved without exception. As soon as the patients and the country were assured that the complaint was merely nervous, easily cured, and not introduced by the cotton, no fresh person was affected. To dissipate their apprehension still further, the best effects were obtained by causing them to take a cheerful glass and join in a dance. On Tuesday the 20th, they danced, and the next day were all at work, except two or three, who were much weakened by their fits."[1]

[1] Gentleman's Magazine, 1787, March, p. 268.—*F. B. Osiander*, Ueber die Entwickelungskrankheiten in den Blüthenjahren des weiblichen Geschlechts. On the disorders of young women, &c. Tübingen, 1820, Vol. I. p. 10.

The occurrence here described is remarkable on this account, that there was no important predisposing cause for convulsions in these young women, unless we consider as such their miserable and confined life in the work-rooms of a spinning manufactory. It did not arise from enthusiasm, nor is it stated that the patients had been the subjects of any other nervous disorders. In another perfectly analogous case, those attacked were all suffering from nervous complaints, which roused a morbid sympathy in them at the sight of a person seized with convulsions. This, together with the supervention of hysterical fits, may aptly enough be compared to Tarantism.

2. "A young woman of the lowest order, twenty-one years of age, and of a strong frame, came on the 13th of January, 1801, to visit a patient in the Charité hospital at Berlin, where she had herself been previously under treatment for an inflammation of the chest with tetanic spasms, and immediately on entering the ward, fell down in strong convulsions. At the sight of her violent contortions, six other female patients immediately became affected in the same way, and by degrees eight more were in like manner attacked with strong convulsions. All these patients were from sixteen to twenty-five years of age, and suffered without exception, one from spasms in the stomach, another from palsy, a third from lethargy, a fourth from fits with consciousness, a fifth from catalepsy, a sixth from syncope, &c. The convulsions, which alternated in various ways with tonic spasms, were accompanied by loss of sensibility, and were invariably preceded by languor with heavy sleep, which was followed by the fits in the course of a minute or two; and it is remarkable, that in all these patients their former nervous disorders, not excepting paralysis, disappeared, returning, however, after the subsequent removal of their new complaint. The treatment, during the course of which two of the nurses, who were young women, suffered similar attacks, was continued for four months. It was finally successful, and consisted principally in the administration of opium, at that time the favourite remedy." [1]

Now, every species of enthusiasm, every strong affection, every violent passion, may lead to convulsions—to mental disorders—to a concussion of the nerves, from the sensorium to the very finest extremities of the spinal chord. The whole world is full of

[1] This account is given by *Fritze*. *Hufeland's* Journal der practischen Heilkunde, Vol. XII. 1801. Part I. p. 110. Hufeland's Journal of Practical Medicine.

examples of this afflicting state of turmoil, which, when the mind is carried away by the force of a sensual impression that destroys its freedom, is irresistibly propagated by imitation. Those who are thus infected do not spare even their own lives, but, as a hunted flock of sheep will follow their leader and rush over a precipice, so will whole hosts of enthusiasts, deluded by their infatuation, hurry on to a self-inflicted death. Such has ever been the case, from the days of the Milesian virgins to the modern associations for self-destruction.[1] Of all enthusiastic infatuations, however, that of religion is the most fertile in disorders of the mind as well as of the body, and both spread with the greatest facility by sympathy. The history of the church furnishes innumerable proofs of this, but we need go no further than the most recent times.

3. In a Methodist chapel at Redruth, a man, during divine service, cried out with a loud voice, "What shall I do to be saved?" at the same time manifesting the greatest uneasiness and solicitude respecting the condition of his soul. Some other members of the congregation, following his example, cried out in the same form of words, and seemed shortly after to suffer the most excruciating bodily pain. This strange occurrence was soon publicly known, and hundreds of people, who had come thither, either attracted by curiosity, or a desire, from other motives, to see the sufferers, fell into the same state. The chapel remained open for some days and nights, and from that point the new disorder spread itself, with the rapidity of lightning, over the neighbouring towns of Camborne, Helston, Truro, Penryn, and Falmouth, as well as over the villages in the vicinity. Whilst thus advancing, it decreased in some measure at the place where it had first appeared, and it confined itself throughout to the Methodist chapels. It was only by the words which have been mentioned that it was excited, and it seized none but people of the lowest education. Those who were attacked betrayed the greatest anguish, and fell into convulsions; others cried out, like persons possessed, that the Almighty would straightway pour out his wrath upon them, that the wailings of tormented spirits rang in their ears, and that they saw hell open to receive them. The clergy, when, in the course of their sermons, they perceived that persons were thus seized,

[1] Compare *J. G. Zimmermann*, Ueber die Einsamkeit. Leipsig, 1784. 8vo. Vol. II. ch. 6. p. 77. On Solitude.—*J. P. Falret*, De l'hypochondrie et du suicide. Paris, 1822. 8vo., and others.

earnestly exhorted them to confess their sins, and zealously endeavoured to convince them that they were by nature enemies to Christ; that the anger of God had therefore fallen upon them; and that if death should surprise them in the midst of their sins, the eternal torments of hell would be their portion. The over-excited congregation upon this repeated their words, which naturally must have increased the fury of their convulsive attacks. When the discourse had produced its full effect, the preacher changed his subject; reminded those who were suffering of the power of the Saviour, as well as of the grace of God, and represented to them in glowing colours the joys of heaven. Upon this a remarkable reaction sooner or later took place. Those who were in convulsions felt themselves raised from the lowest depths of misery and despair to the most exalted bliss, and triumphantly shouted out that their bonds were loosed, their sins were forgiven, and that they were translated to the wonderful freedom of the children of God. In the mean time, their convulsions continued, and they remained, during this condition, so abstracted from every earthly thought, that they staid two and sometimes three days and nights together in the chapels, agitated all the time by spasmodic movements, and taking neither repose nor nourishment. According to a moderate computation, 4000 people were, within a very short time, affected with this convulsive malady.

The course and symptoms of the attacks were in general as follows:—There came on at first a feeling of faintness, with rigour and a sense of weight at the pit of the stomach, soon after which, the patient cried out, as if in the agonies of death or the pains of labour. The convulsions then began, first showing themselves in the muscles of the eyelids, though the eyes themselves were fixed and staring. The most frightful contortions of the countenance followed, and the convulsions now took their course downwards, so that the muscles of the neck and trunk were affected, causing a sobbing respiration, which was performed with great effort. Tremors and agitation ensued, and the patients screamed out violently, and tossed their heads about from side to side. As the complaint increased, it seized the arms, and its victims beat their breasts, clasped their hands, and made all sorts of strange gestures. The observer who gives this account remarked that the lower extremities were in no instance affected. In some cases, exhaustion came on in a very few minutes, but the attack usually lasted much longer, and there were even cases in which it was known to continue for sixty or seventy hours. Many of those

who happened to be seated when the attack commenced, bent their bodies rapidly backwards and forwards during its continuance, making a corresponding motion with their arms, like persons sawing wood. Others shouted aloud, leaped about, and threw their bodies into every possible posture, until they had exhausted their strength. Yawning took place at the commencement in all cases, but as the violence of the disorder increased, the circulation and respiration became accelerated, so that the countenance assumed a swollen and puffed appearance. When exhaustion came on, patients usually fainted, and remained in a stiff and motionless state until their recovery. The disorder completely resembled the St. Vitus's dance, but the fits sometimes went on to an extraordinarily violent extent, so that the author of the account once saw a woman, who was seized with these convulsions, resist the endeavours of four or five strong men to restrain her. Those patients who did not lose their consciousness were in general made more furious by every attempt to quiet them by force, on which account they were in general suffered to continue unmolested until nature herself brought on exhaustion. Those affected complained, more or less, of debility after the attacks, and cases sometimes occurred in which they passed into other disorders: thus some fell into a state of melancholy, which, however, in consequence of their religious ecstacy, was distinguished by the absence of fear and despair; and in one patient inflammation of the brain is said to have taken place. No sex or age was exempt from this epidemic malady. Children five years old and octogenarians were alike affected by it, and even men of the most powerful frame were subject to its influence. Girls and young women, however, were its most frequent victims.[1]

4. For the last hundred years a nervous affection of a perfectly similar kind has existed in the Shetland Islands, which furnishes a striking example, perhaps the only one now existing, of the very lasting propagation by sympathy of this species of disorders. The origin of the malady was very insignificant. An epileptic woman had a fit in church, and whether it was that the minds of the congregation were excited by devotion, or that, being overcome at the sight of the strong convulsions, their sympathy was called forth, certain it is, that many adult women, and even children, some of whom were of the male sex, and not more than

[1] This statement is made by *J. Cornish*. See *Fothergill* and *Want's* Medical and Physical Journal, vol. xxxi. 1814. pp. 373—379.

six years old, began to complain forthwith of palpitation, followed by faintness, which passed into a motionless and apparently cataleptic condition. These symptoms lasted more than an hour, and probably recurred frequently. In the course of time, however, this malady is said to have undergone a modification, such as it exhibits at the present day. Women whom it has attacked will suddenly fall down, toss their arms about, writhe their bodies into various shapes, move their heads suddenly from side to side, and with eyes fixed and staring, utter the most dismal cries. If the fit happen on any occasion of public diversion, they will, as soon as it has ceased, mix with their companions, and continue their amusement as if nothing had happened. Paroxysms of this kind used to prevail most during the warm months of summer, and about fifty years ago there was scarcely a Sabbath in which they did not occur. Strong passions of the mind, induced by religious enthusiasm, are also exciting causes of these fits, but like all such false tokens of divine workings, they are easily encountered by producing in the patient a different frame of mind, and especially by exciting a sense of shame: thus those affected are under the control of any sensible preacher, who knows how to "administer to a mind diseased," and to expose the folly of voluntarily yielding to a sympathy so easily resisted, or of inviting such attacks by affectation. An intelligent and pious minister of Shetland informed the physician, who gives an account of this disorder as an eye-witness, that being considerably annoyed, on his first introduction into the country, by these paroxysms, whereby the devotions of the church were much impeded, he obviated their repetition by assuring his parishioners, that no treatment was more effectual than immersion in cold water: and as his kirk was fortunately contiguous to a fresh-water lake, he gave notice that attendants should be at hand, during divine service, to ensure the proper means of cure. The sequel need scarcely be told. The fear of being carried out of the church, and into the water, acted like a charm; not a single Naiad was made, and the worthy minister, for many years, had reason to boast of one of the best-regulated congregations in Shetland. As the physician above alluded to was attending divine service in the kirk of Baliasta, on the Isle of Unst, a female shriek, the indication of a convulsion fit, was heard; the minister, Mr. Ingram, of Fetlar, very properly stopped his discourse, until the disturber was removed; and, after advising all those who thought they might be similarly affected, to leave the church, he gave out, in the mean time, a

psalm. The congregation was thus preserved from further interruption; yet the effect of sympathy was not prevented, for as the narrator of the account was leaving the church, he saw several females writhing and tossing about their arms on the green grass, who durst not, for fear of a censure from the pulpit, exhibit themselves after this manner within the sacred walls of the kirk.[1]

In the production of this disorder, which no doubt still exists, fanaticism certainly had a smaller share than the irritable state of women out of health, who only needed excitement, no matter of what kind, to throw them into the prevailing nervous paroxysms. When, however, that powerful cause of nervous disorders takes the lead, we find far more remarkable symptoms developed, and it then depends on the mental condition of the people among whom they appear, whether, in their spread, they shall take a narrow or an extended range—whether, confined to some small knot of zealots, they are to vanish without a trace, or whether they are to attain even historical importance.

5. The appearance of the *Convulsionnaires* in France, whose inhabitants, from the greater mobility of their blood, have in general been the less liable to fanaticism, is, in this respect, instructive and worthy of attention. In the year 1727 there died, in the capital of that country, the Deacon Pâris, a zealous opposer of the Ultramontanists, division having arisen in the French church on account of the bull "Unigenitus." People made frequent visits to his tomb, in the cemetery of St. Medard, and four years afterwards (in September, 1731), a rumour was spread, that miracles took place there. Patients were seized with convulsions and tetanic spasms, rolled upon the ground like persons possessed, were thrown into violent contortions of their heads and limbs, and suffered the greatest oppression, accompanied by quickness and irregularity of pulse. This novel occurrence excited the greatest sensation all over Paris, and an immense concourse of people resorted daily to the above-named cemetery, in order to see so wonderful a spectacle, which the Ultramontanists immediately interpreted as a work of Satan, while their opponents ascribed it to a divine influence. The disorder soon increased, until it produced, in nervous women, *clairvoyance* (*Schlafwachen*), a phenomenon till then unknown; for one female especially attracted attention,

[1] *Samuel Hibbert*, Description of the Shetland Islands, comprising an account of their geology, scenery, antiquities, and superstitions. Edinburgh, 1822. 4to. p. 399.

who blindfold, and, as it was believed, by means of the sense of smell, read every writing that was placed before her, and distinguished the characters of unknown persons. The very earth taken from the grave of the Deacon was soon thought to possess miraculous power. It was sent to numerous sick persons at a distance, whereby they were said to have been cured, and thus this nervous disorder spread far beyond the limits of the capital, so that at one time it was computed that there were more than eight hundred decided *Convulsionnaires*, who would hardly have increased so much in numbers, had not Louis XV. directed that the cemetery should be closed.[1] The disorder itself assumed various forms, and augmented, by its attacks, the general excitement. Many persons, besides suffering from the convulsions, became the subjects of violent pain, which required the assistance of their brethren of the faith. On this account they, as well as those who afforded them aid, were called by the common title of *Secourists*. The modes of relief adopted were remarkably in accordance with those which were administered to the St. John's dancers and the Tarantati, and they were in general very rough; for the sufferers were beaten and goaded in various parts of the body with stones, hammers, swords, clubs, &c., of which treatment the defenders of this extraordinary sect relate the most astonishing examples, in proof that severe pain is imperatively demanded by nature in this disorder, as an effectual counter-irritant. The Secourists used wooden clubs, in the same manner as paviours use their mallets, and it is stated that some Convulsionnaires have borne daily from six to eight thousand blows, thus inflicted, without danger.[2] One Secourist administered to a young woman, who was suffering under spasm of the stomach, the most violent blows on that part, not to mention other similar cases, which occurred everywhere in great numbers. Sometimes the patients bounded from the ground, impelled by the convulsions, like fish when out of water; and this was so frequently imitated at a later period, that the women and girls, when they expected such violent contortions, not wishing to

[1] About this time the following couplet was circulated:—

"De par le Roi, défense à Dieu
De faire miracle dans ce lieu."

[2] This kind of assistance was called the "Grands Secours." *Boursier*, Mémoire Théologique sur ce qu'on appelle les Secours violens dans les Convulsions. Paris, 1788. 12mo. Many Convulsionnaires were seized with illness in consequence of this singularly erroneous mode of cure. A Dominican friar died from the effects of it—though accidents of this kind were kept carefully concealed. See *Renault* (parish priest at Vaux, near Auxerre; obiit, 1796), Le Secourisme détruit dans ses fondemens, 1759, 12mo., and Le Mystère d'Iniquité, 1788. 8vo.

appear indecent, put on gowns, made like sacks, closed at the feet. If they received any bruises by falling down, they were healed with earth from the grave of the uncanonized saint. They usually, however, showed great agility in this respect, and it is scarcely necessary to remark that the female sex especially was distinguished by all kinds of leaping, and almost inconceivable contortions of body. Some spun round on their feet with incredible rapidity, as is related of the dervishes; others ran their heads against walls, or curved their bodies like rope-dancers, so that their heels touched their shoulders.

All this degenerated at length into decided insanity. A certain Convulsionnaire, at Vernon, who had formerly led rather a loose course of life, employed herself in confessing the other sex; in other places women of this sect were seen imposing exercises of penance on priests, during which these were compelled to kneel before them. Others played with children's rattles, or drew about small carts, and gave to these childish acts symbolical significations.[1] One Convulsionnaire even made believe to shave her chin, and gave religious instruction at the same time, in order to imitate Pâris, the worker of miracles, who during this operation, and whilst at table, was in the habit of preaching. Some had a board placed across their bodies, upon which a whole row of men stood; and as, in this unnatural state of mind, a kind of pleasure is derived from excruciating pain, some too were seen who caused their bosoms to be pinched with tongs, while others, with gowns closed at the feet, stood upon their heads, and remained in that position longer than would have been possible had they been in health. Pinault, the advocate, who belonged to this sect, barked like a dog some hours every day, and even this found imitation among the believers.

The insanity of the Convulsionnaires lasted, without interruption, until the year 1790, and, during these fifty-nine years, called forth more lamentable phenomena than the enlightened spirits of the eighteenth century would be willing to allow. The grossest immorality found, in the secret meetings of the believers, a sure sanctuary, and, in their bewildering devotional exercises, a convenient cloak. It was of no avail that, in the year 1762, the Grands Secours was forbidden by act of parliament; for thence-

[1] *Arouet*, the father of *Voltaire*, visited, in Nantes, a celebrated Convulsionnaire, *Gabrielle Mollet*, whom he found occupied in pulling the bells off a child's coral, to designate the rejection of the unbelievers. Sometimes she jumped into the water, and barked like a dog. She died in 1748.

forth this work was carried on in secrecy, and with greater zeal than ever; it was in vain, too, that some physicians, and, among the rest, the austere, pious Hecquet,[1] and after him Lorry,[2] attributed the conduct of the Convulsionnaires to natural causes. Men of distinction among the upper classes, as, for instance, Montgeron the deputy, and Lambert an ecclesiastic (obt. 1813), stood forth as the defenders of this sect; and the numerous writings[3] which were exchanged on the subject, served, by the importance which they thus attached to it, to give it stability. The revolution, finally, shook the structure of this pernicious mysticism. It was not, however, destroyed; for, even during the period of the greatest excitement, the secret meetings were still kept up; prophetic books, by Convulsionnaires of various denominations, have appeared even in the most recent times, and only a few years ago (in 1828) this once celebrated sect still existed, although without the convulsions and the extraordinarily rude aid of the brethren of the faith, which, amidst the boasted pre-eminence of French intellectual advancement, remind us most forcibly of the dark ages of the St. John's dancers.[4]

6. Similar fanatical sects exhibit among all nations[5] of ancient and modern times the same phenomena. An overstrained bigotry

[1] *J. Phil. Hecquet* (obiit 1737). Le Naturalisme des Convulsions. Soleure, 1733. 8vo.

[2] De Melancholia et Morbis Melancholicis. Paris, 1765. 2 vols. 8vo.

[3] Especially from 1784 to 1788.

[4] See *Grégoire*, Histoire des Sectes Religieuses, tome ii. ch. 13. p. 127. Paris, 1828. 8vo. The following words of this meritorious author, on the mental state of his countrymen, are very well worthy of attention. "L'esprit public est dans un état de fluctuation persévérante: *des âmes flétries par l'égoïsme n'ont que le caractère de la servitude;* l'education viciée ne forme guère que des êtres dégradés; la religion est méconnue ou mal enseignée; *la nation présente des symptômes alarmans de sa décrépitude*, et présage des malheurs dont on ne peut calculer l'étendue ni la durée." P. 161.

[5] "I had occasion to witness at Cairo another species of religious fanaticism. I heard one day, at a short distance from my residence, for several hours together, singing, or more properly crying, so uniform and fatiguing, that I inquired the cause of this singularity. I was told that it was some dervise or monk, who repeated, while *dancing* on his heels, the name of Allah, till, completely exhausted, he sank down insensible. These unhappy visionaries, in fact, often expire at the end of this holy *dance;* and the cries of the one whom I heard, having commenced in the afternoon, and continued during the whole of the night, and part of the following morning, I doubt not that his pious enthusiasm cost him his life."—*Recollections of Egypt, by the Baroness Von Minutoli.* London, 1827.

In Arabia the same fanatical zeal exists, as we find from the following passage of an anonymous history of the Wahabis, published in Paris, in 1810: "La prière la plus méritoire consiste à crier le nom de Dieu, pendant des heures entières, et le plus saint est celui qui répète ce nom le plus long temps et le plus vite. Rien de plus curieux que le spectacle des Schekhs, qui, dans les fêtes publiques, s'essayent à l'envi, et hurlent le nom d'Allah d'une manière effrayante. La plupart enroués sont forcés de se taire,

is, in itself, and considered in a medical point of view, a destructive irritation of the senses, which draws men away from the efficiency of mental freedom, and peculiarly favours the most injurious emotions. Sensual ebullitions, with strong convulsions of the nerves, appear sooner or later,[1] and insanity, suicidal disgust of life, and incurable nervous disorders,[2] are but too frequently the consequences of a perverse, and, indeed, hypocritical zeal, which has ever prevailed, as well in the assemblies of the Mænades and Corybantes of antiquity, as under the semblance of religion among the Christians and Mahomedans.

There are some denominations of English Methodists which surpass, if possible, the French Convulsionnaires; and we may here mention, in particular, the Jumpers, among whom it is still more difficult, than in the example given above, to draw the line between religious ecstacy and a perfect disorder of the nerves; sympathy, however, operates perhaps more perniciously on them than on other fanatical assemblies. The sect of Jumpers was founded in the year 1760, in the county of Cornwall, by two fanatics,[3] who were, even at that time, able to collect together a considerable party. Their general doctrine is that of the Methodists, and claims our consideration here, only in so far as it enjoins them, during their devotional exercises, to fall into convulsions, which they are able to effect in the strangest manner imaginable. By the use of certain unmeaning words, they work themselves up into a state of religious frenzy, in which they seem to have scarcely any control over their senses. They then begin to jump with strange gestures, repeating this exercise with all their might, until they are exhausted, so that it not unfrequently happens that women, who, like the Mænades, practise these religious exercises, are carried away from the midst of them in a state of syncope, whilst the remaining members of the congregations, for miles together, on their way home, terrify those whom they meet by

et abandonnent la palme au saint à forte poitrine, qui, pour jouir de sa victoire, s'efforce et jette encore quelque cris devant ses rivaux réduits au silence. Epuisé de fatigue, baigné de sueur, il tombe enfin au milieu du peuple dévot, qui s'empresse à le relever et le porte en triomphe. Les principales mosquées retentissent, tous les Vendredis, des cris dictés par cette singulière émulation. Le Schekh, que ses poumons ont sanctifié, conserve son odeur de sainteté par des extases et des transports, souvent dangereux pour les Chrétiens que le hazard en rend témoins malgré eux."—*Transl. note.*

[1] For examples see *Osiander*, Entwickelungskrankheiten. Loc. cit. p. 45.

[2] Among 108 cases of insanity, *Perfect* mentions eleven of mania and methodistical enthusiasm, *in nine of which suicide was committed.* Annals of Insanity. London, 1808. 8vo.

[3] *Harris Rowland* and *William Williams.*

the sight of such demoniacal ravings. There are never more than a few ecstatics, who, by their example, excite the rest to jump, and these are followed by the greatest part of the meeting, so that these assemblages of the Jumpers resemble, for hours together, the wildest orgies, rather than congregations met for Christian edification.[1]

In the United States of North America, communities of Methodists have existed for the last sixty years. The reports of credible witnesses of their assemblages for divine service in the open air (camp meetings),[2] to which many thousands flock from great distances,[3] surpass, indeed, all belief; for not only do they there repeat all the insane acts of the French Convulsionnaires and of the English Jumpers, but the disorder of their minds and of their nerves attains, at these meetings, a still greater height. Women have been seen to miscarry whilst suffering under the state of ecstacy and violent spasms into which they are thrown, and others have publicly stripped themselves and jumped into the rivers. They have swooned away[4] by hundreds, worn out with ravings and fits; and of the Barkers, who appeared among the Convulsionnaires only here and there, in single cases of complete aberration of intellect, whole bands are seen running on all fours, and growling[5] as if they wished to indicate, even by their outward form, the shocking degradation of their human nature. At these camp-meetings the children are witnesses of this mad infatuation, and as their weak nerves are, with the greatest facility, affected by sympathy, they, together with their parents, fall into violent fits, though they know nothing of their import, and many of them retain for life some severe nervous disorder, which, having

[1] *John Evans*, Sketch of the Denominations of the Christian World. 13th edition. London, 1814. 12mo. p. 236.—See *Grégoire*, loc. cit. tome iv. chap. xiii. p. 483.

[2] *Mrs. Trollope's* Domestic Manners of the Americans. A Revival, pp. 108—112. Shaking Quakers, pp. 195, 196. Camp Meeting, p. 233. London, 2 vols. 1832.—*Transl. note.*

[3] In Kentucky, assemblies of from ten to twelve thousand have frequently taken place. Virginia, North Carolina, Tennessee, and New York, are also the theatres of these meetings.—*Grégoire*, tome iv. p. 496.

[4] At one of these camp-meetings a traveller saw above eight hundred persons faint away. Idem. He nowhere met with more frequent instances of suicide in consequence of Demonomania, than in North America.

[5] Idem, p. 498. These are the *Barkers*. Numerous other convulsive Methodistical sects abound in North America. The *Shakers*, who are inimical to marriage, would also have been mentioned, were not their contortions much less violent than those of the Jumpers.—See *Grégoire*, tome v. p. 195. *Evans*, p. 267.

arisen from fright and excessive excitement, will not afterwards yield to any medical treatment.[1]

But enough of these extravagances, which, even in our own days, embitter the lives of so many thousands, and exhibit to the world, in the nineteenth century, the same terrific form of mental disturbance as the St. Vitus's dance once did to the benighted nations of the middle ages.

[1] See *Perrin du Lac*, Voyage dans les deux Louisianes. Paris, 1805. 8vo. chap. ix. pp. 64, 65. chap. xvii. pp. 128, 129.—*Michaud*, Voyage à l'ouest des Monts Alleghanys. Paris, 1804. 8vo. p. 212.—*John Melish*, Travels in the United States of America. Philadelphia, 1812. 8vo. vol. i. p. 26.—*Lambert*, Travels through Canada and the United States, London, 1810. 8vo. vol. iii. p. 44.—*John Howison*, Sketches of Upper Canada. Edinburgh, 1822. 8vo. p. 150.—*Edward Allen Talbot*, Cinq Années de Résidence au Canada. Paris, 1825. 8vo. tome ii. p. 147.

APPENDIX.

I.

Petri de Herentals, Prioris Floreffiensis Vita *Gregorii XI., in Stephan. Baluzii* Vitæ Paparum Avenionensium. T. I. Paris, 1693. 4*to. p.* 483.

Ejus tempore, videlicet A. D. MCCCLXXV., mira secta tam virorum quam mulierum venit Aquisgrani de partibus Alamanniæ, et ascendit usque Hanoniam seu Franciam, cujus talis fuit conditio. Nam homines utriusque sexus illudebantur a dæmonio, taliter quod tam in domibus quam in plateis et in Ecclesiis se invicem manibus tenentes chorizabant et in altum saltabant, ac quædam nomina dæmoniorum nominabant, videlicet *Friskes* et similia, nullam cognitionem in hujusmodi chorizatione nec verecundiam sui propter astantes populos habentes. Et in fine hujus chorizationis in tantum circa pectoralia torquebantur, quod nisi mappulis lineis a suis amicis per medium ventris fortiter stringerentur, quasi furiose clamabant se mori. Hi vero in Leodio per conjurationes sumptas de illis quæ in catechismo ante baptismum fiunt, a dæmonio liberabantur, et sanati dicebant, quod videbatur eis *quod in hora hujus chorizationis erant in fluvio sanguinis, et propterea sic in altum saltabant.* Vulgus autem apud Leodium dicebat quod hujusmodi plaga populo contigisset eo quod populus male baptizatus erat, maxime a Presbyteribus suas tenentibus concubinas. Et propter hoc proposuerat vulgus insurgere in clerum, eos occidendo et bona eorum diripiendo, nisi Deus de remedio providisset per conjurationes prædictas. Quo viso cessavit tempestas vulgi taliter quod clerus multo plus a populo fuit honoratus. De ista autem chorizatione seu secta talia extant rigmata:

Oritur in seculo nova quædam secta
In gestis aut in speculo visa plus nec lecta.
Populus tripudiat nimium saltando.
Se unus alteri sociat leviter clamando.
Frisch friskes cum gaudio clamat uterque sexus
Cunctus manutergio et baculo connexus.
Capite fert pelleum desuper sertum.
Cernit Mariæ filium et cælum apertum.

Deorsum prosternitur. Dudum fit ululatus.
Calcato ventre cernitur statim liberatus.
Vagatur loca varia pompose vivendo.
Mendicat necessaria propriis parcendo.
Spernit videre rubea et personam flentem.
Ad fidei contraria erigit hic gens mentem.
Noctis sub umbraculo ista perpetravit.
Cum naturali baculo subtus se calcavit.
Clerum habet odio. Non curat sacramenta.
Post sunt Leodio remedia inventa,
Hanc nam fraudem qua suggessit sathan est convictus.
Conjuratus evanescit. Hinc sit Christus benedictus.

II.

Jo. Pistorii Rerum familiarumque Belgicarum Chronicon magnum. Francof. 1654. *fol. p.* 319. De chorisantibus.

Item Anno. Dn. MCCCLXXIV. tempore pontificatus venerabilis Domini Joannis de Arckel Episcopi Leodiensis, in mense Julio in crastino divisionis Apostolorum visi sunt dansatores scilicet chorisantes, qui postea venerunt Trajectum, Leodium, Tungrim et alia loca istarum partium in mense Septembri. Et cœpit hæc *dæmoniaca pestis* vexare in dictis locis et circumvicinis masculos et fœminas maxime pauperes et levis opinionis ad magnum omnium terrorem; pauci clericorum vel divitum sunt vexati. Serta in capitibus gestabant, circa ventrem mappa cum baculo se stringebant circa umbilicum, ubi post saltationem cadentes nimium torquebantur, et ne creparentur pedibus conculcabantur, vel contra creporem cum baculo ad mappam duriter se ligabant, vel cum pugno se trudi faciebant, rostra calceorum aliqui clamabant se abhorrere, unde in Leodio fieri tunc vetabantur. Ecclesias chorisando occupabant, et crescebant numerose de mense Septembri et Octobri, processiones fiebant ubique, litaniæ et missæ speciales. Leodii apud Sanctam crucem scholaris servitor in vesperis dedicationis, cœpit ludere cum thuribulo, et post vesperas fortiter saltare. Evocatus a pluribus, ut diceret Pater noster, noluit, et Credo respondit in diabolum. Quod videns capellanus, allata stola conjuravit eum per exorcismum baptizandorum, et statim dixit: Ecce inquit, scholaris recedit cum parva toga et calceis rostratis. Dic, tunc inquit, Pater noster et Credo. At ille utrumque dixit perfecte et curatus est. Apud Harstallium uno mane ante omnium Sanctorum, multi eorum ibi congregati consilium habuerunt, ut pariter venientes omnes canonicos, presbyteres et clericos Leodienses occiderent. Canonicus quidam parvæ mensæ minister Simon in claustro Leodiensi

apud capellam Beatæ virginis, in Deo confortatus, scalam projecit in collum unius, dicens Evangelium: In principio erat verbum, super caput ejus, et per hoc fuit liberatus, et pro miraculo statim fuit pulsatum. Apud S. Bartolomæum Leodii, præsentibus multis, cuidam alii exorcisanti respondit dæmon: Ego exibo libenter. Expecta, inquit presbyter, volo tibi loqui. Et postquam aliquos alios curasset, dixit illi, loquere tu personaliter et responde mihi. Tum solus respondit dæmon: Nos eramus duo, sed socius meus nequior me, ante me exivit, habui tot pati in hoc corpore, si essem extra, nunquam intrarem in corpus Christianum. Cui presbyter: Quare intrasti corpora talium personarum? Respondit: Clerici et presbyteres dicunt tot pulchra verba et tot orationes, ut non possemus intrare corpora ipsorum. Si adhuc fuisset expectatum per quindenam vel mensem, nos intrassemus corpora divitum, et postea principum, et sic per eos destruxissemus clerum. Et hæc fuerunt ibi a multis audita et postea a multis narrata. Hæc pestis intra annum satis invaluit, sed postea per tres aut quatuor annos omnino cessavit.

III.[1]

Die Limburger Chronik, herausgegeben von *C. D. Vogel.* Marburg, 1828, 8*vo. s.* 71.

Anno 1374 zu mitten im Sommer, da erhub sich ein wunderlich Ding auff Erdreich, und sonderlich in Teutschen Landen, auff dem Rhein und auff der Mosel, also dass Leute anhuben zu tantzen und zu rasen, und stunden je zwey gegen ein, und tantzeten auff einer Stätte einen halben Tag, und in dem Tantz da fielen sie etwan offt nieder, und liessen sich mit Füssen tretten auff ihren Leib. Davon nahmen sie sich an, dass sie genesen wären. Und lieffen von einer Stadt zu der andern, und von einer Kirchen zu der andern, und huben Geld auff von den Leuten, wo es ihnen mocht gewerden. Und wurd des Dings also viel, dass man zu Cölln in der Stadt mehr dann fünff hundert Täntzer fand. Und fand man, dass es eine Ketzerey war, und geschahe um Golds willen, das ihr ein Theil Frau und Mann in Unkeuschheit mochten kommen, und die vollbringen. Und fand man da zu Cölln mehr dann hundert Frauen und Dienstmägde, die nicht eheliche Männer hatten. Die wurden alle in der Täntzerey Kinder-tragend, und wann dass sie tantzeten, so bunden und knebelten sie sich hart um den Leib, dass sie desto geringer wären. Hierauff sprachen ein Theils Meister, sonderlich der guten Artzt, das ein Theil wurden tantzend, die von

[1] The substance of Nos. III. and IV. having been embodied in the text, it seems only necessary to insert here the original old German, which is couched in language too coarse to admit of translation.—*Transl. note.*

heisser Natur wären, und von andern gebrechlichen natürlichen Sachen. Dann deren war wenig, denen das geschahe. Die Meister von der heiligen Schrift, die beschwohren der Täntzer ein Theil, die meynten, dass sie besessen wären von dem bösen Geist. Also nahm es ein betrogen End, und währete wohl sechszehn Wochen in diesen Landen oder in der Mass. Auch nahmen die vorgenannten Täntzer Mann und Frauen sich an, dass sie kein roth sehen möchten. Und war ein eitel Teuscherey, und ist verbottschaft gewesen an Christum nach meinem Bedünken.

IV.

Die Chronica van der hilliger Stat van Coellen. A. D. MCCCLXXIV. fol. 277. Coellen, 1499. fol.

In dem seluen iair stonde eyn groisse kranckheit vp vnder den mynschen, ind was doch niet vill me gesyen dese selue kranckheit vur off nae ind quam van natuerlichen ursachen as die meyster schrijuen, ind noemen Sij maniam, dat is raserie off unsynnicheit. Ind vill lude beyde man ind frauwen junck ind alt hadden die kranckheit. Ind gyngen vyss huyss ind hoff, dat deden ouch junge meyde, die verliessen yr alderen, vrunde ind maege ind lantschaff. Disse vurss mynschen zo etzlichen tzijden as Sij die kranckheit anstiesse, so hadden Sij eyn wonderlich bewegung yrre lychamen. Sij gauen vyss kryschende vnd grusame stymme, ind mit dem wurpen Sij sich haestlich up die erden, vnd gyngen liggen up yren rugge, ind beyde man ind vrauwen moist men vmb yren buych ind vmp lenden gurdelen vnd kneuelen mit twelen vnd mit starcken breyden benden, asso stijff vnd harte als men mochte.

Item asso gegurt mit den twelen dantzten Sij in kyrchen ind in clusen ind vp allen gewijeden steden. As Sij dantzten, so sprungen Sij allit vp ind rieffen, *Here sent Johan, so so, vrisch ind vro here sent Johan.*

Item die ghene die die kranckheit hadden wurden gemeynlichen gesunt bynnen. VV. dagen. Zom lesten geschiede vill bouerie vnd droch dae mit. Eyndeyll naemen sich an dat Sij kranck weren. vp dat Sij mochten gelt dae durch bedelen. Die anderen vinsden sich kranck vp dat Sij mochten vnkuyschheit bedrijuen mit den vrauwen. jnd gyngen durch alle lant ind dreuen vill bouerie. Doch zo lesten brach idt vyss ind wurden verdreuen vyss den landen. Die selue dentzer quamen ouch zo Coellen tusschen tzwen vnser lieuen frauwen missen Assumptionis ind Natiuitatis.

V.

In the third volume of the Edinburgh Medical and Surgical Journal, p. 434, there is an account of "some convulsive diseases in certain parts of Scotland," which is taken from Sir J. Sinclair's statistical account, and from which I have thought it illustrative of our author's subject to make some extracts; the first that is noticed is peculiar to a part of Forfarshire, and is called the leaping ague, which bears so close an analogy to the original St. Vitus's Dance, or to Tarantism, that it seems to want only the "foul fiend," or the dreaded bite, as a cause, and a Scotch reel or strathspey as a cure, to render the resemblance quite complete. "Those affected with it first complain of a pain in the head, or lower part of the back, to which succeed convulsive fits, or *fits of dancing*, at certain periods. During the paroxysm they have all the appearance of madness, distorting their bodies in various ways, and leaping and springing in a surprising manner, whence the disease has derived its vulgar name. Sometimes they run with astonishing velocity, and often over dangerous passes, to some place out of doors, which they have fixed on in their own minds, or, perhaps, even mentioned to those in company with them, and then *drop down quite exhausted.* At other times, especially when confined to the house, they climb in the most singular manner. In cottages, for example, they leap from the floor to what is called the baulks, or those beams by which the rafters are joined together, springing form one to another with the agility of a cat, or whirling round one of them, with a motion resembling the fly of a jack. Cold bathing is found to be the most effectual remedy; but when the fit of dancing, leaping, or running comes on, *nothing tends so much to abate the violence of the disease, as allowing them free scope to exercise themselves, till nature be exhausted.* No mention is made of its being peculiar to any age, sex, or condition of life, although I am informed by a gentleman from Brechin, that it is most common before puberty. In some families it seems to be hereditary; and I have heard of one, in which a horse was always kept ready saddled, to follow the young ladies belonging to it, when they were seized with a fit of running. It was first observed in the parish of Kenmuir, and has prevailed occasionally in that and the neighbouring parishes, for about seventy years: but it is not now nearly so frequent as it was about thirty years ago. The history of this singular affection is still extremely imperfect: and it is only from some of the medical practitioners in that part of the country where it prevails, that a complete description can be expected."

Our author has already noticed the convulsive disease prevalent in the Shetland Islands, and has quoted Hibbert's account of it. The following, however, from a very valuable manuscript account of the Orkney

and Shetland Islands, drawn up about 1774, by George Low, with notes, by Mr. Pennant, is given in the journal already cited, and will be read with interest. The facts were communicated to Mr. Low by the Rev. Wm. Archibald, parochial clergyman of Unst, the most northerly of the Shetlands.

"There is a most shocking distemper, which has of late years prevailed very much, especially among young women, and was hardly known thirty or forty years ago. About that period only one person was subject to it. The inhabitants gave it the name of convulsion fits; and, indeed, in appearance it something resembles epilepsy. In its first rise it began with a palpitation of the heart, of which they complained for a considerable time; it at length produced swooning fits, in which people seized with it would lie motionless upwards of an hour. At length, as the distemper gathered strength, when any violent passion seized, or on a sudden surprise, they would all at once fall down, toss their arms about, with their bodies, into many odd shapes, crying out all the while, most dismally, throwing their heads about from side to side, with their eyes fixed and staring. At first this distemper obtained, in a private way, with one female, but she being seized in a public way, at church, the disease was communicated to others; but, whether by the influence of *fear* or *sympathy*, is not easy to determine. However this was, our public assemblies, especially at church, became greatly disturbed by their outcries. This distemper always prevails most violently during the summer time, in which season, for many years, we are hardly one sabbath free. In these few years past, it has not prevailed so extensively, and upon the whole, seems on the decline. One thing remarkable in this distemper is, that as soon as the fit is over, the persons affected with it are generally as lively and brisk as before; and if it happens at any of their public diversions, as soon as they revive, they mix with their companions, and continue their amusement as vigorously as if nothing had happened. Few men are troubled with this distemper, which seems more confined to women; but there are instances of its seizing men, and girls of six years of age. With respect to the nature of this disease, people who have made inquiry about it differ, but most imagine it hysterical; however, this seems not entirely the case, as men and children are subject to it; however, it is a new disease in Shetland, but whence imported, none can imagine.

"When the statistical account of this parish was published, this awful and afflicting disease was becoming daily less common. In the parishes of Aithsting, Sandsting, and Northmaven, in which it was once very frequent, it was now totally extinct. In the last of these the cure is said to have been effected by a very singular remedy, which, if true, and there seems no reason to doubt it, shows the influence of moral causes in removing, as well as inducing, convulsive disorders." The cure is attributed to a rough fellow of a kirk officer, who tossed a

woman in that state, with whom he had been frequently troubled, into a ditch of water. She was never known to have the disease afterwards, and others dreaded the same treatment.

It, however, still prevails in some of the northern parishes, particularly in Delting, although, according to the description given of it, with some alteration in its symptoms.

"Convulsion fits of a very extraordinary kind seem peculiar to this country. The patient is first seized with something like fainting, and immediately after utters wild cries and shrieks, the sound of which, at whatever distance, immediately puts all who are subject to the disorder in the same situation. It most commonly attacks them when the church is crowded, and often interrupts the service in this and many other churches in the country. On a sacramental occasion, fifty or sixty are sometimes carried out of the church, and laid in the churchyard, where they struggle and roar with all their strength, for five or ten minutes, and then rise up without recollecting a single circumstance that happened to them, or being in the least hurt or fatigued with the violent exertions they had made during the fit. One observation occurs on this disorder, that, during the late scarce years it was very uncommon, and, during the two last years of plenty (1791), it has appeared more frequently.

"Similar instances of epidemical convulsions are already upon record; but the history of that which occurred in Anglesea, North Wales, is the most remarkable, as its progress was, in all probability, checked by the judicious precautions recommended by Dr. Haygarth.

"In 1796, on the estates of the Earl of Uxbridge and Holland Griffith, Esq., 23 females, from 10 to 25, and one boy, of about 17 years of age, who had all intercourse with each other, were seized with an unusual kind of convulsions, affecting only the upper extremities. It began with pain of the head, and sometimes of the stomach and side, not very violent; after which there came on violent twitchings or convulsions of the upper extremities, continuing, with little intermission, and causing the shoulders almost to meet by the exertion. In bed the disorder was not so violent: but, in some cases at least, it continued even during sleep. Their pulse was moderate, the body costive, and the general health not much impaired. In general they had a hiccough; and, when the convulsions were most violent, giddiness came on, with the loss of hearing and recollection. During their convalescence, and they all recovered, the least fright or sudden alarm brought on a slight paroxysm.

"Dr. Haygarth, who was consulted on the means of relieving these unfortunate people, successfully recommended the use of antispasmodics; that all girls and young women should be prevented from having any communication with persons affected with those convulsions; and that those who were ill should be kept separate as much as possible."

The same paper from which the above extracts have been taken, quotes a remarkable instance in which religious enthusiasm was the exciting cause of a convulsive disease analogous to those already noticed. The account is given by the Rev. Dr. Meik, at great length. It appears that in January, 1742, about 90 persons in the parish of Cambuslang, in Lanarkshire, were induced to subscribe a petition to the minister, urging him to give them a weekly lecture, to which he readily assented. Nothing particular occurred at the first two lectures, but, at the third, to which the hearers had been very attentive, when the minister in his last prayer expressed himself thus, "Lord, who hath believed our report; and to whom is the arm of the Lord revealed?—where are the fruits of my poor labours among this people?" several persons in the congregation cried out publicly, and about fifty men and women came to the minister's house, expressing strong convictions of sin, and alarming fears of punishment. After this period, so many people from the neighbourhood resorted to Cambuslang, that the minister thought himself obliged to provide them with daily sermons or exhortations, and actually did so for seven or eight months. The way in which the converts were affected, for it seems they were affected much in the same way, though in very different degrees, is thus described. "They were seized, all at once, commonly by something said in the sermons or prayers, with the most dreadful apprehensions concerning the state of their souls, insomuch that many of them could not abstain from crying out, in the most public and frightful manner, 'bewailing their lost and undone condition by nature; calling themselves enemies to God, and despisers of precious Christ; declaring that they were unworthy to live on the face of the earth; that they saw the mouth of hell open to receive them, and that they heard the shrieks of the damned;' but the universal cry was, 'What shall we do to be saved?' The agony under which they laboured was expressed, not only by words, but also by violent agitations of body; by clapping their hands and beating their breasts; by shaking and trembling; by faintings and convulsions; and sometimes by excessive bleeding at the nose. While they were in this distress, the minister often called out to them, not to stifle or smother their convictions, but to encourage them: and, after sermon was ended, he retired with them to the manse, and frequently spent the best part of the night with them in exhortations and prayers. Next day, before sermon began, they were brought out, and, having napkins tied round their heads, were placed all together on seats before the tents, where they remained sobbing, weeping, and often crying aloud, till the service was over. Some of those who fell under conviction were never converted; but most of those who fell under it were converted in a few days, and sometimes in a few hours. In most cases their conversion was as sudden and unexpected as their conviction. They were raised all at once from the lowest depth of sorrow and distress, to the highest pitch of

joy and happiness; crying out with triumph and exultation, 'that they had overcome the wicked one; that they had gotten hold of Christ, and would never let him go; that the black cloud which had hitherto concealed him from their view, was now dispelled; and that they saw him, with a pen in his hand, blotting out their sins.' Under these delightful impressions, some began to pray, and exhort publicly, and others desired the congregation to join with them in singing a particular psalm, which they said God had commanded them to sing. From the time of their conviction to their conversion, many had no appetite for food, or inclination to sleep, and all complained of their sufferings during that interval."

The following account, which closes the paper whence the above quotations have been extracted, is taken from an Inaugural Essay on Chorea Sancti Viti, by Felix Robertson of Tennessee, 8vo. Philadelph. 1805.

"The Chorea, which is more particularly the subject of this dissertation, made its appearance during the summer of 1803, in the neighbourhood of Maryville (Tennessee), in the form of an epidemic. Previously to entering on its history, I think it necessary to premise a few cursory remarks on the mode of life of those amongst whom it originated, for some time before the appearance of the disease.

"I suppose there are but few individuals in the United States who have not at least heard of the unparalleled blaze of enthusiastic religion which burst forth in the western country, about the year 1800; but it is, perhaps, impossible to have a competent idea of its effects, without personal observation. This religious enthusiasm travelled like electricity, with astonishing velocity, and was felt, *almost instantaneously*, in every part of the states of Tennessee and Kentucky. It often proved so powerful a stimulus, that every other entirely lost its effect, or was but feebly felt. Hence that general neglect of earthly things, which was observed, and the almost perpetual attendance at places of public worship. Their churches are, in general, small and every way uncomfortable; the concourse of people, on days of worship, particularly of extraordinary meetings, was very numerous, and hundreds who lived at too great a distance to return home every evening, came supplied with provisions, tents, &c., for their sustenance and accommodation, during the continuance of the meeting, which commonly lasted from three to five days. They, as well as many others, remained on the spot day and night, the whole or greater part of this time, worshipping their Maker almost incessantly. The outward expressions of their worship consisted chiefly in alternate crying, laughing, singing, and shouting, and, at the same time, performing that variety of gesticulation, which the muscular system is capable of producing. It was under these circumstances that some found themselves unable, by voluntary efforts, to suppress the contraction of their muscles; and, to their own astonishment, and the diversion of many of the spectators, they continued to act from necessity, the curious character which they had commenced from choice.

"The disease no sooner appeared, than it spread with rapidity through the medium of the principle of imitation; thus it was not uncommon for an affected person to communicate it to the greater part of a crowd, who, from curiosity or other motives, had collected around him. It is at this time in almost every part of Tennessee and Kentucky, and in various parts of Virginia, but is said not to be contagious (or readily communicated), as at its commencement. It attacks both sexes, and every constitution, but evidently more readily those who are enthusiasts in religion, such as those above described, and females; children of six years of age, and adults of sixty, have been known to have it, but a great majority of those affected are from fifteen to twenty-five. The muscles generally affected are those of the trunk, particularly of the neck, sometimes those of the superior extremities, but very rarely, if ever, those of the inferior. The contractions are sudden and violent, such as are denominated convulsive, being sometimes so powerful, when in the muscles of the back, that the patient is thrown on the ground, where for some time his motions more resemble those of a live fish when thrown on land, than anything else to which I can compare them.

"This, however, does not often occur, and never, I believe, except at the commencement of the disease. The patients, in general, are capable of standing and walking, and many, after it has continued a short time, can attend to their business, provided it is not of a nature requiring much steadiness of body. They are incapable of conversing with any degree of satisfaction to themselves or company, being continually interrupted by those irregular contractions of their muscles, each causing a grunt, or forcible expiration; but the organs of speech do not appear to be affected, nor has it the least influence on the mind. They have no command over their actions by any effort of volition, nor does their lying in bed prevent them, but they always cease during sleep. This disease has remissions and exacerbations, which, however, observe no regularity in their occurrence or duration. During the intermission a paroxysm is often excited at the sight of a person affected, but more frequently by the common salute of shaking hands. The sensations of the patients in a paroxysm are generally agreeable, which the enthusiastic class often endeavour to express, by laughing, shouting, *dancing*, &c.

"Fatigue is almost always complained of after violent paroxysms, and sometimes a general soreness is experienced. The heart and arteries appear to be no further affected by the disease, than what arises from the exercise of the body; nor does any change take place in any of the secretions or excretions. It has not proved mortal in a single instance within my knowledge, but becomes lighter by degrees, and finally disappears. In some cases, however, of long continuance, it is attended with some degree of melancholia, which seems to arise entirely from the patient's reflections, and not directly from the disease.

"The state of the atmosphere has no influence over it, as it rages

with equal violence in summer and in winter; in moist and in dry air."

In the above examples, nervous disorders, bearing a strong resemblance to those of the middle ages, are shown to exist in an *epidemic* form, both in Europe and America, at the present time; but in these instances some general cause of mental excitement—and none is more powerful than religious enthusiasm—seems to have been requisite for their propagation. Their appearance, however, in *single cases*, is occasionally independent of any such origin, which leads to a belief, not without support in the experiments of modern physiologists, that they occasionally proceed from physical causes, and that it is therefore not necessary to consider them in all cases as the offspring of a disordered imagination.

A well-marked case of a disease approximating to the original Dancing Mania, is related by Mr. Kinder Wood, in the 7th volume of the Medico-Chirurgical Transactions, p. 237. The patient, a young married woman, is described to have suffered from headache and sickness, together with involuntary motions of the eyelids, and most extraordinary contortions of the trunk and extremities, for several days, when the more remarkable symptoms began to manifest themselves, which are thus recorded:—

"February 26. Slight motions of the limbs came on in bed. She arose at nine o'clock, after which they increased, and became unusually severe. She was hurled from side to side of the couch-chair upon which she sat, for a considerable time, without intermission; was sometimes instantaneously and forcibly thrown upon her feet, when she jumped and stamped violently. She had headache; the eyelids were frequently affected, and she had often a sudden propensity to spring or leap upwards. The affection ceased about eleven o'clock in the forenoon, the patient being very much fatigued; but it returned about noon, and a third time in the afternoon, when she was impelled into every corner of the room, and began to strike the furniture and doors violently with the hand, as she passed near them, the sound of which afforded her great satisfaction. The fourth attack was at night; was very violent, and ended with sickness and vomiting. She went to bed at half-past eleven. Her nights were invariably good. The last three attacks were more violent than the former ones, but they continued only half an hour each.

"February 27. The attack commenced in bed, and was violent, but of short duration. When she arose about ten, she had a second attack, continuing an hour, except an interval of five minutes. She now struck the furniture more violently and more repeatedly. Kneeling on one knee, with the hands upon the back, she often sprang up suddenly and struck the top of the room with the palm of the hand. To do this, she rose fifteen inches from the floor, so that the family were under the necessity of drawing all the nails and hooks from the ceiling. She fre-

quently danced upon one leg, holding the other with the hand, and occasionally changing the legs. In the evening, the family observed the blows upon the furniture to be more continuous, and to assume the regular time and measure of a musical air. As a strain or series of strokes was concluded, she ended with a more violent stroke or a more violent spring or jump. Several of her friends also at this time noticed the regular measure of the strokes, and the greater regularity the disease was assuming; the motions being evidently affected, or in some measure modified, by the strokes upon the surrounding bodies. She chiefly struck a small slender door, the top of a chest of drawers, the clock, a table, or a wooden screen placed near the door. The affection ceased about nine o'clock, when the patient went to bed.

"February 28. She arose very well at eight. At half-past nine the motions recommenced; they were now of a more pleasant nature; the involuntary actions, instead of possessing their former irregularity and violence, being changed into a measured step over the room, connected with an air, or series of strokes, and she beat upon the adjacent bodies as she passed them. In the commencement of the attack, the lips moved as if words were articulated, but no sound could be distinguished at this period. It was curious indeed to observe the patient at this time, moving around the room with all the vivacity of the country dance, or the graver step of the minuet, the arms frequently carried, not merely with ease, but with elegance. Occasionally all the steps were so directed as to place the foot constantly where the stone flags joined to form the floor, particularly when she looked downwards. When she looked upwards, there was an irresistible impulse to spring up to touch little spots or holes in the top of the ceiling; when she looked around, she had a similar propensity to dart the forefinger into little holes in the furniture, &c. One hole in the wooden screen received the point of the forefinger many hundred times, which was suddenly and involuntarily darted into it with an amazing rapidity and precision. There was one particular part of the wall to which she frequently danced, and there, placing herself with the back to it, stood two or three minutes. This by the family was called '*the measuring place*.'

"In the afternoon the motions returned, and proceeded much as in the morning. At this time a person present, surprised at the manner in which she beat upon the doors, &c., and thinking he recognised the air, without further ceremony began to sing the tune; the moment this struck her ears, she turned suddenly to the man, and dancing directly up to him, continued doing so till he was out of breath. The man now ceased a short time, when commencing again, he continued till the attack stopped. The night before this, her father had mentioned his wish to procure a drum, associating this dance of his daughter with some ideas of music. The avidity with which she danced to the tune when sung as above stated, confirmed this wish, and accordingly a drum and

fife were procured in the evening. After two hours of rest, the motions again reappeared, when the drum and fife began to play the air to which she had danced before, viz. the 'Protestant Boys,' a favourite popular air in this neighbourhood. In whatever part of the room she happened to be, she immediately turned and danced up to the drum, and as close as possible to it, and there she danced till she missed the step, when the involuntary motions instantly ceased. The first time she missed the step in five minutes; but again rose, and danced to the drum two minutes and a half by her father's watch, when, missing the step, the motions instantly ceased. She rose a third time, and missing the step in half a minute, the motions immediately ceased. After this, the drum and fife commenced as the involuntary actions were coming on, and before she rose from her seat; and four times they completely checked the progress of the attack, so that she did not rise upon the floor to dance. At this period the affection ceased for the evening.

"March 1. She arose very well at half-past seven. Upon my visit this morning, the circumstances of the preceding afternoon being stated, it appeared clear to me that the attacks had been shortened. Slow as I had seen the effects of medicine in the comparatively trifling disease of young females, I was very willing that the family should pursue the experiment, whilst the medical means were continued.

"As I wished to see the effect of the instrument over the disease, I was sent for at noon, when I found her dancing to the drum, which she continued to do for half an hour without missing the step, owing to the slowness of the movement. As I sat counting the pulse, which I found to be 120, in the short intervals of an attack, I noticed motions of the lips, previous to the commencement of the dance, and placing my ear near the mouth I distinguished a tune. After the attack, of which this was the beginning, she informed me, in answer to my inquiry, that there always was a tune dwelling upon her mind, which at times becoming more pressing, irresistibly impelled her to commence the involuntary motions. The motions ceased at four o'clock.

"At half-past seven the motions commenced again, when I was sent for. There were two drummers present, and an unbraced drum was beaten till the other was braced. She danced regularly to the unbraced drum, but the moment the other commenced she instantly ceased. As missing the time stopped the affections, I wished the measure to be changed during the dance, which stopped the attack. It also ceased upon increasing the rapidity of the beat, till she could no longer keep time; and it was truly surprising to see the rapidity and violence of the muscular exertion, in order to keep time with the increasing movement of the instrument. Five times I saw her sit down the same evening, at the instant that she was unable to keep the measure; and in consequence of this I desired the drummers to beat one continued roll, instead of a regular movement. She arose and danced five minutes, when

both drums beat a continued roll: the motions instantly stopped, and the patient sat down. In a few minutes the motions commencing again, she was suffered to dance five minutes, when the drums again began to roll, the effect of which was instantaneous; the motions ceased, and the patient sat down. In a few minutes the same was repeated with the same effect. It appeared certain that the attacks could now be stopped in an instant, and I was desirous of arresting them entirely, and breaking the chain of irregular associations which constituted the disease. As the motions at this period always commenced in the fingers, and propagated themselves along the upper extremities to the trunk, I desired the drummers, when the patient arose to dance, to watch the commencement of the attack, and roll the drums before she arose from the chair. Six times successively the patient was hindered from rising, by attending to the commencement of the affection; and before leaving the house, I desired the family to attend to the commencement of the attacks, and use the drum early.

"March 2. She arose at seven o'clock, and the motions commenced at ten; she danced twice before the drummer was prepared, after which she attempted to dance again four several times; but one roll of a well-braced drum hindered the patient from leaving her seat, after which the attacks did not recur. She was left weakly and fatigued by the disease, but with a good appetite. In the evening of this day an eruption appeared, particularly about the elbows, in diffused patches of a bright red colour, which went off on the third day."

Other cases might be adduced (see 23rd vol. of the Edinburgh Medical and Surgical Journal, p. 261; 31st vol. of ditto, p. 299; 5th vol. of the Medico-Chirurgical Transactions, pp. 1 to 23, &c.), but as there is none more striking than this, they would unnecessarily swell this number of the Appendix, which has already extended to an undue length.

VI.
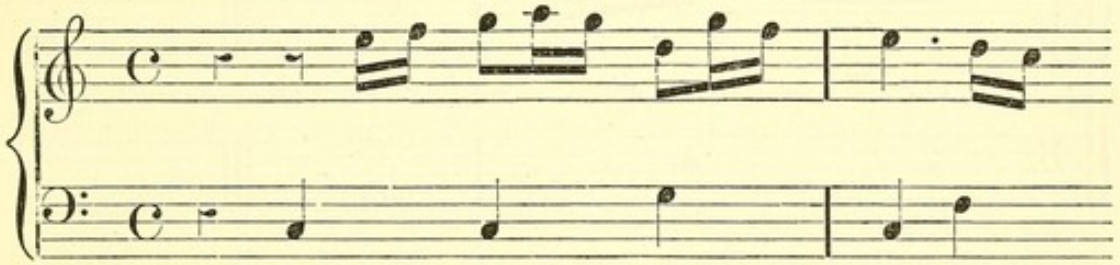
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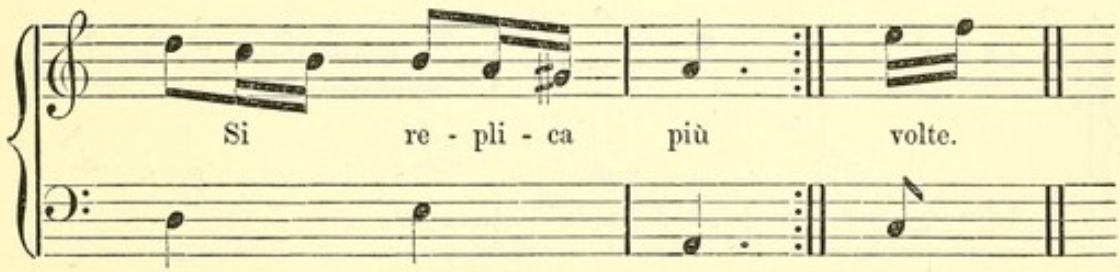
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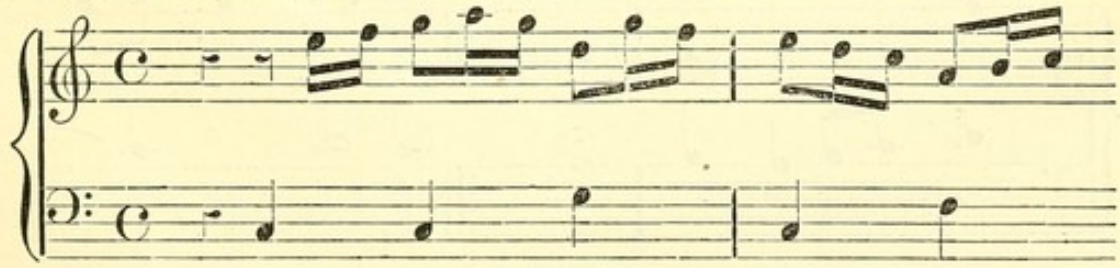
Magness. de Arte magnetica. Rom. 1654. *fol. p.* 591.—*Repeated in Sam. Hafenreffer, Nosodochium, in quo cutis affectus traduntur. Ulm.* 1660. 8*vo. p.* 485.

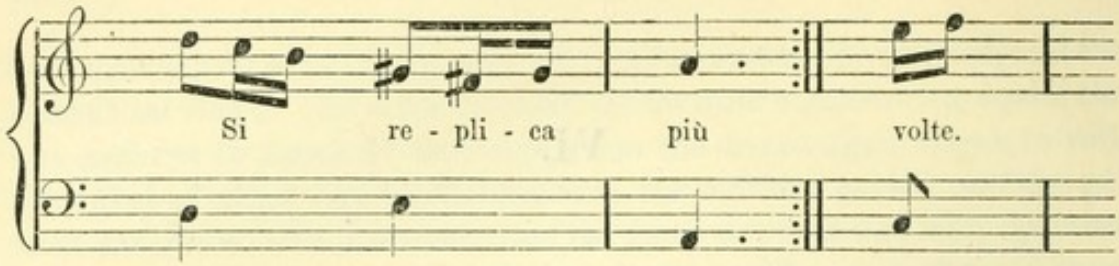
I. *Primus modus Tarantella.*



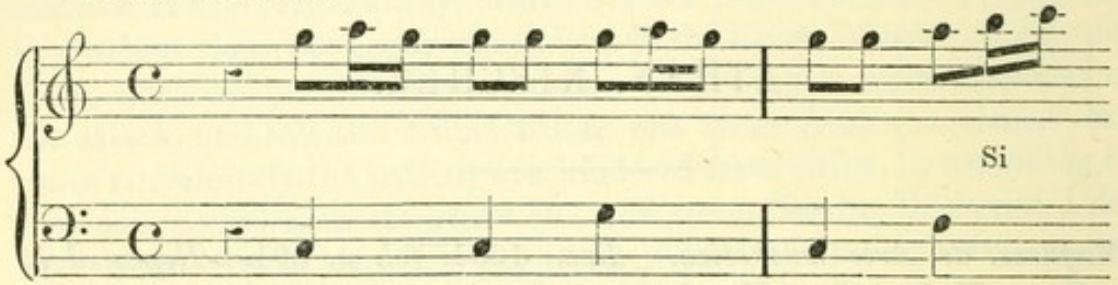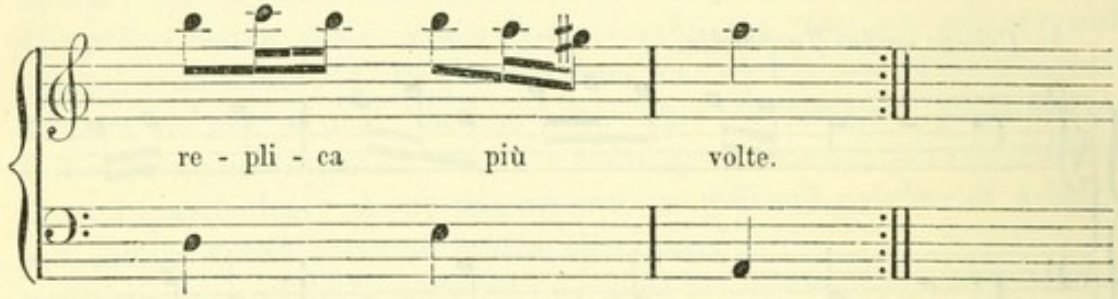


II. *Secundus modus.*



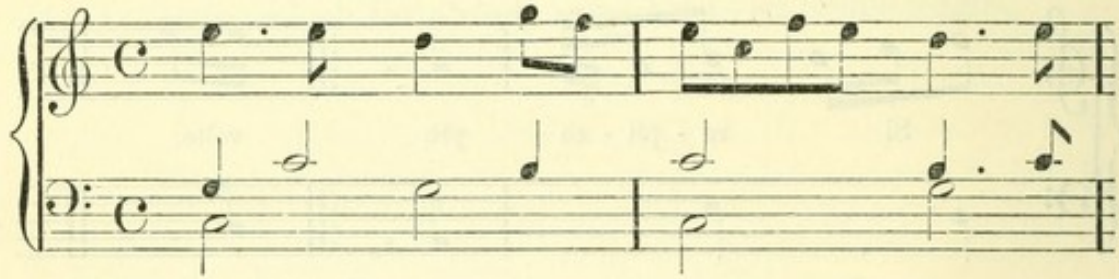


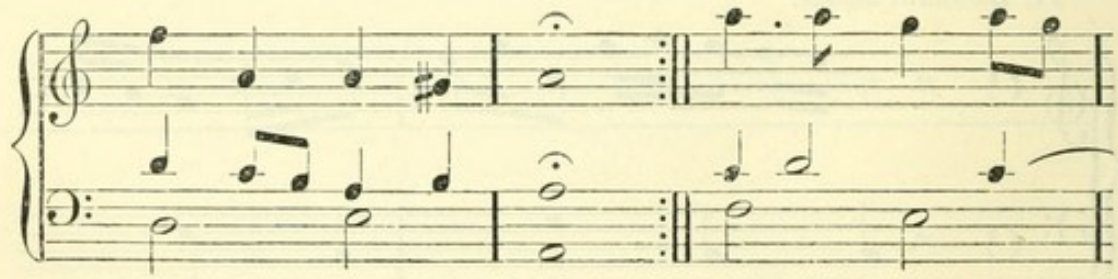
III. *Tertius modus.*
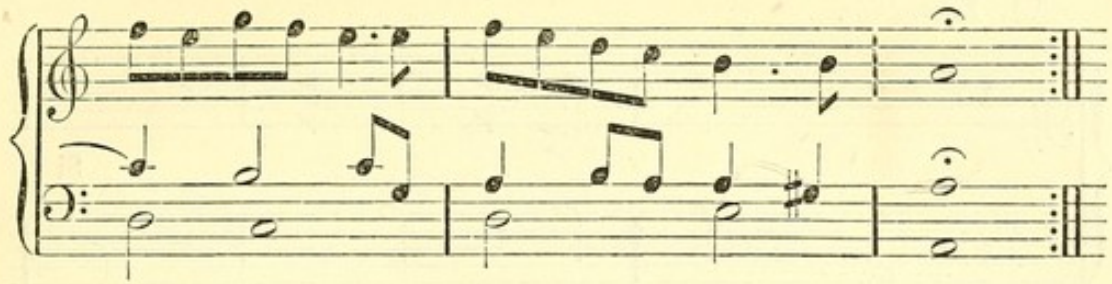




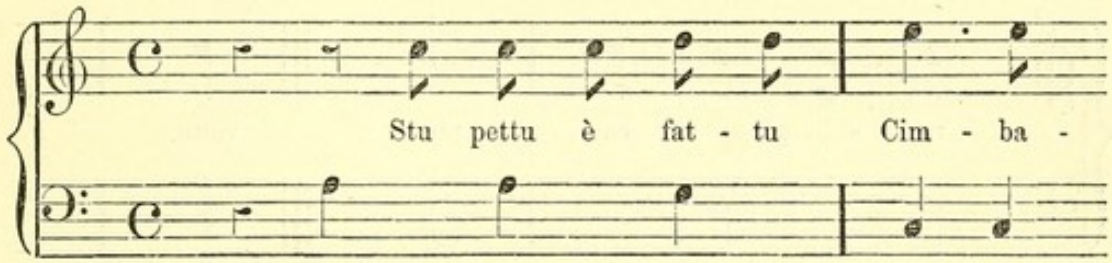
IV. *Antidotum Tarantulæ.*

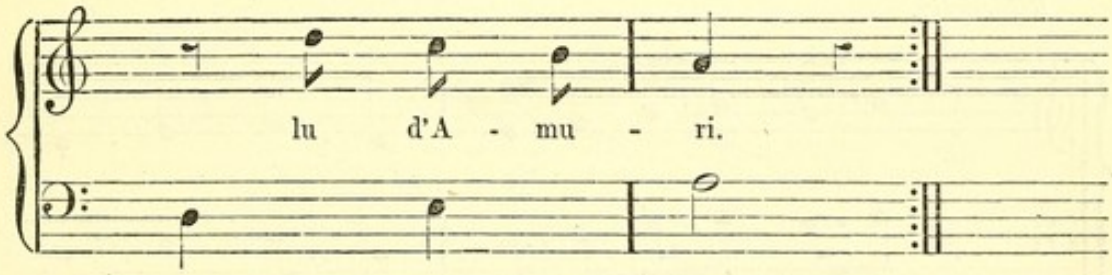






V.



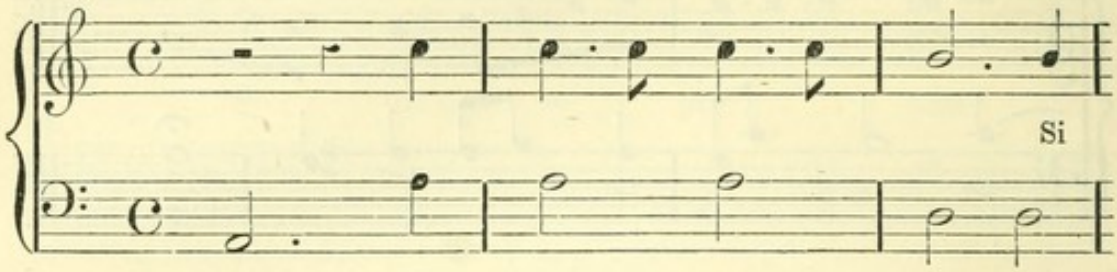


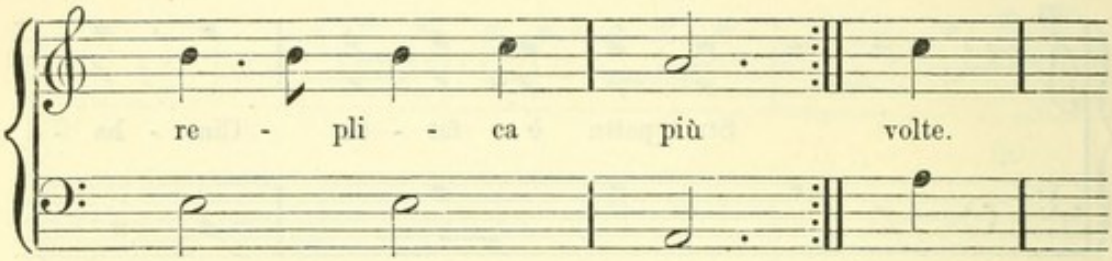
Stu pettu è fattu Cimbalu d'Amuri:
Testi li sensi mobili, e accorti:
Cordi li chianti, sospiri, e duluri:
Rosa è lu Cori miu feritu à morti:
Strali è lu ferru, chiai so li miei arduri:
Marteddu è lu pensieri, e la mia sorti:
Mastra è la Donna mia, ch'à tutti l'huri
Cantando canta leta la mia morti.

Some strophes, which are no longer extant, were usually sung between these and the following lines:—
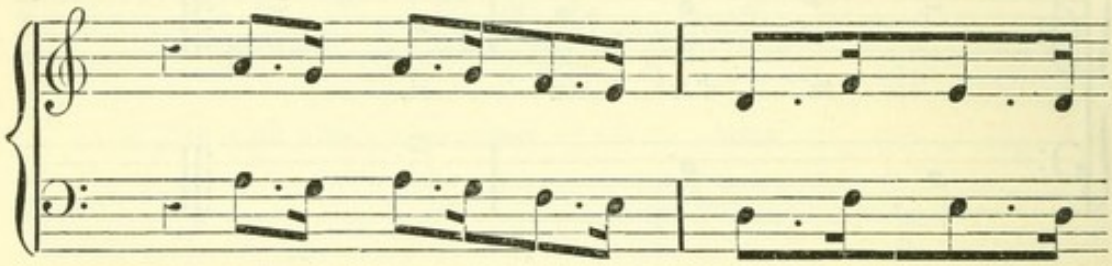
Allu mari mi portati,
Se voleti che mi sanati.
Allu mari, alla via:
Cosi m'ama la Donna mia.
Allu mari, allu mari:
Mentre campo, t'aggio amari.

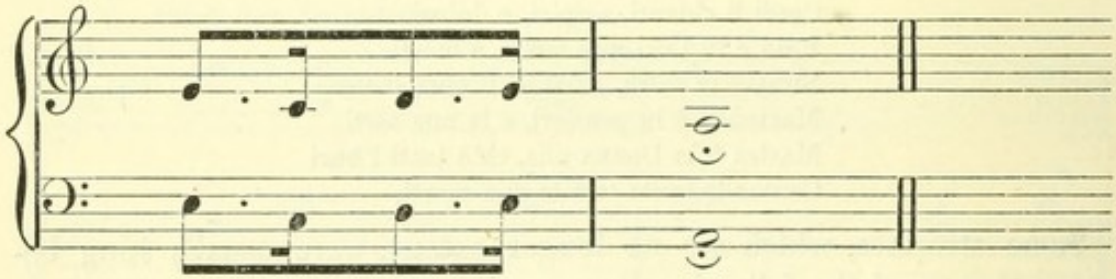
VI. *Tarantella.*



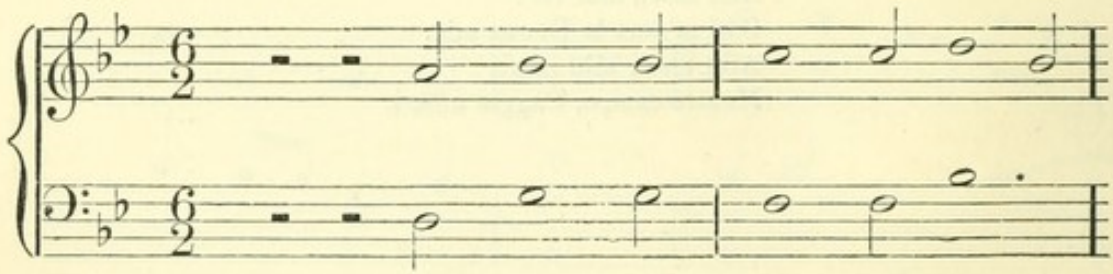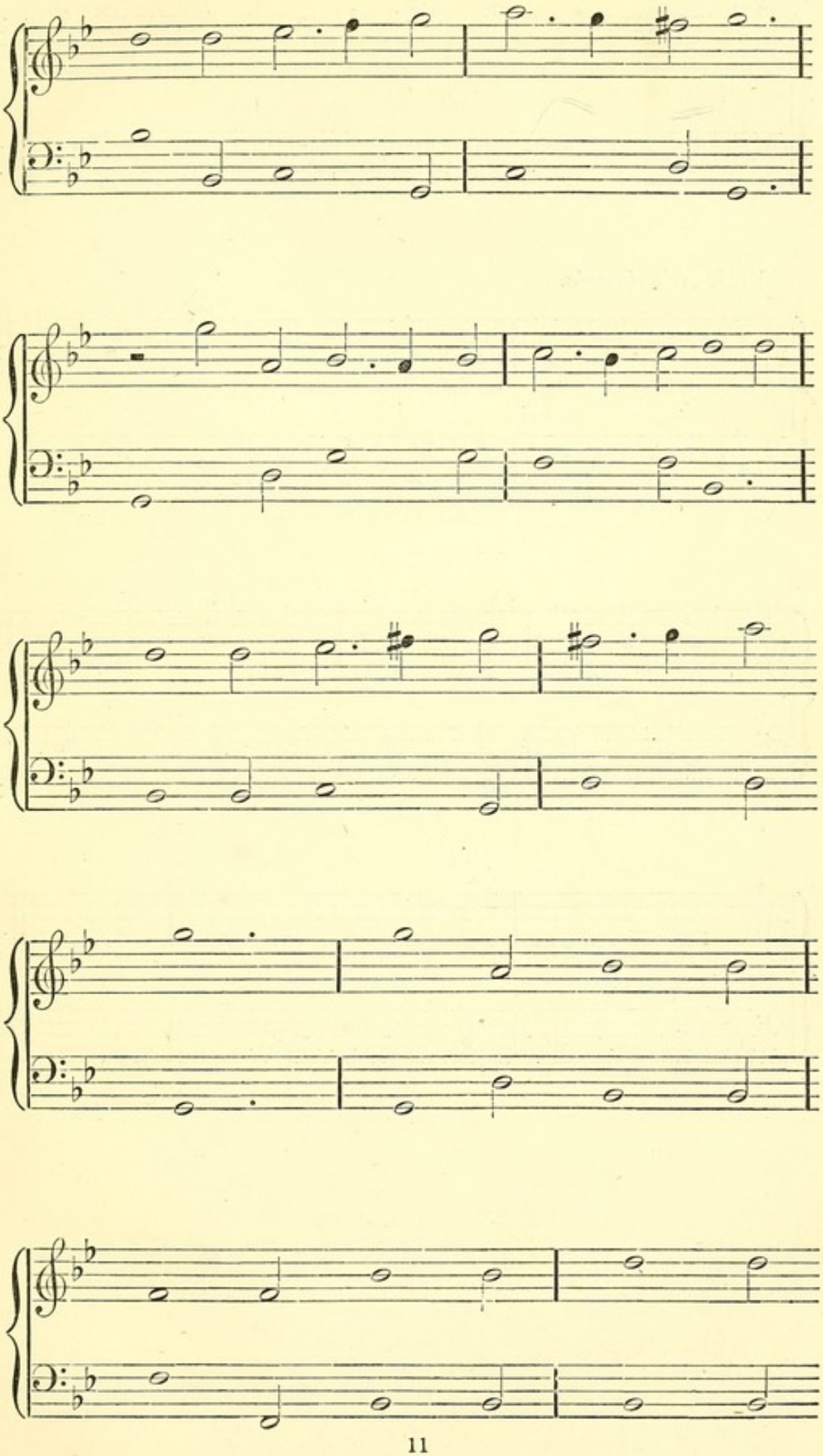


Ritornello.

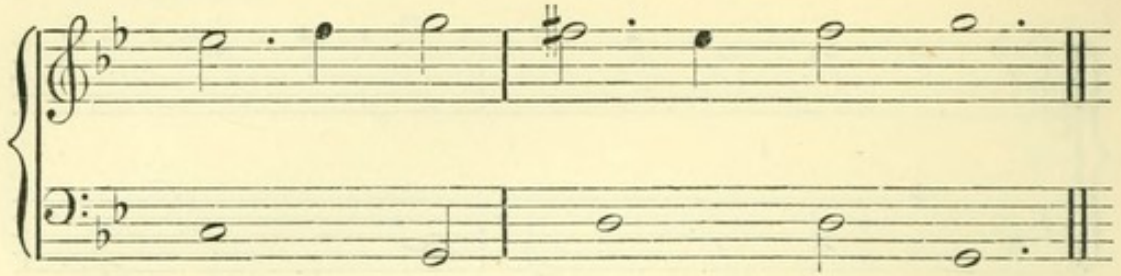




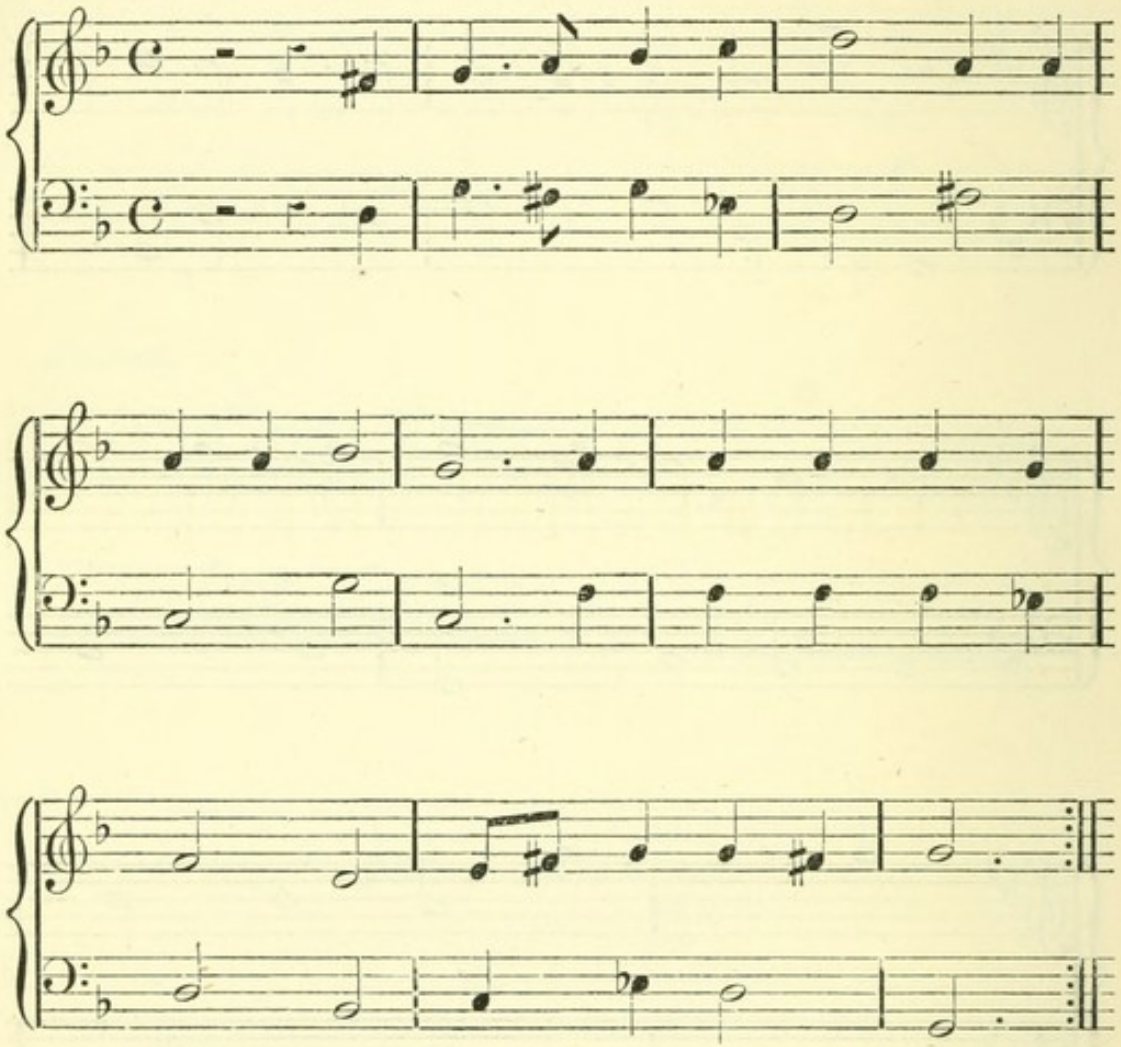
VII. *Tono hypodorio.*







VIII. *Alia clausula.*



THE SWEATING SICKNESS.

PREFACE.

THE present work is a continuation of my treatises on collateral subjects, and, like them, maintains the opinion, that great epidemics are epochs of development, wherein the mental energies of mankind are exerted in every direction. The history of the world bears indisputable testimony to this fact. The tendencies of the mind, the turn of thought of whole ages, have frequently depended on prevailing diseases; for nothing exercises a more potent influence over man, either in disposing him to calmness and submission, or in kindling in him the wildest passions, than the proximity of inevitable and universal danger. Often have infatuation and fanaticism, hatred and revenge, engendered by an overwhelming fear of death, spread fire and flames throughout the world. Famine and diseases, among which may be instanced the fiery plague of St. Anthony, were no less powerful in calling forth the chivalrous spirit of the crusades than the enthusiastic eloquence of Peter the Hermit—the Black Death brought thousands to the stake, and aroused the fearful penances of the Flagellants—while the oriental leprosy cast a gloomy shade over society throughout the whole course of the middle ages.

With all such commotions, the most striking events of the world are in intimate relation, and unquestionably, amid the changing forms of existence in the human race, more has always depended on the prevailing tone of thought than on the rude powers by which those events were produced. The historian, therefore, who would investigate the hidden influence of mind, cannot dispense with medical research. The facts themselves convince him of the organic union of the corporeal and the spiritual in all human affairs, and consequently of the innate vital connexion of all human knowledge. Hence, in a medical point of view, how vast is the field for observation presented by the history

of popular diseases. Present bodily sufferings[1] are, collectively, but a step in the development,—but one phase of morbid life amid a long series of phenomena, and hence are not fully understood without a previous knowledge of the past, and historical research. How can we recognise the ring of Saturn as such, so long as our axis of vision is in its plane, and we see it only as a line. Great pestilences have vanished or been dispersed; from causes apparently the most insignificant, the most important consequences have resulted, and throughout the vicissitudes of danger and devastation, the operations of mighty laws of nature are everywhere manifested in the social tendencies of entire centuries.

This is no aërial realm of transitory conjectures—facts themselves speak in a thousand reminiscences. If we do but investigate the past with unprejudiced assiduity—if we do but consider even the few successful researches which have hitherto been made in historical pathology (perhaps those who are kindly disposed will recognise even mine), we shall not fail to arrive at a centre of reality, which the healing art, to its great detriment, has hitherto been far from reaching, whilst it has occasionally penetrated into a less fertile soil, or even encumbered itself with the accumulated rubbish of the pedantic dogmas of the schools.

The state, which founds its legislation on a knowledge of realities, which expects from the physical sciences information respecting human life collectively, considered in all its relations, has a right to demand from its physicians a general insight into the nature and causes of popular diseases. Such an insight, however, as is worthy the dignity of a science, cannot be obtained by the observation of isolated epidemics, because nature never in any one of them displays herself in all her bearings, nor brings into action, at one time, more than a few of the laws of general disease. One generation, however rich it may be in stores of important knowledge, is never adequate to establish, on the foundation of actually observed phenomena, a doctrine of popular diseases worthy of the name. The experience of all ages is the source whence we must in this case draw, and medical investigation is the only road which leads to this source, unless, indeed, we would be unprepared to meet new epidemics, and would maintain the unfounded opinion that medical science, as it now exists, is the full result of all preceding efforts.

[1] The author seems to me here to allude to what Sydenham calls the "constitutio epidemica," as if he would say, "The epidemic constitution, as it exists at any one time, is but a step," &c.

An insight, not only into general visitations of disease, which in the course of ages have appeared in divers forms, but also into every single disease, whether it occurs in intimate connexion with others or not, is rendered more distinct by a knowledge of the contemporary circumstances which attend its development. I would fain hope, therefore, that the future research and diligence of physicians, devoted to the pursuit of truth and science, will be more generally directed to historical investigation; and that universities and academies will concede to it that prominent place which, from its high importance as an extensive branch of natural philosophy, it justly demands.

Whether the following inquiry into one of the most remarkable diseases on record corresponds with these views, I must leave my readers to judge. The historian will discern what social feelings are produced among nations by great events, and to the physician a picture of suffering will be unveiled, to which the diseases of the present time afford no parallel. I have throughout kept in view the spirit and the dignity of the sixteenth century, which was as remarkable for military triumphs as for tragic events; and I look with confidence for the same indulgence and goodwill now, which, through the kindness of friends, I have already enjoyed both at home and abroad, in a higher degree than my sincere gratitude can find words to express.

THE SWEATING SICKNESS.

CHAPTER I.

THE FIRST VISITATION OF THE DISEASE.—1485.

"Sound drums and trumpets, boldly and cheerfully,
God and Saint George! Richmond and victory!"—SHAKSPEARE.

SECT. 1.—ERUPTION.

AFTER the fate of England had been decided by the battle of Bosworth, on the 22nd of August, 1485,[1] the joy of the nation was clouded by a mortal disease which thinned the ranks of the warriors, and following in the rear of Henry's victorious army, spread in a few weeks from the distant mountains of Wales to the metropolis of the empire. It was a violent inflammatory fever, which, after a short rigor, prostrated the powers as with a blow; and amidst painful oppression at the stomach, head-ache, and lethargic stupor, suffused the whole body with a fetid perspiration. All this took place in the course of a few hours, and the crisis was always over within the space of a day and night.[2] The internal heat which the patient suffered was intolerable, yet every refrigerant was certain death. The people were seized with consternation when they saw that scarcely one in a hundred escaped,[3] and their first impression was that a reign commencing with such horrors would doubtless prove most inauspicious.[4]

[1] *Grafton*, Vol. II. pp. 147. 155.

[2] *Hall*, p. 425.

[3] For suddenlie a deadlie burning sweat so assailed their bodies and distempered their blood with a most ardent heat, that *scarce one amongst an hundred* that sickened did escape with life; for all in maner as soone as the sweat tooke them, or within a short time after, yeelded the ghost. *Holinshed*, Vol. III. p. 482. *Godwin*, p. 98. *Polydor. Vergilius*, L. XXVI. p. 567. *Wood*, T. I. A. 1485. p. 233. *Wood* takes his testimony respecting the symptoms of the disease at third hand from *Carol. Valesius* (Cap. XIV. p. 226), a French physician at Rome, about 1650, who employs *P. Foreest's* words. This last author, however, did not himself observe the English sweating sickness.

[4] *Bacon*, p. 36.

At first the new foe was scarcely heeded; citizens and peasants went in joyful processions to meet the victorious army. Henry's march from Bosworth towards London resembled a triumph, which was everywhere celebrated by festivals; for the nation, after its many years of civil war, looked forward to happier days than they had enjoyed under the blood-thirsty Richard.

Very shortly, however, after the king's entry into the capital on the 28th of August,[1] the Sweating Sickness,[2] as the disease was called, began to spread its ravages among the densely peopled streets of the city. Two lord mayors and six aldermen died within one week,[3] having scarcely laid aside their festive robes; many who had been in perfect health at night, were on the following morning numbered among the dead. The disease for the most part marked for its victims robust and vigorous men; and as many noble families lost their chiefs, extensive commercial houses their principals, and wards their guardians, the festivities were soon converted into grief and mourning. The coronation of the king, which was expected to overcome the scruples that many entertained of his right to the throne, was of necessity postponed in this general distress,[4] and the disease, in the mean time, spread without interruption and over the whole kingdom from east to west.[5]

It is agreed that the pestilence did not commence till the very beginning of August, 1485, and was in obvious connexion with the circumstances of the times. To return to their native country had long been the ardent desire of the Earl of Richmond and his faithful followers. At the age of 15 (1471), having escaped the vengeance of the House of York, and the assassins of Edward, he was overtaken by a storm, and fell into the hands of Francis II., Duke of Bretagne, who long detained him prisoner, but on the death of Edward, in 1483, supplied him with means to enforce his claims to the English throne, as the last descendant of the House of Lancaster. This first undertaking miscarried. A storm drove back the bold adventurer to Dieppe, and compelled him once more to throw himself, with his five hundred English followers, on the hospitality of Duke Francis. Richard's influence with the Duke, however, rendered his stay there somewhat dangerous. Richmond withdrew privately, and endeavoured to

[1] *Fabian*, p. 673.

[2] *Swetynge sykenesse* in the Chronicles.

[3] The Mayors' names were *Thomas Hylle* and *William Stocker*. *Fabian*, loc. cit.

[4] Until the 30th of October. *Grafton*, p. 158.

[5] *Wood*, loc. cit.

gain over to his cause Charles VIII., who was yet a minor. A small subsidy of French troops, some pieces of artillery, and an adequate supply of money, were finally granted to his repeated solicitations. This little band was quickly augmented to 2000 men, who were all embarked, and on the 25th of July, 1485, they weighed anchor at Havre, and seven days after, the standard of Richmond was raised in Milford Haven.[1]

They landed at the village of Dale, on the west side of the harbour, and on the evening of their arrival, or very early on the following morning, Richmond hastened to Haverfordwest, where no messenger had yet announced the renewal of the civil war. It appears that he reached Cardigan, on the northern shore, on the 3rd of August, and for the first time granted to his small but increasing army the repose of an encampment.

After a short halt he set forward with confidence, crossed the Severn at Shrewsbury,[2] turned from thence to Newport and Stafford, and pitched his camp at Litchfield, probably before the 18th of August.[3] The distance to this place from Milford Haven is 170 miles, and the road leads over wooded mountains and cultivated fields without touching upon any swampy lands. Litchfield, however, lies low, and it was here that the army encamped in a damp situation, till it broke up for the neighbouring field of Bosworth. Thither Richmond, with scarcely 5000 men, and having his right wing covered by a morass, went to meet his deadly foe, whose army doubled his own. The combat was at first furious, but in two hours Lord Stanley crowned the conqueror with Richard's diadem.[4]

All these events so rapidly succeeded each other in the course of three weeks, that the knights and soldiers of Richmond, more and more excited every day by fear and hope, were scarcely equal to such exertions. Yet the very rapidity of the movements of the army was the cause why the disease could not spread so quickly, nor obstruct the final decision of Bosworth, although the report of it had already, before this event, spread universal terror; so that Lord Stanley, when authoritatively summoned by Richard

[1] *Phil. de Comines*, Tom. I. p. 344. Compare the English chronicles quoted. The history of Croyland Abbey states that the 1st of August was the day of *Richmond's* arrival at Milford Haven. There exists no reason for departing from this statement with some modern writers, namely, *Kay du Chesne*, p. 1192, *Lilie*, p. 382, and *Marsolier*, who assert the landing of the army to have taken place on the 7th of August. Historia Croylandensis, p. 573, in *Jo. Fell.*

[2] *Grafton*, p. 147.

[3] *Stow*, p. 779.

[4] According to the unanimous statements of the chroniclers.

to repair to his standard, sought to gain time, and, by way of excuse, alleged the prevalence of the new disease.[1]

After the victory of Bosworth, King Henry remained two days in Leicester, and then without further delay hastened to London, which he reached in less than four days, unaccompanied by military parade, and attended only by a select body of followers. The remainder of his army, which stood greatly in need of repose after its severe toils, were not in a condition for marching, they therefore halted in the neighbouring towns, and were probably disbanded, according to the custom of the age.[2]

The Sweating Sickness is said not to have made its appearance in London till the 21st of September,[3] but historians have most likely intended by that day to mark the commencement of its virulence, which continued to the end of the following month, and lasted, therefore, in all, about five weeks.

During this short period a large portion of the population[4] fell victims to the new epidemic, and the lamentation was without bounds so long as the people were ignorant that this fearful disease, unable to establish its dominion, would only pass through the country like a flash of lightning, and then again give place to the active intercourse of society and the cheering hope of life.

There was no security against a second attack; for many who had recovered were seized by it, with equal violence, a second, and sometimes a third time, so that they had not even the slender consolation enjoyed by sufferers in the plague[5] and small-pox, of entire immunity after having once surmounted the danger.[6]

Thus by the end of the year the disease had spread over the whole of England, and visited every place with the same severity as the metropolis. Many persons of rank, of the ecclesiastical

[1] Histor. Croylandens. p. 573. *Fell.*

[2] *Bacon*, p. 7. *Marsolier*, p. 142. Yet in the Autumn of that same year *Henry* established, what no prior king of England ever had, a body-guard. It consisted of only 50 "Yomen of the Crowne," to each of whom there were appointed two men on foot—an archer and a demi-lance, and a groom to attend to his three horses. The first commander of this body-guard, which formed the most ancient stock whence sprang the English standing army, was *Henry Bourchier*, Earl of Essex. *Herbert of Cherbury*, p. 9. *Grafton*, and the other chroniclers, loc. cit. *Baker*, p. 254.

[3] *Bacon*, *Stow*, *Baker*, loc. cit. Rapin considered the middle of September as the period of the outbreak. T. IV. p. 386.

[4] "Infinite persons." *Bacon.* "A wonderful number." *Stow.* "Many thousands." *Baker*, loc. cit.

[5] The plague can scarcely be said to furnish this immunity, for though the second attack is an exception to a pretty general rule, it is one of by no means unfrequent occurrence.—*Transl. note.*

[6] *Holinshed*, Vol. III. p. 482.

and the civil classes, became its victims; and great was the consternation when, in the month of August, it broke out in Oxford. Professors and students fled in all directions; but death overtook many of them, and this celebrated university was deserted for six weeks.[1] Three months later it appeared at Croyland, and on the 14th of November, carried off Lambert Fossedyke, abbot of the monastery.[2] No authentic accounts from other quarters have been handed down to our times, but we may infer, from the general grief and anxiety which prevailed, that the loss of human life was very considerable.

Sect. 2.—The Physicians.

The physicians could do little or nothing for the people in this extremity.[3] They are nowhere alluded to throughout this epidemic, and even those who might have come forward to succour their fellow-citizens, had fallen into the errors of Galen, and their dialectic minds sank under this appalling phenomenon. This holds good even of the famous Thomas Linacre, subsequently physician in ordinary to two monarchs,[4] and founder of the College of Physicians, in 1518. In the prime of his youth he had been an eye-witness of the events at Oxford, and survived even the second and third eruption of the Sweating Sickness; but in none of his writings do we find a single word respecting this disease, which is of such permanent importance. In fact, the restorers of the medical science of ancient Greece, who were followed by all the most enlightened men in Europe, with the single exception of Linacre, occupied themselves rather with the ancient terms of art than with actual observation, and in their critical researches overlooked the important events that were passing before their eyes.[5] This reminds us of the later Greek physicians, who for four hundred

[1] *Wood*, p. 233. [2] Histor. Croyland. p. 569. *Fell.*

[3] No physick afforded any cure. *Baker*, p. 254.

[4] Henry VII., and Henry VIII. Compare the excellent biographical account of this learned man by *Aikin*.

[5] *Erasmus* expresses himself on this subject in his usual manner. He was on terms of strict friendship with *Linacre*, whom on other occasions he greatly lauds. This, however, does not prevent him from lashing him with his satire as a philological pedant. "Novi quendam πολυτεχνότατον, græcum, latinum, mathematicum, philosophum, medicum, καὶ ταῦτα βασιλικὸν, jam sexagenarium (he was born in 1460, and died in 1524), qui *ceteris rebus omissis*, annis plus viginti se torquet ac discruciat in grammatica, *prorsus felicem se fore ratus, si tamdiu liceat vivere, donec certo statuat, quomodo distinguendæ sint octo partes orationis*, quod hactenus nemo Græcorum aut Latinorum ad plenum præstare valuit." Laus Stultitiæ, p. 200. That *Linacre* is here meant is quite plain; the passage applies to no other contemporary.

years paid no attention to the small-pox, because they could find no description of it in the immortal works of Galen.[1]

No resource was therefore left to the terrified people of England but their own good sense, and this led them to the adoption of a plan of treatment, than which no physician in the world could have given them a better; namely, not to resort to any violent medicines, but to apply moderate heat, to abstain from food, taking only a small quantity of mild drink, and quietly to wait for four-and-twenty hours the crisis of this formidable malady. Those who were attacked during the day, in order to avoid any chill, immediately went to bed in their clothes, and those who sickened by night did not rise from their beds in the morning; while all carefully avoided exposing to the air even a hand or foot. Thus they anxiously guarded against heat or cold, so as not to excite perspiration by the former, nor to check it by the latter —for they well knew that either was certain death.[2]

The report of the infallibility of this method soon spread over the whole kingdom, and thus towards the commencement of 1486, many were rescued from death. On New Year's Day, a violent tempest arose in the south-east, and by purifying the atmosphere relieved the oppression under which the people laboured, and thus, to the joy of the whole nation, the epidemic was swept away without leaving a trace behind.[3]

Sect. 3.—Causes.

It was thought remarkable, even at that time, that the Sweating Sickness did not extend beyond the limits of England, and that, remaining the unenviable property of that nation, it did not even spread to Scotland, Ireland, or Calais, which belonged to Britain. Much, doubtless, was owing to the peculiarity of the climate, more still to atmospherical changes, and something also to the habits of the people and the circumstances of the times. It plainly appeared in the sequel that the English Sweating Sickness was a spirit of the mist, which hovered amid the dark clouds. Even in ordinary years, the atmosphere of England is loaded with these clouds during considerable periods, and in damp seasons they would prove the more injurious to health, as the English of those times were not accustomed to cleanliness, modera-

[1] See the author's History of Medicine, Book II. p. 311.

[2] *Grafton*, p. 161, and the other chroniclers.

[3] *Wood*, loc. cit.

tion in their diet, or even comfortable refinements. Gluttony was common among the nobility as well as among the lower classes; all were immoderately addicted to drinking,[1] and the manners of the age sanctioned this excess at their banquets and their festivities. If we consider that the disease mostly attacked strong and robust men—that portion of the people who abandoned themselves without restraint to all the pleasures of the table—while women, old men, and children, almost entirely escaped, it is obvious that a gross indulgence of the appetite must have had a considerable share in the production of this unparalleled plague.

To this may be added, the humidity of the year 1485, which is represented by most chronicles as very remarkable.[2] Throughout the whole of Europe the rain fell in torrents, and inundations were frequent. Damp weather is not prejudicial to health if it be merely temporary, but if the rain be excessive for a series of years, so that the ground is completely saturated, and the mists attract baneful exhalations out of the earth, man must necessarily suffer from the noxious state of the soil and atmosphere. Under these circumstances epidemics must inevitably follow. The five preceding years had been unusually wet,[3] 1485 proved equally so; the last hot and droughty summer was that of 1479.[4] Extensive inundations of the Tiber, the Po, the Danube, the Rhine, and most of the other great rivers, took place in 1480, and were attended with the usual consequences, the deterioration of the air, misery, and disease.[5] The greatest inundation ever remembered in England was that of the Severn, in October, 1483. It was long afterwards called the Duke of Buckingham's Great Water,[6] because it frustrated the rebellion of this powerful subject against Richard III., whom he had been instrumental in placing upon the throne; and consequently defeated also the first enterprise of Henry VII. It lasted full ten days, and the tremendous ravages occasioned by the overwhelming torrent dwelt long in the memory of the people.

[1] The luscious Greek wines were at this time the most in vogue, especially Cretan wine, Malmsey, and Muschat. *Lemnius*, de compl. L. II. fol. 111. b. *Reusner*, p. 70.

[2] *Werlich*, p. 248.

[3] *Spangenberg*, Mansf. Chr. fol. 395. f.

[4] *Werlich*, p. 236. *Spangenberg*, loc. cit. Overflow of the Lech, 1484. *Werlich*, p. 239.

[5] *Franck von Wörd*, fol. 211. a.

[6] *Grafton*, p. 133, and all the other chroniclers. *Short*, Vol. I. p. 201, and several others, even *Schnurrer*, erroneously asserted this inundation to have taken place in the year 1485.

Sect. 4.—Other Epidemics.

During the whole of this period the nations of Europe were visited with various and destructive plagues. In 1477, the Bubo-plague broke out in Italy, and raged without interruption till 1485.[1] It was accompanied by striking natural phenomena, among which we may reckon an enormous flight of locusts in 1478[2] and 1482, and remarkable intercurrent diseases, such as inflammatory pain in the side, throughout the whole of Italy in 1482.[3] In Switzerland and Southern Germany malignant epidemics[4] appeared in the train of drought and famine in 1480 and 1481, while putrid fever accompanied by phrenites,[5] prevailed in Westphalia, Hesse, and Friesland. There had never been in the memory of the inhabitants of these districts so many ignes fatui as during this period. There too the people suffered from the failure of the harvest, so that it was necessary to obtain supplies from Thuringen.[6] France, where, under the fearful reign of Louis XI., oppression and misery seemed to mock the gifts of heaven, became in 1482, after a two years' scarcity, the scene of a devastating plague. It was an inflammatory fever with delirium, accompanied by such intense pain in the head that many dashed out their brains against the wall, or rushed into the water; while others, after incessantly running to and fro, died in a state of the greatest agony. According to the notion of the age, this disease was attributed to astral influences, for it could not have been brought on only by famine, which left to the poor peasantry, south of the Loire, nothing but the roots of wild herbs to support their miserable existence,[7] since the higher classes were also frequently attacked.[8] This fever was without doubt accompanied

[1] *Campo*, p. 132. *Pfeufer*, p. 32.

[2] *Franck v. Wörd*, fol. 211. a. In the plague which followed, about 20,000 people died in Brixen, and 30,000 in Venice.

[3] *Fracastor.* p. 182. Morb. Contag. L. II.

[4] *Wurstisen*, p. 474. cap. 15. *Fracastor.* p. 136. *Spangenberg* (Pestilentz) calls this Epidemic of 1482, which spread all over Germany, Switzerland, and France, "*das phrenitische, schwerhitzig Pestilentzfieber*," the phrenitic, intensely ardent, plague-fever. Compare *Stumpff.* fol. 742. b.

[5] The so called *Hauptkrankheit.* [6] *Spangenberg*, Mansfeld. Chr. fol. 396. a.

[7] In many places women and children were obliged to draw the plough, from the want of draught cattle; they were obliged too to carry on the cultivation by night, that they might not be observed by the king's inhuman revenue officers.—*Mezeray*, Tom. II. p. 750.

[8] "Il couroit alors (1482) dans la France une dangereuse et mortelle maladie, qui affligeoit indifferemment les grands et les petits, bien qu'elle ne fut pas contagieuse.

by inflammation of the meninges, or even of the brain itself, and was, perhaps, identical with that which at the same period desolated the north-west of Germany as far as the shores of the North Sea, only that it was heightened by the greater natural vivacity and miserable situation of the French people, who were kept in a state of perpetual dread by the cruel executions of Louis.[1] This pestilence occasioned the king to follow the advice of his morose physician[2] in ordinary, and to keep himself closely confined within the town of Plessis des Tours. It was prohibited under a heavy penalty to speak in his presence of death which was carrying off its victims in all directions, and forty crossbowmen kept guard in the fosse of the castle to put to death every living thing which might approach.[3] Two years after, in 1484, virulent diseases[4] again visited Germany and Switzerland; and thus it seemed as if the nations were everywhere threatened with death and destruction.

Sect. 5.—Richmond's Army.

From these data, which might easily be extended,[5] it is evident that the Sweating Sickness of 1485 did not make its appearance without great and general premisory events, which for a series of years imparted to the people of England a susceptibility to dangerous and unusual diseases. If, besides this, we take into account the gloomy temperament of the English, and the general depression of their spirits, in consequence of the sanguinary wars of the red and white roses, a series of events which seems to have shaken their faith in an overruling Providence, we may readily conceive that it would require but a very slight impulse to excite

C'étoit une espèce de *fièvre chaude et frenetique, qui s'allumoit tout d'un coup dans le cerveau, et le brûloit avec de si cruelles douleurs, que les uns s'en cassoient la teste contre les murailles, les autres se précipitoient dans les puits*, ou se tuoient à force de courir çà et là. On en attribu la cause à quelque maligne influence des astres, et à la corruption, que la mauvaise nourriture de l'année précédente avoit formé dans le corps; d'autant que les vins et les bleds n'étant point venus à maturité, la disette avoit été si grande, principalement dans les provinces de delà la Loire, que les peuples n'avoient vécu que de racines et d'herbes." *Mezeray*, Tom. II. p. 746.

[1] It is expressly affirmed by the historians that many of the higher classes were sleepless from *the constant alarm and fear of Tristan's sword*. How greatly must such a condition have predisposed the mind to receive this destructive fever!

[2] *Jacques Cotier*. He extorted from his patients 10,000 dollars a month, but, after his master's death, was obliged to refund to *Charles* VIII. 100,000 dollars. *Comines*, L. VI. c. 12. p. 400.

[3] *Mezeray*, loc. cit.

[4] *Spangenberg*, Mansfeld. Chron. fol. 379. a. Pestilentz, 1485.

[5] Compare *Webster*, T. I. p. 147.

a powerful commotion in the mysterious mechanism of the human body. This impulse was evidently given by the landing of Richmond's army in the very year when great and portentous evils were anticipated; for on the 16th of March, the same day when Queen Ann, the unfortunate wife of Richard III., expired, a total eclipse of the sun enveloped all Europe in darkness, and gave rise to gloomy prognostications.[1] Even under ordinary circumstances, wars begat pestilential disorders—how much more inevitably must these have risen in the then existing state of affairs! Richmond's army consisted not of brave men animated by zeal to avenge their dishonoured country or to serve a good cause. It was composed of wandering freebooters, "vile landskneckte," as they were called in Germany, who assembled under his banner at Havre,—sharpshooters formed under Louis XI., who recklessly pillaged Normandy, and whom Charles VIII. gladly made over to Henry, in order to free his own peaceful territories from so great a scourge.[2] This army may not have been worse than others of the same period;[3] but cooped up as they were for a whole week in dirty ships, they doubtless carried about with them all the material for germinating the seeds of a pestilential disorder, which broke out soon after on the banks of the Severn and in the camp at Litchfield.

Sect. 6.—Nature of the Sweating Sickness.

Preliminary Investigation.

Before we proceed further, some account is here required of the nature of this disease. It was inflammatory rheumatic fever, with great disorder of the nervous system. This assumption is supported by the manner of its origin and its especial characteristic of being accompanied by a profuse and injurious perspiration.

[1] *Spangenberg*, Mansfeld. Chron. fol. 398. a., and many other chroniclers. The reader will have the goodness to observe, here and in similar places, that the text is not stating the opinion of the author, but the way in which these events were viewed in that age.

[2] — Il y avoit seulement en Normandie quelque troupes de franc-archers, de ceux, que *Louis XI.* avoit licenciez, qui couroit la campagne: et plusieurs faineants s'étant joints avec eux, ils detruisoient tout le païs, et on devoit même craindre, que ce mal ne se communiquât aux provinces voisines. Mais il se présenta alors une belle occasion de delivrer la France de ces pillards . . . et lui donna (*Charles VIII.*) tout ces francs-archers et *brigands* de Normandie jusqu'au nombre de 3000. *Mezeray*, T. II. p. 762.

[3] "La milice estoit plus cruelle et plus desordonnée que jamais." So says *Mezeray* of the French soldiers in general. T. II. p. 750.

From the judgment that we are now capable of forming of the pernicious influences which prevailed in the year 1485, it may, without hesitation, be admitted that the humidity of that and of the preceding years affected the functions of the lungs and of the skin, and disturbed the relation of this very important tissue to the internal organs of life. This is the usual commencement of rheumatic fevers, which bear the same relation to the sweating sickness as slight symptoms bear to severe ones of the same kind. The predominance of affections of the brain and of the nerves, however, gave to the English epidemic a peculiar character. The functions of the eighth pair of nerves were violently disordered in this disease, as was shown by oppressed respiration and extreme anxiety with nausea and vomiting, symptoms to which the moderns attach much importance.[1] The stupor and profound lethargy show that there was injury of the brain, to which, in all probability, was added a stagnation of black blood in the torpid veins. We must also take into the account a previous corruption and decomposition of the blood, which, even if we should be disinclined to infer their existence from the offensive perspiration of the disease itself, were proved by striking phenomena of a similar nature that occurred in Central Europe about the same time; for the scurvy prevailed as an epidemic, more especially in Germany, in the year 1486, and with such severe and unusual symptoms, that people were inclined to regard it as a totally new malady.[2] Now such is the vital connexion of different functions that every impediment to respiration, whether in consequence of pressure from without, or through spasm and irritation of the nerves from within, or even from a morbid condition of the circulating fluid, infallibly calls forth the compensating activity of the skin, and the body becomes suffused with an alleviating perspiration.

Thus it plainly appears that the profuse perspiration in the disease of which we are treating, notwithstanding its apparently injurious tendency, was the result of a commotion excited on the part of the lungs, which was critical with respect to the disease itself; and this is in accordance with all the causes of which we still have any knowledge. Noxious and even stinking fogs pene-

[1] *Schiller*, Sect. II. c. 1. p. 131. b.

[2] *Angelus*, p. 253. *Spangenberg*, M. Chr. fol. 398. b. The scurvy affected society far more in the 15th and 16th centuries than it does at present, and made its appearance on several occasions as an epidemic. Compare, in particular, *Reusner*, whose work on the history of epidemics is one of general importance. *Sennert*, *Wier*, and others.

trated into the organs of respiration, and as the blood was thus so much affected in its composition and in its vitality that its corrupt state was only to be obviated by profuse perspiration, the inevitable consequence was an interference with the extensive functions of the eighth pair of nerves, which interference, as later writers relate, extended in many cases to the spinal marrow, and brought on violent convulsions.[1] We have here only one essential cause, out of many, for this gigantic disease, and one too which accounts for its advance and spread. It is highly probable, for the reasons stated, and as according with all human experience, that it first broke out in the army of Henry the VIIth, and beyond all doubt that it spread from west to east, and afterwards in a retrograde course from east to west. With the perfectly equable operation of the predisposing causes, from which the diseases ought indubitably to have broken out all over England at the same time, had the condition of the atmosphere been its sole occasion, we must additionally presume a special cause for its progress through towns and villages. This, according to all appearance, was to be found in the air, impregnated with foul odours, which surrounded the sick, and abounded in the tents and dwellings in which Henry the VIIth's soldiers, after various privations and hard service, amid storms and rain, were closely crowded together. Of both causes modern observation furnishes analogous examples. Intermittent fevers spread more easily in air which is contaminated by sick people, and bands of soldiers, themselves in perfect health, have not unfrequently conveyed camp fever to remote places. It signifies very little by what expressions of the schools these occurrences are designated; it is best perhaps to abstain from them altogether, for they are all inadequate and occasion misconceptions. Contemporaries, however, were certainly justified in not admitting the notion of contagion in the same sense as when the term is applied to the plague, with which they were well acquainted.[2] For very frequently cases, which were not to be explained on the principle of contagion communicated by persons diseased, occurred among people of rank, and manifestly arose independently of the usual causes. In these cases the fear of death, which everywhere was the harbinger of the disease, and threw the nerves of the chest into spasmodic

[1] *Schiller*, loc. cit.

[2] It was conceived not to bee an epidemicke disease, but to proceed from a malignitie in the constitution of the aire, gathered by the predispositions of seasons: and the speedie cessation declared as much. *Bacon*, p. 9.

commotion, gave an impulse to the malady for which the quality of the atmosphere and luxury had long made preparation. Had this view of contemporaries been even less impartial than it really was, it would have found the most striking confirmation in the sudden cessation of the pestilence throughout the whole country. For the destructive spirits of air, which would not have been discerned even by the proud naturalists of the nineteenth century, dispersed and vanished for half an age in the fury of the tempest which raged on the 1st of January, 1486.

CHAPTER II.

THE SECOND VISITATION OF THE DISEASE.—1506.

"The times were rough and full of mutations and rare incidents."—*Bacon.*

SECT. 1.—MERCENARY TROOPS.

AT the commencement of the sixteenth century, society was very differently constituted from what it was at the period when Henry the VIIth unfurled his banner for victory. The darkness of the middle ages had receded, as at the approach of a sun still hidden behind a cloud. The mind unconsciously expanded in the unwonted light of day—the whole earth was on the eve of renovation—new energies were to be called into action—events more stupendous had never occurred, nor had more creative ideas ever aroused the spirit of man. The invention of Guttenberg burst through the bonds of mental darkness, and gave to freedom of thought imperishable wings; unsuspected powers successively developed themselves; and, while in Western Europe an ardent desire arose boldly to overstep the ancient limits of human activity, the hopes of the more enlightened fell far short of the actual result of such unexpected events. The discovery of the New World, and the circumnavigation of Africa, laid the foundation for great improvements; yet the events in Central Europe, though less striking to contemporaries, were in their consequences infinitely more important and beneficial. The establishment of civil order among all the nations of the West took place at this period, which forms so important a boundary between the middle ages and modern times. Regal power was fixed on a firm basis, and when the castles had fallen before the artillery of the princes and imperial cities, so that the petty feudal barons were compelled to swear

obedience to the laws, an end was put to the incessant predatory feuds which had so long desolated Europe, and the establishment of internal peace was followed by the security of life and property—the first essential of refinement in manners and of the free development of human society.

This great result of a concatenation of circumstances was not, however, brought about without violent struggles and innovations, the effects of which were felt for centuries; but it was probably *the establishment of standing armies* which had the greatest influence on European civilization. They became indeed the pillars of civil order, but having proceeded immediately from the pernicious mercenary system, they long nourished the seeds of unrestrained depravity, and transmitted to later generations the corruptions of the middle ages. The Lansquenets[1] (Landsknecte) of the emperor, and the mercenaries of the kings of France and England, who, during the war, had joined the smaller branches of the standing army, were homeless adventurers from every country in Europe, and were allured, not by military ambition, but solely by the prospect of booty.[2] In whatever country the drum beat to arms, they flocked together like swarms of locusts—no one knew from whence—and defying the feeble restraints of military discipline, indulged, during the continuance of the war, in all the unbridled licence of a predatory life.

Hence the unbounded barbarity of their mode of warfare, which was restrained only by the individual exertions of more humane commanders. There was, however, a decided contrariety between this system and the moral condition of the people of Western Europe; a contrariety which was never entirely removed by the subsequent introduction of a more strict military discipline, and which has been done away only in modern times, by the establishment of regular armies on a system more congenial to the feelings of the people. Hence the consequences were the more pernicious, for when the armies were disbanded on the conclusion of peace, the Landsknechts dispersed in all directions, not to follow the plough again, or to resume their former occupations, but to pass their time in idleness and dissipation, if enriched by booty, and if

[1] The name passed into the French, English, and Italian languages—Lansquenet, Lancichinecho.

[2] ——— "flock together like flies in summer, so that any one would wonder where all these swarms have sprung from, and how they are maintained during the winter; and truly they are such a miserable crew, that one ought rather to pity than envy the kind of life they lead and their precarious fortune." *Franck's* Chronicle. "*On the destructive Lansquenets*," fol. 217. b.

reduced to poverty by intemperance and gambling, to infest the country as mendicants or robbers, till a new war again summoned them from their dishonourable mode of life.[1] Probably but very few were ever able to rise from such deep degradation, and many fell early victims to their vices,[2] while the infection of their example brought fresh accessions from every town and village to the mercenary legions.

Sect. 2.—New Circumstances.

It is evident that in such a condition of affairs, the effect which the plague produced on civil society must have been different from that of former times. Pernicious influences which, during the middle ages, had endangered the health of the inhabitants of towns, and had often rendered disorders, naturally slight, in the highest degree malignant, were for ever removed. Under this head may be mentioned more particularly the ill-contrived construction of the houses and streets, which even yet, in large cities, destroys the comfort of the inhabitants of whole districts, and those not of the poorest class only. As people acquired confidence in the security of peace, it ceased to be necessary to protect every country town by fortifications. The walls were thrown down, the stagnant moats were filled up, and as people were no longer limited to a narrow space, they built more convenient houses in airy streets; the dark alleys and damp dwellings under ground were gradually abandoned, and a more comfortable mode of living superseded the former misery. By this means the mortality was considerably diminished, and the power of epidemics was checked; nor can it be doubted, that the better administration of the laws greatly obviated the dissolution of social ties in times of plague, and the effects of superstition and religious animosity, which had formerly been so frightful. These inestimable national improvements, however, took place but gradually, and were not a little retarded for a time by the new evil of the employment of mercenaries. For as the germs of vice were scattered in all directions by the wandering Lansquenets, so also the infection of noxious diseases found easier entrance into the towns and villages through the medium of this dissolute and widely-spread class of

[1] 1518. "This year there was a great gathering of the Landsknects, who, as soon as they had assembled, went forth from Friesland, committed great ravages, and made an incursion into the country at Gellern, and were beaten by *Vernlow*." *Wintzenberger*, fol. 23. a.

[2] "Not to mention too the curtailment of life, for one *seldom meets with an old Landsknecht*." *Franck*, loc. cit.

men. The Lansquenets of the sixteenth century, as spreaders of contagion, supplied the place of the former Romish pilgrims and flagellants; they even proved a more permanent scourge than those wanderers of the middle ages, who only made their appearance on extraordinary occasions. We need here only call to mind the malignant and beyond measure noisome lues which at the end of the fifteenth century spread with the rapidity of lightning over all Europe. It was not an importation from the innocent inhabitants of the New World, nor was it bred by the ill-treated Marrani,[1] the victims of the Spanish Inquisition. It was the mercenary army of Charles the VIIIth in Naples (1495), whose excesses gave to the already existing poison a malignity till then unknown, and prepared for the deeply-rooted depravity a scourge at which all the world shuddered with horror. It is, moreover, in place here to observe that, in the larger armies which the new military system now brought into the field, the ordinary camp diseases, to which another very fatal one was added,[2] were of course much more extensively propagated than in the less numerous forces of preceding centuries, and consequently that the peaceful inhabitants of the towns and of the country at large were thereby exposed to much danger.

Sect. 3.—Sweating Sickness.

Meantime Europe was frequently and very severely visited by the epidemics of the middle ages, the terrors of the constantly recurring plague being borne with gloomy resignation to the inevitable evil with which, as a merited chastisement, the anger of God, according to the notion of the times, afflicted the human race. Even the English were not exempt from this fearful visitation, which, in the year 1499, carried off 30,000 people in London alone, so that the king found it advisable to retire with all his court to Calais.[3] Thus the recollection of the Sweating Sickness of 1485 was gradually obliterated. No one thought of its possible return, and all the world was occupied with other matters, when the old enemy unexpectedly again raised his head in the summer of 1506, and scared away this comfortable state of false security. The renewed eruption of the epidemic was not, on this occasion, connected with any important occurrence, so that contemporaries

[1] Those Moors were so called who, in order to remain in Spain after the conquest of Granada, embraced Christianity.—*Transl. note.*

[2] The petechial fever, which will be spoken of further on.

[3] *Grafton*, p. 220. *Webster*,, Vol. I. p. 149.

have not even mentioned the month in which it began to rage. Towards the autumn it had again disappeared, and as no new symptoms were added to the disease, the form of which was identified by a reference to the old descriptions, it was immediately treated by the same means, the efficacy of which those who had witnessed the epidemic of 1485 lauded with so much reason.[1] Every exposure to heat or cold was, as at that time, avoided, and the malignant fever was left to the curative powers of nature, the patient being kept moderately warm in bed; and no powerful medicines being administered. The result was beyond all expectation favourable, for in few houses did any fatal cases occur. The victory over this dreaded enemy was now, by a pardonable error, attributed more to human skill than to the mildness of the malady on this occasion, which, even under a less judicious treatment of the sick, would certainly not have been marked by any considerable degree of severity.

The disease broke out in London, but whether it penetrated to the west or not, contemporary writers, being soon convinced of its slight character, have left us no intelligence. However widely it may have spread, it certainly was confined to England, and nowhere occasioned any great mortality.

Sect. 4.—Accompanying Phenomena.

As the epidemic was on this occasion so very mild, it was not accompanied by any remarkable phenomena in England, but the case was otherwise in the rest of Europe, as will be proved by the following details. After a wet summer, in the year 1505, a severe winter set in.[2] Comets were seen in this as in the following year. An eruption of Vesuvius also took place in 1506,[3] which may be mentioned, although it is well established that volcanic commotions are to be taken into account only in great pestilences, not in less extensive epidemics. In England there blew a violent storm from the south-west, from the 15th till the 26th of January, 1506, which drove the king of Castille, Philip of Austria, with his consort Johanna, from the Netherlands to Weymouth; and as, some days before, a golden eagle falling from St. Paul's church, in London, had crushed a black eagle which ornamented some lower building, evil predictions were promulgated among the people re-

[1] *Stow*, p. 809. *Fabian*, p. 689. *Hall*, p. 502. *Grafton*, p. 230. *Holinshed*, p. 536. *Bacon*, p. 225.

[2] *Spangenberg*, M. Chr. fol. 403. a. Pestilenz, A. 1505.

[3] *Webster*, Vol. I. p. 151. *Franck*, fol. 219. a. *Pingré*, T. I. p. 481.

specting the fate of this son of the emperor.[1] This event, however, could not be considered as at all connected with the pestilence which broke out about half a year afterwards. More consideration is due to the gloom and anxiety which at that time depressed the spirit of the English nation. The reckless avarice of Henry the VIIth, named the English Solomon,[2] gave just ground for doubts regarding the security of property; and the pious foundations—those accustomed means of softening the dreaded wrath of Heaven, which the king, who became gradually more and more broken down by disease, established, could not efface the recollection of the arbitrary violence and extortions of his corrupt servants.[3] Although these extortions principally affected the wealthy nobility, who were much in need of restraint, yet dark mistrust was general, and all cheerfulness was banished from the minds of the people. This state of feeling might have been favourable to the propagation of the returning disease, but the genius of the year 1506 would not suffer it to be more than a slight and transient reminiscence of a mystically hidden danger, the import of which was not apparent to any medical inquirer of the 16th century.

Sect. 5.—Petechial Fever in Italy, 1505.

Thus, if we paid attention, as usual, only to the palpable occurrences which take place on the earth and beneath its surface, the Sweating Sickness of the above-mentioned year might appear to be unconnected with more considerable commotions of organic life. The powers of nature, however, are in their operations too subtle to be comprehended by our dull senses and by the coarse mechanism of our organs; nay, precisely at a time when neither the one nor the other indicate any alteration around us, those operations bring to light the most extraordinary phenomena in the human frame—that most sensitive index of secret influences on life. This observation was fully confirmed at the time of the first return of the sweating fever. For whilst this disease remained confined to England, there appeared in the southern and central parts of Europe a new and fatal epidemic, which thenceforth

[1] *Bacon*, p. 225. *Stow*, p. 809. Compare the other chroniclers, who most of them notice this event in great detail.

[2] *Bacon*, p. 231.

[3] *Empson* and *Dudley*, ministers of Henry VII., who left behind him treasure to the amount of £1,800,000 sterling. Compare *Hume*, Hist. of Eng. Vol. III., *Bacon*, and almost all the chroniclers. Both ministers were executed in the following reign, in the year 1509. *Grafton*, p. 236.

visited these nations almost continually with intense malignity. This was the petechial fever, a disease unknown to the older physicians, which was first observed in 1490, in Granada, where it threatened to annihilate the army of Ferdinand the Catholic, and made great havoc also among the Saracens.[1] The bubo plague had immediately preceded it (1483, 1485, 1486, 1488, 1489, and 1490),[2] and it may with no small probability be assumed that the petechial fever had resulted from this as a peculiar variety, since in other countries also, fifteen years later, the bubo plague degenerated in various ways, and examples are not wanting in which particular forms or constituent parts of great epidemics thus branch off from them, in the same manner as, under favourable circumstances, these will combine together, and united into one destructive whole, multiply the sources of danger.

Yet some contemporaries were of opinion that the petechial fever had been brought over to Granada[3] by Venetian mercenaries from Cyprus, where they had fought against the Turks, and where this disorder was said to have been indigenous. Notwithstanding some good works[4] already existing, this matter has need of a more thorough examination, which might bring to light important and instructive results, respecting the rise and spread of the petechial fever, and especially respecting its relation to other plagues. Whatever may be held with regard to the true origin of this fever, thus much is established, that it was at first an independent European disease, and that, at the commencement, having occupied the southern part of this quarter of the world, it then became connected, in a manner as extraordinary as it was worthy of observation, with the sweating sickness of the north; since the nearly simultaneous eruption of the sweating fever in England, with the great epidemic petechial fever in the year 1505, may be justly attributed to an influence common to both, although unquestionably of greater power in the latter.

The epidemic petechial fever, of which we are now treating, prevailed principally in Italy, and is described by Fracastoro as the first plague of this kind which ever appeared in that

[1] *Villalba*, T. I. pp. 69. 99.—*Ferdinand's* conflicts with the Saracens began in 1481, and ended with the fall of Granada in 1492. The disease is called in Spanish *Tabardillo*, which name, however, *Villalba* has not quoted at so early a period as 1490.

[2] *Villalba*, loc. cit. p. 66.

[3] Ibid. p. 69.—*Fracastor.* de morbis contagios. L. II. c. 6. p. 155.—*Schencke von Grafenberg*, L. VI. p. 553. T. II.

[4] Besides those already named, the writings of *Omodei* and *Pfeufer*. Compare *Schnurrer*, Book II. p. 27.

country. Of this new disease,[1] which was placed by this great physician midway between the bubo plague and the non-pestilential fever, the contagious quality showed itself from the beginning; yet it was plainly perceived, that the contagion did not take effect so quickly as in the bubo plague, that it was not conveyed so easily by means of clothing and other articles, and that physicians and attendants on the sick were the only persons who incurred much danger of infection. The fever began insidiously, and with very slight symptoms, so that the sick in general did not so much as seek medical aid. Many persons, and even physicians among the number, suffered themselves to be deceived by this circumstance, and thus, not being aware of the danger, they hoped to effect an easy cure, and were not a little astonished at the sudden development of malignant phenomena. The heat was inconsiderable, in proportion to the fever, yet those affected felt a certain inward indisposition, a general depression of all the vital powers, and a weariness as if after great exertion. They lay upon their backs with an oppressed brain, their senses were blunted, and in most cases delirium and gloomy muttering, with bloodshot eyes, commenced from the fourth to the seventh day. The urine was usually clear and copious at the beginning, it then became red and turbid, or resembling pomegranate wine (granatwein), the pulse was slow and small, the evacuations putrid and offensive, and either on the fourth or seventh day red or purple spots, like flea-bites, or larger, or resembling lentils (lenticulæ), which also gave a name to the disorder, broke out on the arms, the back, and the breast. There was either no thirst at all, or very little; the tongue was loaded, and in many cases a lethargic state came on. Others, on the contrary, suffered from sleeplessness, or from both these symptoms alternately. The disease reached its height on the seventh or on the fourteenth day, and in some cases still later. In many there existed a retention of urine with very unfavourable prognosis. Women seldom died of this fever, elderly people still more rarely, and Jews scarcely ever. Young people, on the other hand, and children died in great numbers, and especially from among the higher ranks, while the plague, on the contrary, used generally to commit its ravages only among the poorer classes. An inordinate loss of power in the commencement betokened death, as also a too violent effect from mild aperient means, and a failure in alleviation after a complete crisis. Patients were seen to die who

[1] It was called Puncticula or Peticulæ, also Febris stigmatica, Pestis petechiosa. *Reusner*, p. 11. For later synonimes, see *Burserius*, Vol. II. p. 293.

had lost to the extent of three pounds of blood from the nose. It was also a very bad sign when the spots disappeared, or broke out tardily, or were of a blackish-blue colour. Phenomena of an opposite character, on the contrary, afforded hope of recovery.

The best physicians were agreed on the importance of the petechiæ as an indication of the nature of the crisis; for those cases in which they were abundant and of a good quality were cured much more easily than those in which the eruption was suppressed. An abundant perspiration also was particularly conducive to recovery, whereas all other evacuations, especially a flux from the bowels, proved to be injurious and even fatal.

If we keep these phenomena in view, and consider, moreover, that in the widely extending lues venerea of those times cutaneous eruptions predominated over the other symptoms, the English sweating sickness in the north of Europe will appear, as in connexion with this circumstance, of a very important character; and the supposition, that the morbid activity of the system during the whole of this age maintained a decided determination to the skin, may thence be fairly considered as something more than a mere conjecture.

This fact speaks for itself, but the causes of this altered temperament of the body it is not an easy matter to discover. Fracastoro, who knew much better than his modern followers how to manage his sagacious doctrine of contagion, looked for these causes in the quality of the air, which was manifest by much more evident phenomena in the epidemic petechial fever of 1528 than in that of 1505, and he traced an active connexion between this quality, which he called "infection of the atmosphere,"[1] and the condition of the blood; thus indicating unknown influences by an obscure notion. He considered the altered quality of the blood according to the established views of that period, which the petechial spotted fever seemed clearly to confirm, as a putrefaction; and he even assumed that, in the non-epidemic petechial fevers, which, from the year 1505 forward, frequently occurred, isolated causes must have given rise to changes in the blood, as well as that quality of the air, to which this great physician attributed the general and continued alterations which take place in the nature of diseases.

[1] Consimilem ergo *infectionem in aëre* primum fuisse censendum est, quæ mox in nos ingesta tale febrium genus attulerit, quæ tametsi pestilentes veræ non sunt, in limine tamen earum videntur esse. Analogia vero ejus contagionis ad sanguinem præcipue esse constat, quod et maculæ illæ, quæ expelli consuevere, demonstrant, etc., p. 161.

The petechial fever made the same impression on the physicians of Italy as new disorders have ever made; for although they were the best in Europe, their view was bounded by the horizon of Galen, within the limits of which the novel phenomenon was not to be found. They were therefore soon perplexed, and whilst they sought to entrammel the dreaded enemy with scholastic doctrines of repletion and acrimony and occult qualities, and betook themselves first to one remedy and then to another, they exposed themselves to the derision of the people, who soon perceived their disagreement and indecision, and, as usual, charged on the whole medical profession the well-merited blame of individuals.[1]

Sect. 6.—Other Diseases.

About this same period, in October, 1505, a very fatal disease broke out in Lisbon, the further progress of which was marked by the terror, the flight, and the confusion of the inhabitants.[2] Of what kind it was, whether a petechial fever or a bubo plague, and what connexion it had with the pestilence in Spain which had just preceded it, it would perhaps be difficult now to ascertain. This latter pestilence had spread from Seville, following an earthquake, and violent storms of wind and rain, in 1504, and may very likely have been a bubo plague. Similar notices are met with of pestilences occurring in that country in 1506, the year of the English sweating sickness, in 1507 and 1508, in which years mention is made of swarms of locusts in the neighbourhood of Seville, and finally in 1510, the year of a great influenza,[3] and 1515. Exact descriptions, however, of these disorders are entirely wanting.[4]

With all the above phenomena, the epidemics which took place in Germany and France at the commencement of the sixteenth century, evidently unite to form a connected whole. Varying in intensity and extent, they continued without intermission for full five years, and moreover were accompanied by unusual circumstances, such as occur only in the time of great pestilences. The century was ushered in by the appearance of a comet,[5] which,

[1] Compare the whole of the sixth and seventh chapters of *Fracastor*. loc. cit. What was the general judgment of the Italian physicians respecting the spotted fever, may be gathered from *Nic. Massa*, whose confused work, however, contributes nothing to the history of the disease. Cap. IV. fol. 67, seq. Compare *Schenck von Grafenberg's* excellent and very copious treatise, de febre stigmatica. L. VI. p. 553, Tom. II.

[2] *Osorio*, fol. 113. b., 114. a. [3] See further on. [4] *Villalba*, p. 78, et seq.

[5] *Spangenberg*, M. Chr. fol. 402. a. *Angelus*, p. 261. *Pingré*, T. I. p. 479.

on this occasion, seemed to confirm the long-cherished belief that the appearance of these heavenly bodies was prognostic of evil. For mankind are in the habit of concluding that phenomena which are simultaneous must have some internal connexion, and many examples were called to mind in which great pestilences affecting the whole world had been either preceded or accompanied by comets.[1] Immediately afterwards a great murrain among cattle took place, which may have proceeded from some injurious quality in their food. A notion immediately arose that the pastures were poisoned, and of this there was so firm a conviction, that the most violent resentment, as of old, in the time of the black death, prevailed against the supposed poisoners, and in the neighbourhood of Meissen some "böse Buben" (wicked knaves) who had fallen under suspicion, were actually executed.[2]

A very considerable blight of caterpillars, which, in the north of Germany, stripped the gardens and woods far and wide of their foliage, deserves to be here mentioned as a phenomenon appertaining to the lower grades of the animal kingdom.[3] Natural history has shown that occurrences of this kind are by no means occasioned by new and wonderful influences, but rather by unusual combinations of circumstances, appearing to occur together almost accidentally, at a given time; especially by the simultaneous union of warmth and humidity in the atmosphere, whereby sometimes one and sometimes another of the lower grades of animal existences becomes extraordinarily developed. It is on this account that unusual phenomena in the insect world, whether it be the appearance or the disappearance of particular kinds, take place much more frequently when the order of succession in the seasons and the condition of the atmosphere are in a greater degree than usual and more permanently disturbed; and thus those phenomena have, with much reason, ever been considered as forerunners of pestilences, whenever the human frame has become, through atmospherical causes, generally susceptible of disease. Swarms of locusts have appeared before and during most great pestilences, and indeed the exuberant production of this insect appears, at least in Europe, to require the most unusual combination of causes.

[1] Compare *Webster*, who has collected together whatever could be found on this subject. Vol. II. p. 28.

[2] *Spangenberg*, M. Chr. fol. 402. a.

[3] The same. *Franck*. fol. 219. a.

Sect. 7.—Blood Spots.

Of rarer occurrence, but quite as important in reference to the general tendencies of life, are *the luxuriant growths of the minutest cryptogamic plants in the water, and on damp things of all kinds*, which, from their spots of various forms and colours, produced the utmost horror both before and during great pestilences, and excited superstitious fears, as appearing to be something miraculous. These spots (signacula), and especially the *blood-spots*, were seen at a very early period, as for instance during the great general plague in the sixth century,[1] and again, during the plague of the years 786[2] and 959, when it is said to have been remarked, that those on whose clothes they frequently appeared, and seemingly imparted to them a peculiar odour, were more susceptible than other people of attack from leprosy, on which account this spotted appearance was inconsiderately called the clothes leprosy[3] (Lepra vestium); not to mention other examples, in which plagues affecting the human species did not take place. The same signs also, in the years from 1500 to 1503, threw the faithful into great consternation, because, as on former occasions, they fancied they recognised in them the form of the cross.[5] The phenomenon on this occasion spread throughout Germany and France, and from its great extent and long duration, may be reckoned among the most remarkable of the kind. The spots were of different colours, principally red, but also white, yellow, grey, and black, and arose, often in a very short time, on the roofs of houses, on clothes, on the veils and neck handkerchiefs of women, on various household utensils, on the meat in larders, &c. A historian, who speaks also of blood-rain,[6] recounts that they could not be got rid of in less

[1] Author's History of Medicine. Book II. p. 146.

[2] *Sigebert. Gembl.* fol. 58. a. *Spangenberg*, M. Chr. fol. 66. b.

[3] *Sigebert. Gembl.* fol. 82. a. *Hermann. Contract.* p. 186. *Witichind.* p. 34.

[4] Compare on this subject *Nees v. Esenbeck's* Supplement to *R. Brown's* Miscellaneous Botanical Writings, Book I. p. 571; and *Ehrenberg's* New Observations on Blood-like Appearances in Egypt, Arabia, and Siberia, together with a review and critique on what was earlier known, in *Poggendorff's* Annalen, 1830; the two best works on this subject; wherein is also contained a criticism on *Chladni's* Hypermeteorological Views.

[5] *Crusius* is the most circumstantial on this point, for he gives the names of many persons on whose clothes crosses were visible. On a maiden's shawl the instruments of Christ's martyrdom were supposed to have been seen marked. In the vicinity of Biberach, a miller's lad made rude sport of the painting of crosses, but he was seized and burned. Book II. p. 156.

[6] *Mezeray*, T. II. p. 819.

than ten or twelve days, and that they frequently occurred in closed chests, on linen and on articles of clothing.[1] Much information is not to be expected from the researches of the naturalists of those times, but there is no doubt that what is described was some one or more kinds of mould,[2] inasmuch as the whole phenomenon evidently corresponds with modern observations.[3] Scientific physicians of the sixteenth century, among whom the naturalist George Agricola, who was born in 1494, and died in 1555, ought especially to be mentioned, recognised, even then, these spots as lichens, and without seeking to account for them by supernatural agencies, or lending credence to popular superstition, they gave them their just interpretation as indications of extensive disease.[4] Should the too bold notion of Nees v. Esenbeck, that fungi of the most minute forms have their origin in the higher regions of the firmament, and descending to the surface of the earth, produce spots and stains, be confirmed, which is not yet the case, these "signacula" would have a much more important connexion with epidemics than can be otherwise conceded to them; for though it be highly probable that they have their origin only in the dissemination of germs in the lower strata of the atmosphere, it must yet be granted, that if they appear over a considerable space, and during a long time, as at the commencement of the sixteenth century, the causes favouring their generation and spread must be ranked among those of an extraordinary kind, and on this very account may exercise an influence over human organism, as was then evident.

For so early as the fruitful year 1503, the plague, which had already appeared partially, made great advances, and France in particular was visited by so fatal a pestilence, that the inhabitants of towns and villages, in order to escape the infection, fled in bodies to the woods, and even the house-dogs became wild, which never happens, unless a country be extensively depopulated.[5] They were obliged to establish great hunts, in order to free the

[1] *Angelus*, p. 261.

[2] Perhaps Sporotrichum vesicarum, or a kind of Mycoderma.

[3] *Vincenzo Sette* describes a kind of red mould, which in the year 1819 coloured vegetable and animal substances in the province of Padua, and excited superstitious apprehensions among the people. See his work on this subject.

[4] "Autumnali vero tempore, cum jam vestes, lintea, culcitræ, panes, omnis generis obsonia, sub dio, vel in conclavibus patentibus locata talem situ *mucorem* contraxerunt, qualis oritur in penore, in opacis domus cellis collocato, aut etiam in ipsis cellis diu non repurgatis, pestis præsentes ad nocendum vires habet." L. I. p. 45. *Agricola's* Treatise on the Plague is among the cleverest which the sixteenth century produced.

[5] For example, at the time of the Justinian Plague, and of the Black Death.

country from these new beasts of prey, and from wolves which appeared in great multitudes.[1] The dry and continued heat of the following year, 1504, having given rise to still more extensive sickness, and caused a failure in the crops, the bubo plague raged in Germany with such violence, that in some places a third part, and in others as many as half the inhabitants perished. Various kinds of fevers accompanied this overwhelming disease, among which there was one distinguished by head-ache and phrensy similar to that which appeared in France, in 1482.[2] Various putrid fevers and putrid inflammations of the lungs with bloody expectoration, are also no less plainly discernible from the accounts.[3] This diversified and general sickness throughout the whole of Germany, terminated in the cold winter of 1504-5 and the following summer, during which there was a continued murrain among cattle. It is certain, that at that time the petechial fever in Italy had not yet passed the Alps.

From all these facts it is a probable conjecture, that the sweating sickness which visited England in the year 1506, *although accompanied in that country itself by no prominent circumstances, was not without connexion with the morbid commotion of human and animal life in the south and middle of Europe, and may perhaps be regarded as having been the last feeble effort of mysterious agencies in the domain of organized being.*

[1] *Mezeray*, T. II. p. 828.

[2] See above, p. 174.

[3] The former mortality was so far from having ceased, yea, rather in the great heat (of summer) was still more vehement, that in some places a third part, and in some even the half of the people were snatched away by death, and that not by one only, *but by various and hitherto unheard of diseases.* Men caught the burning fever so rapidly and violently, that they thought they must be totally consumed. Some were seized with such *severe and insupportable head-ache* that they were deprived of their senses, some with such *a violent cough* that they *expectorated blood* incessantly—some with such a very rapid flux, that it broke their hearts: the bodies of some putrefied, and were so offensive that no one could remain near them. And by reason of such extraordinary diseases, it was a most sorrowful and troublous year, and there followed a hard winter, in the which the cold lasted for three months. *Spangenberg*, M. Chr. fol. 402. b. Compare *Angelus*, p. 263, who, following some contemporaries, mentions a comet (doubted by *Pingré*, I. 479) as having appeared in the year 1504.

CHAPTER III.

THE THIRD VISITATION OF THE DISEASE.—1517.

" This learned Lord, this Lord of wit and art,
This metaphysick Lord, holds forth a Glasse,
Through which we may behold in every part
This boisterous prince."—HOWELL.[1]

SECT. 1.—POVERTY.

THE ordinances of Henry the VIIth, which, although adapted to the times, bore hard upon the people, soon produced their fruits. The great diminished the number of their servants, and as, moreover, many of the peasantry were thrown out of employment in consequence of a conversion of large tracts of arable land into pasture,[2] the population of towns increased even to an overflow, and the consequent activity of trade gradually rendered the towns flourishing. But this change took place too rapidly. Wealth and luxury engendered, it is true, numerous wants which were a source of gain, so that the English were at this time considered luxurious and effeminate,[3] but there was a general scarcity of workmen and artists, and hence it happened, that from Genoa, Lombardy, France, Germany, and Holland, innumerable foreigners immigrated and took possession of the most lucrative branches of employment. This was a peculiar hardship on the natives, who, from their imperfect knowledge of the arts, could not compete with the more skilful foreigners, and were besides treated by them with insolence and contempt. The distresses of the poor thus increased yearly, and their indignation at length broke out. A great insurrection of the English artizans arose throughout London, and might have proved destructive to the foreigners, had affairs been in a less orderly state. The popular commotion was however suppressed without any considerable sacrifice, and Henry the VIIIth on a solemn day, appointed at Westminster, for passing judgment upon the prisoners, bestowed a pardon on them; for he saw into the causes of their discontent, and very soon after caused restrictive alien laws to be enacted.[4]

[1] From a Poem on Henry VIII. in *Herbert of Cherbury*.

[2] They found grazing more profitable, and converted large tracts of arable land into pasture. *Hume*, T. IV. p. 277.

[3] *Lemnius*, fol. III. b.

[4] *Grafton*, p. 294. This insurrection is called by the Chroniclers, " Insurrection of Evill May-day."—*Hume*, T. IV. p. 274.

Sect. 2.—Sweating Sickness.

All this took place in April and May of the ever memorable year 1517, and London was again indulging in hopes of better days, when the Sweating Sickness once more broke out quite unexpectedly in July, and in spite of all former experience, and the most sedulous attention, inexorably demanded its victims. On this occasion it was so violent and so rapid in its course, that it carried off those who were attacked in two or three hours, so that the first shivering fit was regarded as the announcement of certain death. It was not ushered in by any precursory symptoms. Many who were in good health at noon were numbered among the dead by the evening, and thus as great a dread was created at this new peril as ever was felt during the prevalence of the most suddenly destructive epidemic: for the thought of being snatched away from the full enjoyment of existence without any preparation, without any hope of recovery, is appalling even to the bravest, and excites secret trepidation and anguish. Among the lower classes the deaths were innumerable.[1] The city was moreover crowded with poor; but even the ranks of the higher classes were thinned, and no precaution averted death from their palaces. Ammonius of Lucca, a scholar of some celebrity, and in this capacity private secretary to the king, was cut off in the flower of his age, after having boasted to Sir Thomas More, only a few hours before his death, that by moderation and good management he had secured both himself and his family from the disease.[2] Also of those immediately about the king, Lords Grey and Clinton were carried off, besides many knights, officers, and courtiers. Mourning supplanted the hilarity and brilliancy of the festivals, and the king, while in miserable solitude, into which he had retired with a few followers, received message after message from

[1] "Of the common sort they were numberless, that perished by it." *Godwyn*, p. 23.

[2] Is valde sibi videbatur adversus contagionem victus moderatione munitus: qua factum putavit, ut quum in nullum pene incideret, cujus non tota familia laboraverat, neminem adhuc e suis id malum attigerit, *id quod et mihi et multis præterea jactavit, non admodum multis horis antequam extinctus est.*"—*Erasm.* Epist. L. VII. ep. 4. col. 386. The date of the year of this letter from Sir *Thomas More* to *Erasmus*, 1520, is clearly erroneous, as is that of many other letters in this collection, for at that time the Sweating Sickness did not prevail in London; it is also sufficiently well known from other researches (Biographie Universelle — General Biographical Dictionary), that Ammonius died in 1517. The date of the month, however, 19th August, seems to be correct. *Sprengel* has, in consequence of this false date of the year, been misled to assume a specific epidemic Sweating Sickness as having taken place in the year 1520 (Book II. p. 686), which is wholly unconfirmed.

different towns and villages, announcing, that in some a third, in others even half the inhabitants were swept off by this pestilence. It had never before raged with so much fatality. The minds of men had never before been so frightfully appalled. The festival of Michaelmas (29th September), which in England was always kept with much religious pomp, was of necessity postponed; nor was the solemnity of Christmas observed, for there was a dread of collecting together large assemblies of people,[1] on account of the contagion; and just about this time, when the Sweating Sickness had abated, the plague, according to the account of some historians, began, which, although probably not very virulent, prevailed during the whole winter in most English towns, and continued to keep up the distress of the people. The king on this occasion also quitted his capital, and retreated, in company with a few attendants, before the contagion, frequently shifting his court from place to place. It was during this period of trouble (11th of February, 1518) that the Princess Mary, afterwards Queen, was born.[2]

Thus the Sweating Sickness lasted full six months, reached its greatest height[3] about six weeks after its appearance, and probably spread from London over the whole of England. In Oxford and Cambridge it raged with no less violence than in the capital. Most of the inhabitants of those places were, in the course of a few days, confined to their beds, and the sciences, which then flourished, for they were never more zealously cultivated in England than at that time, suffered severe losses by the death of many able and distinguished scholars.[4] Scotland, Ireland, and all other countries beyond sea, were on this occasion spared. The neighbouring town of Calais alone was reached[5] by the pestilence; and according to later observations, it may be considered as certain, that only the English who resided there, and not the French inhabitants, were affected, as it is also ascertained that the rest of France continued throughout free from the disease. Had this not been the case, contemporary writers would undoubtedly not have omitted to make mention of so important an occurrence.

[1] *Grafton*, p. 294, is very detailed. Compare *Holinshed*, p. 626. *Baker*, p. 286. *Hall*, p. 592.

[2] *Godwyn*, p. 23. *Stow*, p. 849.

[3] This, from the foregoing remark upon the death of *Ammonius*, may be concluded with the greatest probability.

[4] — "omnibus fere intra paucos dies decumbentibus, amissis plurimis, optimis atque honestissimis amicis." *Th. More* in *Erasmus's Epist.* L. VII. ep. 4. col. 386.

[5] Ibid. The only place where the disease is spoken of as having spread across the Channel.

Sect. 3.—Causes.

The influences which gave rise to this third eruption of the disorder among the English nation are obscure, and do not altogether correspond with those of the years 1485 and 1506. Thus it is especially remarkable that, on this occasion, there is no express mention of the humidity which had so decided a share in the origin of the two former visitations of the Sweating Sickness, and the year 1517 was in most respects one of an ordinary kind. The English Chronicles state nothing remarkable on the subject, and from those of Germany we only learn that the winter of 1516 was very mild, and that a fruitful summer with an abundant vintage[1] and a cold winter followed. The summer of 1517 was unfruitful, although not on account of wet weather, so that in some parts, especially in Swabia, provision was made against a scarcity.[2] A great comet appeared in 1516,[3] and in 1517 an earthquake was felt at Tübingen, Nördlingen, and Calw, during a violent storm, whereupon the "Haupt Krankheit"[4] (encephalitis), accompanied by fever, became more prevalent, although not remarkably fatal.[5] This phenomenon (the earthquake) was by no means unimportant[6] in its effects, and there is reason to suppose that it was followed by subterraneous commotions of still greater extent, for earthquakes occurred also in Spain.[7] As the date of this event is specified as the 16th of June, and as earthquakes occurring in unusual localities, that is to say, in districts not volcanic, are frequently cited as prognostics of great diseases, although in volcanic districts they evidently betoken nothing of the kind, we may hence with some reason assume a telluric influence, which perhaps reached the locality of the pestilence that broke out at the beginning of July, if

[1] *Spangenberg.* M. Chr. fol. 408. a. [2] *Crusius,* T. II. p. 187.

[3] *Wintzenberger,* fol. 21. a. *Angelus,* p. 282. *Spangenberg,* loc. cit. *Pingré* T. I. p. 483.

[4] Such was the name given in Germany to the already oft-mentioned pernicious fever with inflammation of the brain. We recognise it for the first time, as an epidemic, in France, in the year 1482. (See above, p. 174.) It frequently made its appearance throughout the whole of the sixteenth century.

[5] *Crusius,* T. II. p. 187.

[6] On the 16th of June, 1517, there was a great earthquake, and a tremendous storm of wind at Nördlingen, so that the parish church at St. Emeran was completely forced out of the ground and thrown down, and it was reckoned that there were 2000 houses and stables in that place which, for a space of two miles long, were overthrown and rent, and there were few houses there which were not, like the church, damaged and shaken to pieces. *Wintzenberger,* fol. 21. b.

[7] In Xativa. *Villalba,* T. I. p. 83.

not earlier. Besides, we cannot find any greater phenomenon, which, according to human conception, could have had a more immediate connexion with the English Sweating Sickness; and in this instance, too, inquiry the most circumspect does not penetrate through the thick veil which envelopes the inscrutable causes of epidemics.

Sect. 4.—Habits of the English.

That, next to the peculiar constitution which England imparts to her inhabitants, the predisposing causes of the Sweating Sickness lay in the habits of the English of those times, no one can possibly doubt. The limitation of the pestilence to England plainly indicates this. Not a single ship conveyed it to the French, or to the Dutch, who breathed a much moister atmosphere; and yet the intercourse between the English sea-ports and these immediately neighbouring nations was very frequent. Of intemperance, which most generally lays the foundation for disorders, both high and low were at this time accused. This vice of the English was proverbial in foreign countries.[1] Flesh meats highly seasoned with spices were indulged in to excess; noisy nocturnal carousings were become customary, and it was also the practice to drink strong wine[2] immediately after rising in the morning. Cyder, which in some parts, as for instance in Devonshire, is the common beverage,[3] was, even in those times, considered by medical men as injurious, for it was observed that its use caused debility with paleness, and sapped the vigour of youth in both sexes.[4] Other similar facts respecting the mode of living at that time might perhaps be adduced, from which it would appear that, owing to the total want of refinement in diet, much that was improper was employed in English cookery, and that on this account the constitution was much injured. Horticulture, which the French had already brought to a state of great improvement,[5] was still quite in its infancy in England. It is even said that Queen Catherine had pot-herbs brought from Holland for the preparation of salads, as they were not procurable in Eng-

[1] "*Il est saoul comme un Angloys.*"— *Rondelet*, de dign. morb. fol. 35. b.

[2] *Elyot*, in his "Castell of Health," quoted by *Aikin*, p. 64. *Rondelet*, loc. cit.

[3] In 1724, which was a great fruit year, there arose in this very country, from the immoderate use of cyder, an epidemic cholic; the Colica Damnoniorum. Vide *Huxham*, Opera. (Lips. 1764.) Tom. III. p. 54.

[4] *Elyot*, in *Aikin*, p. 63.

[5] *Le Grand d'Aussy*, T. I. p. 143.

land.[1] Allowing that this account may not be strictly true, since it admits of other explanations, still it proves in itself what we would here enforce, and leaves us to draw conclusions from it beyond the mere fact of there being a scarcity of culinary vegetables. Much more important, however, as respects our subject, was the custom of wearing immoderately warm clothing, of which we have accounts worthy of credence. From youth upwards the head was covered with thick caps, in order to secure it from every chance of cold, and from the least draught of air; and as, by this injurious practice, the brain was subjected to a continual determination of blood, and a tenderness of the skin was induced, there was no disorder more frequent among the English in this century than catarrh,[2] which was constantly reproduced by relaxing perspirations and heating medicines. If this malady be complicated with a scorbutic habit, or if it befall persons of debauched habits, whose vessels contain nourishment not properly concocted, the preservative vital power seeks a vent through the relaxed skin, and that which in itself is a needful and alleviating excitement of this tissue becomes a disease; the wholesome excretion degenerates into a colliquative drain, which forcibly carries off with it unusual animal matters that ought not to pass away through such an outlet, and the body yields to an attack to which it has been thus long predisposed. When we consider this debilitated state of the skin as the general complaint in England, taking into account the prejudicial influence of hot baths,[3] which were much in use, and the diaphoretic medicines employed in most disorders; when we bear in mind the rare use of soap at that time, and the high price of linen, as also the extreme indigence of the lower classes, which almost always breeds pestilences, the utterly miserable condition and truly Scythian filth of the English habitations,[4] and finally, the crowded state of London in the year

[1] *Hume*, T. IV. p. 273. *Aikin*, p. 59.

[2] "Now-a-days, if a boy of seven years of age, or a young man of twenty years, have not two caps on his head, he and his friends will think that he may not continue in health; and yet, if the inner cap be not of velvet or satin, a serving-man feareth to lose his credence." *Elyot*, in *Aikin*, p. 64.

[3] ——" ubi homines perpetuo in hypocaustis degunt, multoque carnium esu se ingurgitant, et alimentis piperatis continuo utuntur. Quare factum est, ut continua hypocaustorum æstuatione meatuum cutis relaxatio consequeretur, quæ sudoris promptissima et potentissima causa esse solet, *cuius materia in humorum exsuperantia consistebat, quam frequens alimentorum multum nutrientium et piperatorum usus colligerat.*" *Rondelet*, loc. cit.

[4] The floors of the houses generally are made of nothing but loam, and are strewed with rushes, which being constantly put on fresh, without a removal of the old, remain

1517, we shall, as far as human research can penetrate, find the origin of the Sweating Sickness in this very year explicable from causes which have long been known to be capable of producing such effects. Something remains in the background, of which hereafter.

Sect. 5.—Contagion.

The rapid spread of the Sweating Sickness all over England as far as the Scottish borders, and across to Calais, now demands a more especial consideration. Most fevers which are produced by general causes, as well transient (epidemic), as constant and peculiar to the country (endemic), or a union of both, which almost always takes place, and was here evidently the case, propagate themselves for a time spontaneously. The exhalations of the affected become the germs of a similar decomposition in those bodies which receive them, and produce in these a like attack upon the internal organs; and thus a merely morbid phenomenon of life shows that it possesses the fundamental property of all life, that of propagating itself in an appropriate soil. On this point there is no doubt,—the phenomena which prove it have been observed from time immemorial, in an endless variety of circumstances, but always with a uniform manifestation of the fundamental law. All nations too, and from the most ancient times, have invented ingenious designations for these occurrences, which, however, seldom represent the general notion, but commonly only the peculiar propagation of individual diseases. Certainly one of the best and the most ingenious is that which is conveyed by the German word "Ansteckung," "setting on fire," which compares the exciting a disease in the appropriate body, with the inflammation of combustible matter by the application of fire, or with the kindling of powder by a spark. But how various are these "Ansteckungen!", from the purely mental, on the one hand, which, through the mere sight of a disagreeable nervous malady—through an excitement of the senses that shakes the mind, penetrates into the nerves, those channels of its will and of its feelings, and produces the same disorder in the beholder, to those, on the other hand, which propagate diseases that principally

lying there, in some cases for twenty years, with fish-bones, broken victuals, and other filth underneath, and impregnated with the urine of dogs and men. *Erasm.* Epist. L. xxii. ep. 12. col. 1140. This description is in all probability overdrawn, and applicable only to the poorest huts. It is, however, certainly not fictitious, and is not refuted by *Kaye.*

operate only upon matter, and are distinguishable but little, if at all, from animal poisons. The reader must not here expect all the features of a doctrine which extends through the whole immeasurable domain of life. They are clearly derived from the confirmed and well-applied experience of *the past*, and have been delineated by men[1] who had not forgotten, like their modern successors, to take a comprehensive view of epidemic diseases. It may, however, be permitted me just to call to mind the difference between those infectious diseases which are *permanent* and for centuries together *unchangeable*, and those which are *temporary* and *transient*. The infecting matter of the former may aptly be called the perfect or unchangeable in contradistinction to the imperfect or mutable character of the latter. The former, when once formed, whether in diseased persons or inanimate substances (fomites), are always in existence, and are but called into activity by those causes of general disease (epidemic constitutions) which are favourable to their propagation; and it is to be remarked that under all circumstances, and at all times, they excite the same unchangeable diseases, and, varying only in particular ramifications or degenerations and mild forms, never lose their proper essence. Examples are furnished in the small-pox, the plague, the measles, and, if we may include diseases not febrile, the leprosy, the itch, and the venereal disease. The latter, on the other hand, are not always in existence, they are called forth from nonentity, by the causes of general diseases or epidemic constitutions, and they disappear again after the extinction of the epidemic diseases by which they were bred; they likewise vary in their development and their course in each particular epidemic. Examples are found in the yellow fever, in catarrh or influenza, in nervous and putrid fever, and, among many other disorders, in miliary fever, a disease which first grew to a national pestilence in the 17th century, and which, in the kind and manner of its infecting power, approaches nearest to the sweating fever. To this latter category the English Sweating Sickness likewise belongs; a disease altogether of a temporary character, which, after its cessation, left no infecting material behind, and consequently was incapable of propagating itself after the manner of those diseases which are completely contagious. The animal matters which were expelled along with the profuse perspiration, and spread so horrible a stench around the sick, contained amid

[1] *Fracastoro*, *Fernel*, *Valleriola*, *Houlier*, and most of the other learned physicians of the sixteenth century.

their alkaline salts (probably ammonia in various states of combination), and their superabundant acid, the ferment of the disease; and this penetrated into the lungs of the bystanders as they breathed, and provided they were but predisposed for its reception, as above stated, continually produced it. It may be considered as certain that mere manual contact was not sufficient to communicate the infection, and that this was propagated, either by the pestilential atmosphere which surrounded the beds of the sick, or by exhalations generated in unclean situations where there was no vent for their escape. On this account it was that the residence at common inns and public-houses was looked upon as dangerous.[1]

I would not, however, be understood to maintain that, during the three epidemics with which, up to the present stage of our inquiry, we have become acquainted, the spread of the sweating fever alone was occasioned by infection; for if the general epidemic causes were powerful enough to excite the disease, without any previously existing poison, why might they not produce the same effect still more independently throughout the course of the pestilence, since, as is the case in all epidemics, those causes in all probability continued to increase in intensity? That the plague grew worse on the occasion of any great assemblages of the people, was at that time known, and the notion of contagion thence very naturally arose. Yet, must it here be taken into account, that even without this notion, and merely from the assemblage itself of many people in whom the like malady was germinating, and already had shown tokens of its approach, that approach might easily be accelerated, and the disease increased among those merely slightly indisposed, by the reciprocal communication of morbid exhalations. For as the predisposition to any malady, which is an intermediate condition between that malady and the previous state of good health,[2] plainly displays the properties of the disease in those whom it *threatens* to attack, so these exhalations (or epidemic causes which give rise to Sweating Sickness in the first instance) certainly differ from those which occur in a sweating sickness which has already broken out, only in unessential respects, and might consequently stimulate the mere disposition to the disease more and more, even to the actual eruption of the disease itself. Yet a contagion was like-

[1] ——"*quod vulgaria diversoria parum tuta sunt a contagio sceleratæ pestis*, quæ nuper ab Anglis—in nostras regiones demigravit," speaking of the English Sweating Sickness in Germany (1529). *Erasm.* Epist. L. xxvii. ep. 16. col. 1519. c.

[2] *Brown's* "Opportunity."

wise in operation at the same time, which was destructive even to the temperate, and to those who were apparently in health, nay, even to foreigners, who were living in an English atmosphere and on English food, as the example of the Italian Ammonius plainly proves.[1]

In all epidemics which increase to such a degree as to become contagious, it is of importance to distinguish which of these causes are the more powerful, the predisposing or epidemic causes, which originate the proneness to the disease, or the proximate causes, among which, in the generality of cases, contagion is the most prominent. The predisposing were here evidently the more operative; contagion was not added till the disease was at its height, and although it contributed not a little to its spread, yet it always remained subordinate to the other sources of the disease, and all the matter of infection vanished without a trace, on the cessation of the disorder, so that the subsequent eruptions of it were always produced by the renewal of those general causes which are in operation upon and under the earth. It is, however, as little within the compass of human knowledge to discover the essential foundation of this renewal, as the proximate causes of the appearance of the mould spots at the commencement of the sixteenth century, or any other of those processes which are prepared and brought into activity by the hidden powers of nature.

Sect. 6.—Influenzas.

Several epidemics thus originating in causes beyond human comprehension appeared in the 16th century. Among the most remarkable was a violent and extensive catarrhal fever in 1510, of that kind which the Italians call Influenza, thus recognising an inscrutable influence which affects numberless persons at the same time. It prevailed principally in France, but probably also over the rest of Europe, of which, however, the accounts do not inform us, for in those times they took little pains to record the particulars of epidemics which were not of a character to affect life. According to recent experience we should be warranted even in supposing that this malady had its origin in the remotest parts of the East. During the whole of the winter, which was very cold, violent storms of wind prevailed, and the north and middle of Italy were shaken by frequent earthquakes; whereupon there followed so general a sickness in France, that

[1] *Erasm.* Epist. L. vii. ep. 4. col. 386.

we are assured by the historians that few of the inhabitants escaped it. The catarrhal symptoms, which on the appearance of disorders of this kind usually form their commencement, seem to have been quite thrown into the background by those of violent rheumatism and inflammation. The patient was first seized with giddiness and severe headache; then came on a shooting pain through the shoulders, and extending to the thighs. The loins too were affected with intolerably painful dartings, during which an inflammatory fever set in with delirium and violent excitement. In some the parotid glands became inflamed, and even the digestive organs participated in the deep-rooted malady; for those affected had, together with constant oppression at the stomach, a great loathing for all animal food, and a dislike even to wine. Among the poor as well as the rich many died, and some quite suddenly, of this strange disease, in the treatment of which the physicians shortened life not a little by their purgative treatment and phlebotomy, seeking an excuse for their ignorance in the influence of the constellations, and alleging that astral diseases were beyond the reach of human art.[1]

From this prejudicial effect of our chief antiphlogistic remedy, bleeding, as well as of evacuations from the bowels, we may conclude that the disease, though in its commencement rheumatic, yet had an essential tendency to produce relaxation and debility of the nerves, and in this respect, as well as in its extension to all classes, accorded with the modern influenzas, in which the same phenomena have manifested themselves, only much less vividly and plainly. The French, who, from the levity of their character, have always called serious things by jocose names, designate this disease "Coqueluche" (the monk's hood), because, owing to the extreme sensibility of the skin to cold and currents of air, this kind of hood was generally necessary, and was a protection against an attack of the malady, as well as against its increase. That in the accounts, which are, to be sure, very incomplete, there should be no express mention of any affection of the air-passages, is remarkable, since this could not in all likelihood have failed to exist; although it might perhaps have been only slightly manifested. Nearly a century before (1414), this affection appeared far more prominently on the occurrence of a no less general disorder of the same kind; so that all those who had the complaint, suffered from a considerable hoarseness, and all public

[1] *Mezeray*, T. II. p. 853. *Paré*, p. 823. *Holler*, Comm. II. in secund. sect. Coac. Hippocrat. p. 323.

business in Paris was interrupted on this account.[1] It was on that very occasion that the name Coqueluche was first employed, and this having, as is well known, been transferred to the whooping-cough, it is easier to suppose, with respect to the influenza of 1510, which was similarly named, an omission in the account, than the real absence of a symptom so very generally prevalent; for in these kinds of comparisons and denominations, the common sense of the people errs much less than the learned profundity of political historians.

We must not omit here to remark that three years before (1411), and thirteen years afterwards, two diseases, entirely similar and equally general, made their appearance in France, of which we nowhere find that any notice has been taken up to the present time. The first was called *Tac*, the second *Ladendo*, which designations have since entirely gone out of use. Both were accompanied by very severe cough, so that in the former, ruptures not unfrequently occurred, and pregnant women were in consequence prematurely confined, and by the latter, from its universality, the public worship was disturbed. In the ladendo, there seems to have been an affection of the kidney of an inflammatory character, and much more severe than in the coqueluche of 1510, a memorable example of epidemic influence, and without a parallel in modern times. This pain in the kidneys, which was as severe as a fit of the stone, was followed by fever with loss of appetite, and an incessant cough that terminated in disagreeable eruptions about the mouth and nose. The disorder ran a course of about fifteen days, and was generally prevalent throughout October, being unattended with danger, notwithstanding the severity of its symptoms. One might almost be tempted to regard the tac of 1411 as the coqueluche of 1414, which is only slightly alluded to by Mezeray, and whereof the author from whom we are now quoting has made no mention; for a false date might easily occur here. Yet this must remain undecided until we can obtain fuller information, for we have experienced, even in the most recent times, an example of influenzas (1831 and 1833) following each other in quick succession. Gastric symptoms and an inordinate degree of irritability accompanied the spasmodic cough, and the complaint terminated with evacu-

[1] "Un étrange rhûme qu'on nomma coqueluche, lequel tourmenta toute sorte de personnes, et leur rendit la voix si enrouée, que le barreau et les collèges en furent muets."—*Mezeray*. Compare *Diderot* et *d'Alembert*, Encyclopédie ou Dictionnaire raisonné des Sciences, etc. T. IV. p. 182.

ations of blood. However, the disease was unattended with danger, and lasted upon the whole only three weeks.[1]

Four other epidemics similar to that of 1510 appeared in the sixteenth century, two which were quite general in the years 1557 and 1580, and two less extensively prevalent in the years 1551 and 1564.[2] Of the two former we possess accurate descriptions; it will therefore aid us in forming a correct judgment respecting the influenza of 1510, if we here take a review of these also, since the most experienced contemporaries classed all these disorders together as of a similar kind. During the dry unfavourable summer of 1557, invalids were suddenly seized with hoarseness and oppression at the chest, accompanied with a pressure on the head, and followed by shivering and such a violent cough, that they thought they should be suffocated, especially during the night. This cough was dry at first, but about the seventh day, or even later, an abundant secretion took place either of thick mucus or of thin frothy fluid. Upon this the cough somewhat abated, and the breathing became freer. During the whole course of the disorder, however, patients complained of insufferable languor, loss of strength, want of appetite, and even nausea at the sight of food, restlessness and want of sleep. The malady ended in most cases in abundant perspiration, but occasionally in diarrhœa. Rich and

[1] *Pasquier*, Livr. IV. Ch. 28, p. 375, 376. The following is the passage. "En l'an 1411, y eut une autre sorte de maladie, dont *une infinité de personnes* furent touchez, par laquelle on perdoit le boire, le manger et le dormir, et toutefois et quantes que le malade mangeoit, il auoit une forte fievre; ce qu'il mangeoit luy sembloit amer ou puant, tousiours trembloit, et auec ce estoit si las et rompu de ses membres, que l'on ne l'osoit toucher en quelque part que ce fust: Aussi estoit ce mal accompagné *d'une forte toux*, qui tourmentoit son homme iour et nuit, laquelle maladie dura trois semaines entieres, *sans qu'une personne en mourust*. Bien est vray que par la vehemence de la toux plusieurs hommes se rompirent par les genitoires, et plusieurs femmes accoucherent avant le terme. Et quand venoit au guerir, ils iettoient grande effusion de sang par la bouche, le nez et le fondement, *sans qu'aucun médecin peust iuger dont procedoit ce mal, sinon d'une generale contagion de l'air, dont la cause leur estoit cachée.* Cette maladie fut appellée le *Tac:* et tel autrefois a souhaité par risée ou imprecation le mal du Tac à son compagnon, qui ne sçavoit pas que c'estoit.—L'an 1427, vers la S. Remy (1 Oct.) cheut un autre *air corrompu* qui engendra une très mauvaise maladie, que l'on appelloit *Ladendo* (dit un auteur de ce temps là) e n'y auoit homme ou femme, qui presque ne s'en sentist durant le temps qu'elle dura. *Elle commençoit aux reins, comme si on eust eu une forte gravelle*, en après venoient les frissons, et estoit en bien huict ou dix iours qu'on ne pouvoit bonnement boire, ne manger, ne dormir. Après ce venoit une toux si mauvaise, que quand on estoit au Sermon, on ne pouvoit entendre ce que le Sermonateur disoit par la grande noise des tousseurs. Item elle eust une très forte durée jusques après la Toussainets (1 Nov.) bien quinze iours ou plus. Et n'eussiez gueres veu homme ou femme qui n'eust la bouche ou le nez tout esseué de grosse rongne, et s'entre-mocquoit le peuple l'un de l'autre, disant: As tu point eu Ladendo?"

[2] *Reusner*, p. 75.

poor, people of every occupation and of all ages, were seized with this disease in whole crowds simultaneously, and it passed easily from a single case to a whole household. On this occasion death rarely occurred, except in children who had not power to endure the severity of the cough, and medicine was of little avail, either in alleviating the disorder or arresting its destructive course. The already established name of this disease was immediately called to mind again in France. It was not, however, confined to that kingdom, but prevailed as generally, with some considerable varieties of form, in Italy, Germany, Holland, and doubtless over a still wider range of country.[1] The same was the case with the influenza of 1580, which spread over the whole of Europe, and seems to have been less severe; thus bearing a closer resemblance[2] to that of 1831 and 1833, which is still in the recollection of most of our readers from their own experience. A more elaborate research into this very important subject would far surpass the limits of this treatise, for phenomena deeply affecting the whole system of human collective life are here to be considered, which can only become apparent when received as a connected whole, yet we must at least point out the relation which the influenzas bear to the greater epidemics. This is quite apparent; for as catarrhs are not unfrequently the forerunners, accompaniments, or sequelæ of important diseases in individual cases,[3] excitement of the mucous membrane being often merely an outward sign of more deeply-seated commotion, so also are influenzas usually only *the first manifestations, but sometimes also the last remains of extensive epidemics*. The most recent example is still fresh in our memories. The influenza of 1831 was immediately followed by

[1] *Valleriola*, Loc. med. Comm. Append. p. 45. *Schenck a Grafenberg*, Lib. VI. p. 552. Compare *Short*, T. I. p. 221.

[2] *Reusner*, p. 72. Some of the synonymes here adduced will show the medical views of the period respecting these diseases: Catarrhus febrilis. Febris catarrhosa. Ardores suffocantes. Febris suffocativa. Catarrhus epidemicus. Tussis popularis. *Cephalæa catarrhosa*. Cephalalgia contagiosa. *Gravedo anhelosa, Fernel*. Der böhmische Ziep (the Bohemian pip). Der schafhusten (the sheep-cough). Die schafkrankheit (the sheep disease). Die lungensucht (phthisis). Das Hühnerweh (the poultry cough, or chicken contracted to chin-cough), and many others. In the influenza of 1580, violent perspiration was occasionally observed, so that some physicians thought that the English sweating sickness was about to return, just as in the Gröninger intermittent (1826), and in the cholera of 1831, without any knowledge on the subject, they talked of the Black Death.—*Schneider*, L. IV. c. 6. p. 203.

[3] That the physicians of the sixteenth century were familiar with this observation, is proved by the following quotation from *Houlier*. "Nulla fere corporis humani ægritudo est, quæ non defluxione humoris alicuius e capite aut excitari aut incrementum accipere possit." Morb. int. L. I. fol. 68. b.

the Indian cholera, and scarcely had this, after its revival in Eastern and central Europe, vanished, when the influenza of 1833 appeared, as if to announce a general peace. After the influenza of 1510, a plague followed in the north of Europe, which in Denmark carried off the son of King John ;[1] 1551 was the year of the fifth epidemic sweating sickness. In 1557, the influenza in Holland was followed by a bubo plague, which lasted the following year, and carried off 5000 of the inhabitants at Delft.[2] In 1564, a very destructive plague raged in Spain, of which 10,000 people died at Barcelona, and finally, in 1580, the last year of influenza in that century, a plague of which 40,000 died in Paris, appeared over the greater part of Europe and in Egypt.[3]

Sect. 7.—Epidemics of 1517.

We now revert to the year 1517, and shall consider the epidemics which accompanied the English sweating sickness. First of all, the *Hauptkrankheit*, that brain fever which so often recurred in the central parts of Europe, appeared extensively throughout Germany. Many died of this dangerous disease, and we are assured by contemporaries that other intercurrent inflammatory fevers were also very fatal.[4] Such was the case in Germany, the heart of Europe. Another disease, however, much more important, and till that time wholly unknown to medical men, appeared in Holland, which broke out in January, 1517, and from its dangerous and quite inexplicable symptoms, spread fear and horror around. It was a malignant, and, according to the assurance of a very respectable medical eye-witness, an infectious inflammation of the throat, so rapid in its course that, unless assistance were procured within the first eight hours, the patient was past all hope of recovery before the close of the day. Sudden pains in the throat, and violent oppression of the chest, especially in the region of the heart, threatened suffocation, and at length actually produced it. During the paroxysms the muscles of the throat and chest were seized with violent spasm, and there were but short intervals of alleviation before a repetition of such seizures terminated in death. Unattended by any premonitory symptoms, the disease began with a severe catarrhal affection of the chest, which speedily advanced to inflammation of the air passages, and

[1] *Hvitfeldt*, Danmarks Riges Kronike. [2] *Forest*, Lib. VI. Obs. IX. p. 159.
[3] *Webster*, vol. I. p. 157. 165. *Villalba*, T. I. p. 102. 117., and *Schnurrer*.
[4] *Spangenberg*, M. Chr. fol. 408. b.

where death did not occur on the day of the attack, ran on to a dangerous inflammation of the lungs, which followed the usual course, but was accompanied by a very high fever. Occasionally a less perilous transition into intermittent fever was observed, but in no case did a sudden recovery take place; for even when the fever subsided, the patient continued to suffer, for at least a month, from pain in the stomach and great debility, which symptoms admit of easy explanation to a medical man of the present day, from the fissures and small ulcers of the tongue, which appeared when the fever was at its height, and obstinately resisted the usual treatment.

The remedies employed show the circumspection and ability of the Dutch physicians. They had recourse, as soon as possible, at the latest within six hours, to venesection, and followed this up immediately by purgatives, of which, however, some eminent men disapproved, and this to the great detriment of their patients, for without the combined effect of both these means, the sudden suffocation could not be averted. Moreover, the employment of detergent gargles, whereby the extension of the affection to the lungs was prevented, as also of demulcent pectoral remedies, was decidedly beneficial, and it is affirmed that all who were thus treated were easily restored.[1]

Extraordinary and peculiar as this disease, for which contemporaries found no name, was, its rapid onset and its sudden disappearance were still more so. Most of those affected were taken ill at the same time, and eleven days of suffering and misery had scarcely elapsed when not another case occurred; the numbers who had fallen victims were buried; and but for the journal of the worthy Tyengius,[2] no distinct record would have existed of this remarkable epidemic, which however, it is certain, spread further than merely over the misty territory of Holland, and apparently with still greater malignity; for in the same year we find it in Basle, where, within the space of eight months, it destroyed about 2000 people, and its symptoms would seem to have been still more strongly marked. Respecting the intermediate countries, which it is highly probable that the disease passed through from Holland before it reached Basle, we unfortunately have no information. The tongue and gullet were white as if covered with mould, the patient had an aversion to food and

[1] *Tyengius*, in *Forest:* Lib. VI. Obs. II. Schol. p. 152.

[2] *Forest* availed himself of the unprinted and probably lost works of this distinguished physician, of whom, but for him, we should have known nothing.

drink, and suffered from malignant fever, accompanied with continued headache and delirium. Here also, in addition to an internal method of cure which has not been particularly detailed, the cleansing of the mouth was perceived to be an essential part of the treatment: the viscous white coating was removed every two hours, and the tongue and fauces were afterwards smeared with honey of roses,[1] whereby patients were restored more easily than when this precaution was omitted.[2]

It appears, according to modern experience, to admit of no doubt that this disease consisted of an inflammation of the mucous membrane which, accompanied by a secretion of lymph, spread from the œsophagus to the stomach, and likewise through the air passages to the lungs, being thus identical with pharyngeal croup, which was represented a few years ago as a new disease, and has in consequence been designated by a special name.[3] Its subsequent appearance in the memorable year 1557, respecting which we have a still more complete account, gives additional weight to this supposition. In that year it broke out in October, and was observed by Forest, who was himself the subject of it, at Alkmaar, where it attacked whole families, and in the course of a few weeks destroyed more than 200 people. It was not, however, so excessively rapid in its course as in 1517, but began with a slight fever like a common catarrh, and showed its great malignity only by degrees. Sudden fits of suffocation then came on, and the pain of the chest was so dreadfully distressing that the sufferers imagined they must die in the paroxysm. The complaint was increased still more by a tight convulsive cough, and until this was relieved by a secretion of mucus, proved dangerous, especially to pregnant women, sixteen of whom died within the space of eight days, whilst those who survived were all prematurely brought to bed. The fever which accompanied the inflammation was very various in its course. It was rarely observed to continue without intermission, but where this was the case, was

[1] The moderns, who prefer powerful remedies, employ for this purpose, without any better effect, the lunar caustic.

[2] *Wurstisen*, p. 707. In this seventeenth year there arose an unknown epidemic. The patients' tongues and gullets were white, as if coated with mould; they could neither eat nor drink, but suffered from headache together with a pestilential fever which rendered them delirious. By this disease 2000 persons perished in Basle within the space of eight months. Besides other means, it was found very efficacious to cleanse the mouth and gullet every two hours, even to the extent of making the surface bleed, and then to soften them with honey of roses.

[3] *Bretonneau's* Diphtheritis. Compare *Naumann's* treatise on the subject in the author's Wissenschaftlichen Annalen der ges. Heilkunde, Vol. XXV. II. 3. p. 271.

attended with the greatest peril. Yet death did not take place on this visitation until the ninth or fourteenth day, whereas in the year 1517 as many hours would have sufficed to produce a fatal termination. After this period the danger diminished, and those patients were most secure from suffocation, provided they had good medical attendance, whose complaint had been accompanied throughout its course by fever of only an intermittent character. So marked was the influence of the Dutch soil, that until this intermittent passed into continued fever of different gradations, it appeared of the purest and most unmixed type. In these cases the inflammation was less completely formed, so that even bleeding, a remedy otherwise indispensable, was sometimes unnecessary. Those affected all suffered most at night and in the morning, the latter generally bringing with it the inflammation of the larynx and trachea, which, however, they had not at that time experience enough to recognise as such, perceiving as they did only a slight redness in the fauces. The painful affection of the stomach was also in this epidemic very distinctly marked, so that a sense of pressure at the præcordia, accompanied by continual acid eructations, continued to exist even after a succession of six or seven fits of fever; and convalescents were troubled for a long time with dyspepsia, debility, and hypochondriasis. The inflammation of the mucous membrane, no doubt, affected the nervous plexuses of the abdomen, as is usually the case, and totally changed the secretion. This was proved by the treatment, for, by administering the necessary purgative remedies, a vast quantity of offensive mucus, mixed with bile, was evacuated.

Our excellent eye-witness assures us that the people sickened as suddenly as if they had inhaled a poisonous blast, so that more than a thousand people in Alkmaar betook themselves to their beds in a single day, a thick stinking mist having previously for several days spread over the land. This pestilence did not terminate so speedily as that of the year 1517; on the contrary, it delayed until the winter, and seems to have formed the conclusion of a whole series of morbid phenomena, particularly of the already-mentioned influenza throughout Europe, and of the bubo plague in Holland, which had occurred in the middle of the summer,—phenomena that were accompanied by the usual attendants of epidemics, namely, great scarcity, and unusual occurrences in the atmosphere, such, for instance, as electric illuminations of prominent objects, and so forth.[1]

[1] *Forest.* Lib. VI. obs. ix. p. 159.

The close connexion between this inflammation of the air-passages and gullet and the epidemic catarrh is quite apparent; for these are but gradations and gradual transitions in the affection of the mucous membrane, as also in the power of atmospherical causes, which especially influence the organs of respiration. We believe, therefore, that we are fully justified in classing the epidemic described to have taken place in Holland and Germany in 1517, with the influenzas; and in declaring the morbid commotion in human collective life which thus manifested itself, to have been a forerunner of the English pestilence, which was simultaneously prepared by the altered condition of the atmosphere, and broke out a few months later.

We ought not to omit here to mention that, in this same year, 1517, the small-pox, and with it, as field-poppies among corn, the measles, was conveyed by Europeans to Hispaniola, and committed dreadful ravages at that time, as afterwards, among the unfortunate inhabitants. Whether the eruption of these infectious diseases in the New World was favoured by an epidemic influence or not, can no longer be ascertained; yet the affirmative seems probable from the fact, that the small-pox did not commit its greatest ravages in Hispaniola[1] until the following year, and, according to recent experience, those epidemic influences which extend from Europe westward, always require some time to reach the eastern coasts of America.

But even without this phenomenon in the New World, which is now for the first time placed within the pale of observations on epidemics, we have facts at hand sufficiently numerous and worthy of credit to prove—*that the English Sweating Sickness of* 1517 *made its appearance, not alone, but surrounded by a whole group of epidemics, and that these were called forth by general morbific influences of an unknown nature.*

[1] *Petr. Martyr.* Dec. IV. cap. 10. p. 321. Compare *Moore*, p. 106.

CHAPTER IV.

THE FOURTH VISITATION OF THE DISEASE.—1528, 1529.

"Und wenn die Welt voll Teufel wär',
Und wollten uns verschlingen;
So fürchten wir uns nicht so sehr,
Es soll uns doch gelingen!"—LUTHER.

SECT. 1.—DESTRUCTION OF THE FRENCH ARMY BEFORE NAPLES, 1528.

THE events to which we are now about to allude, demonstrate, by their surprising course, that the fate of nations is at times far more dependent on the laws of physical life than on the will of potentates or the collective efforts of human action, and that these prove utterly impotent when opposed to the unfettered powers of nature. These powers, inscrutable in their dominion, destructive in their effects, stay the course of events, baffle the grandest plans, paralyse the boldest flights of the mind, and when victory seemed within their grasp, have often annihilated embattled hosts with the flaming sword of the angel of death.

To obliterate the disgrace of Pavia,[1] Francis I., in league with England, Switzerland, Rome, Genoa, and Venice against the too powerful Emperor of Germany, sent a fine army into Italy. The emperor's troops gave way wherever the French plumes appeared, and victory seemed faithful only to the banners of France and to the military experience of a tried leader.[2] Everything promised a glorious issue; Naples alone, weakly defended by German lansquenets and Spaniards,[3] remained still to be vanquished. The siege was opened on the 1st of May, 1528, and the general confidently pledged his honour for the conquest of this strong city, which had once been so destructive to the French.[4] It was easy with an army of 30,000 veteran warriors[5] to overpower the imperialists; and a small body of English[6] seemed to have come merely to partake in the festivals after the expected victory. The city too suffered from a scarcity, for it was blockaded by Doria, with his Genoese galleys; and water, fit to drink, failed after Lautrec had turned off the aqueducts of Poggio reale; so that the

[1] 24th of Feb. 1525.

[2] *Lautrec.*

[3] At first under *Hugo de Moncada;* afterwards under the Prince of *Orange.*

[4] 1495, the year of the epidemic Lues.

[5] Among them some regiments of Swiss.

[6] Two hundred knights under Sir *Robert Jerningham*, and afterwards under *Carew:* both died of the Camp Fever. *Herbert* of *Cherbury*, p. 212. seq.

plague, which had never entirely ceased among the Germans since the sacking of Rome,[1] began to spread.

But amidst this confidence in the success of the French arms, the means for ensuring it were gradually neglected. The valour of the intrepid and prudent commander was doubtless equal to the minor vicissitudes of war, but whilst the length of the delay paralysed the activity, nature herself suddenly proved fatal to this hitherto victorious army; pestilences began to rage among the troops, and human courage could no longer withstand the "far-shooting arrows of the god of day." The consequence was, that within the space of seven weeks, out of the whole host which up to that period had been eager for combat, a mere handful remained, consisting of a few thousands of cadaverous figures, who were almost incapable of bearing arms or of following the commands of their sick leaders. On the 29th of August the siege was raised, fifteen days after the heroic Lautrec, bowed down by chagrin and disease, had resigned his breath; the wreck of the army retreated amid thunder and heavy rain,[2] and were soon captured by the imperialists, so that but few of them ever saw their native land again.

This siege brought still greater misery upon France than even the fatal battle of Pavia, for about 5000 of the French nobility, some from the most distinguished families, had perished under the walls of Naples; its remoter consequences too were humiliating to the king and the people; since owing to its failure all those hitherto feasible schemes were blighted, which had for their object the establishment of French dominion beyond the Alps. It behoves us, therefore, to pay so much the more attention to those essential causes of this event, which fall within the province of medical research.

The mortality which occurred in the camp began probably as early as June, after the usual calamities which surround an army in an enemy's country. The French and Swiss were insatiable in their indulgence in fruit, which the gardens and fields furnished them in abundance, whilst there was a scarcity of bread and of other proper food.[3] Hence fevers soon broke out, which increased in malignity the longer they existed, accompanied no doubt by debilitating diarrhœas, which never fail to make their appearance under circumstances of this kind, and are in themselves among the most pernicious of camp diseases, since they not only destroy

[1] The 6th of May, 1527.

[2] *Jovius*, L. XXVI. Tom. II. p. 129.

[3] Ibid. p. 114.

in the individual case by the exhaustion which they occasion, but likewise, by infecting the air, prepare the way for the worst pestilences.

These diseases were, however, little noticed, and there was consequently no attempt made to diminish their causes. It became daily more and more apparent, that the cutting off of the sources near Poggio reale, which Lautrec had commanded, in order to compel the besieged to a more speedy surrender, was in the highest degree injurious to the besiegers themselves; for the water, having now no outlet, spread over the plain where the camp was situated, which it converted into a swamp, whence it rose, morning and evening, in the form of thick fogs. From this cause, and while a southerly wind continued to prevail, the sickness soon became general. Those soldiers, who were not already confined to bed in their tents, were seen with pallid visages, swelled legs, and bloated bellies, scarcely able to crawl; so that, weary of nightly watching, they were often plundered by the marauding Neapolitans. The great mortality did not commence until about the 15th of July, but so dreadful was its ravages, that about three weeks were sufficient to complete the almost entire destruction of the army.[1] Around and within the tents vacated by the death of their inmates, noxious weeds sprang up. Thousands perished without help, either in a state of stupor, or in the raving delirium of fever.[2] In the entrenchments, in the tents, and wherever death had overtaken his victims, there unburied corpses lay, and the dead that were interred, swollen with putridity, burst their shallow graves, and spread a poisonous stench far and wide over the camp. There was no longer any thought of order or military discipline, and many of the commanders and captains were either sick themselves, or had fled to the neighbouring towns, in order to avoid the contagion.[3]

The glory of the French arms was departed, and her proud banners cowered beneath an unhallowed spectre. Meanwhile, the pestilence broke out among the Venetian galleys under Pietro Lando. Doria had already gone over to the Emperor,[4] and thus

[1] According to *Mezeray*, the pestilence was at its height at the end of July. This is in accordance with *Jovius*, who fixes the termination of the great mortality, with rather too much precision perhaps, on the 7th of August.

[2] With reference to this seemingly inflammatory state of excitement, it is, perhaps, worthy of notice, that the commander-in-chief himself is stated to have been twice bled. *Jovius*, loc. cit. p. 125.

[3] *Jovius*, loc. cit. p. 116—118.

[4] *Mezeray*, T. II. p. 963.

was this expedition, begun under the most favourable auspices, frustrated on every side by the malignant influence of the season.

No medical contemporary has described the nature of this violent disease, and historians have on this point preserved only general outlines, which do not afford sufficient materials to ground an investigation. Certain it is, that in the year 1528, a very malignant *petechial fever* extended throughout Italy, and in the proper sense of the word prevailed so decidedly, that it even followed the Italians abroad in the same way as the Sweating Sickness did the English, as is proved by the case of the learned Venetian Naugerio, who, being despatched on an embassy to Francis the 1st, died at Blois on the Loire, of this very disease, with which the French had yet no acquaintance.[1] Contemporaries assure us, that this epidemic committed great ravages in the country, already distracted by wars and feuds, and it is therefore hardly to be doubted, that, occurring as it did in those same years, it was the disease of which we have been treating, the malignity of which was increased on extraordinary occasions. A pestilence which, just before the siege of Naples, destroyed one-third of the inhabitants of Cremona, was in all probability the petechial fever.[2] Yet, here and there, the old bubo plague made its appearance. This it was which in the year 1524 carried off 50,000 people in Milan,[3] and this appears likewise to have been the disease which, after the sacking of Rome, broke out among the German lansquenets, and in a short time annihilated two-thirds of these troops. Contemporaries saw therein God's just punishment of their desecration of the Holy See, for in the succeeding years, all the remaining participators in the storming of the eternal city also met with an end worthy of their crimes.[4] They did not take into account, however, the beastly intemperance and excesses of the soldiery, whose eagerness after plunder led them to encounter the plague poison in the most secret holes and corners; nor did they reflect, that the plague penetrated the Castle of St. Angelo itself, and destroyed some of the courtiers almost under the eyes of the Pope.[5] Of these lansquenets, many went to Naples in the following year under the Prince of Orange, and it may with good

[1] *Fracastor.* Morb. Contag. L. II. c. 6. p. 155, 156.

[2] It broke out in the beginning of February, and prevailed throughout the following month. *Campo*, p. 151.

[3] *Guicciardini*, p. 1054.

[4] *Mezeray*, T. II. p. 957.

[5] *Guicciardini*, p. 1276.

ground be supposed, that they took with them to that city fresh germs of plague; to which may be added, the by no means incredible story, that the besieged sent infected and sick soldiers to the French, in order to cause poisonous pestilences to break out among them.[1] This very circumstance tells in favour of bubo plague, for the decided certainty of its contagious nature was known, and seemed beyond all comparison greater than the more conditional communicability of the new disease.[2] Moreover, the same attempt at impestation had been already often made in earlier times.

It is, however, also to be considered, on the other side, that the French army was more exposed to the epidemic influence of the air, the water, and the general powers of nature, than any other assemblage of men, and, that this influence was probably more powerful in the year 1529, than at any other time during the sixteenth century. The formation of fog in the heat of summer is at all times an extraordinary phenomenon,[3] which decidedly indicates a disproportion in the mutual action of the components and powers of the lower strata of the atmosphere. This was not dependent merely on the local peculiarities of Naples, for during the summer of 1528, grey fogs were observed throughout Italy, which rendered the unwholesome quality of the air visible to the eye.[4] This was increased by the prevalence of southerly winds, which are always, in Italy, prejudicial to health, as also by the thousand privations of a camp, so that a disease which was already prevalent all over Italy—we allude to the *petechial fever*—might well break out on the damp soil of Poggio reale. In the history of national diseases, we find a moral proof of the predominance of epidemic influence, which plainly and intelligibly manifests itself under the greatest variety of circumstances. This is a belief, that the water and even the air is poisoned.[5] Nor is this proof wanting in the deplorable history of the French army before Naples, for it was generally believed, that some Spaniards of Moorish descent, to whom was attributed an especial degree of skill in the management of poison, and some Jews from Germany, who, for the sake of gain, had followed the lansquenets to truckle for their booty, had stolen out of the

[1] *Guicciardini*, p. 1315.

[2] See above, p. 186.

[3] It was also observed, as is well known, in the summer of 1831, before the breaking out of the cholera.

[4] *Gratiol*, p. 129, 130.

[5] See above, p. 189.

city under cover of the night, in order to poison the water in the neighbourhood of the camp.[1] It was also surmised, that an Italian apothecary had administered to the French knights poison in their medicine.[2] We will not anticipate on this occasion the researches of naturalists, whose experiments on air and water, during important epidemics, have not yet led to any results; it is, however, not improbable that pond and spring water, under such circumstances as are here described to have occurred, might become impregnated with a noxious quality, not inherent in it, which would very naturally give rise to the belief that a poison had been thrown into it. On the whole, this accusation may certainly be judged acccording to the same views which have been stated in our treatise on the Black Death.

From all these circumstances, the notion is highly probable that it was the petechial fever which raged in the French camp; and if we may attach any importance to the incidental accounts of historians, it may perhaps be to the purpose to state that Prudencio de Sandoval, who has written from authentic materials, calls the disease "las bubas."[3] This name, it is true, presupposes a rather strange confusion of petechial fever with lues; and, indeed, the diseases among the French troops from 1495 to 1528, have been oddly jumbled together by Sandoval. It shows, however, that there still existed a recollection of the prevalent eruptions which occurred in the pestilence of 1528; and, therefore, this whole account might perhaps be the more justly applied to petechial fever, as this same historian states, that the French called the disease after the village of Poggio reale "les Poches,"[4] by which name the well-known bubo plague would hardly have been designated. If, however, we choose to suppose that at one and the same time *different diseases* prevailed in the French army, this notion is not only supported by the express testimony of a contemporary,[5] but also by many observations ancient and modern,[6] that have been made in cases where the circumstances

[1] *Jovius*, loc. cit. p. 115. [2] *Mezeray*, p. 963.

[3] The Spanish name for the lues venerea, which it obtained in consequence of the prevailing eruptions. It corresponds with the French "la vérole," and with the German "französische Pocken." We must not, therefore, think that it means "buboes." *Sandoval*, Part II. pp. 12. 14. Compare *Astruc*, T. I. p. 4.

[4] In the Madrid edition of the same work, 1675. fol. L. XVII. p. 232. b.

[5] "Auster namque ventus per eos dies perflare et mortiferum crassioris nebulæ vaporem ex palustri ortum uligine, per castra dissipare et circumferre ita cœperat, ut *aliis ex causis conceptæ febres* in contagiosum morbum verterentur." *Jovius*, L. XXVI. p. 127.

[6] In Torgau, where, in 1813 and 1814, 30,000 Frenchmen found their graves, there

have been similar to those which then prevailed. It is ever to be regretted that there was no intelligent Machaon to be found in the camp before Naples; such a one would undoubtedly have left us some pithy observations on the combination and affinity of petechial fever and bubo plague.

Sect. 2.—Trousse-Galant in France.—1528, and the following years.

Deeply as the irreparable loss of such an army was felt by the French, yet were they destined to suffer still greater misfortunes at home. The dark power which threatened all Europe regarded neither distance nor limits. It seized on the French nation in their own country, whilst their military youth were destroyed before Naples. The cold spring and wet summer of 1528 destroyed the growing corn,[1] and a famine was thus produced throughout France, even more grievous, on account of its duration, than the period of scarcity in the time of Louis the XIth,[2] for the failure of the harvest continued for five years in succession, during which all order of the seasons seemed to have ceased. A damp summer heat prevailed in autumn and winter, a frost of a single day only occasionally intervening. The summer, on the other hand, was cloudy, damp, and ungenial. The length of the days alone distinguished one month from another. It appears plainly from detached accounts how much the usual course of vegetation was disturbed. Scarcely had the fruit trees shed their leaves in the autumn when they began to bud again, and to bear fruitless blossoms. No returns rewarded the toil of the husbandman, and the longed-for harvest again and again deceived the hopes of the people. Thus, even during the first of these calamitous years, the distress became general, and the increasing indigence was no longer to be checked by human aid. Bands of beggars wandered over the country in lamentable procession. The bonds of civil order became more and more relaxed, and people soon had to fear not only robbery and plunder on the part of these unfortunate beings, but the contagion of a pestilence, the offspring of their distress, which followed in their train.

This disease was a new production of the French soil, and when it spread generally throughout the country, was the more

prevailed two diseases, typhus and diarrhœa, altogether distinct from one another. See *Richter*.

[1] *Schwelin*, p. 143.

[2] See page 174.

sensibly felt, as it especially carried off young and robust men; on which account it was designated by the very significant name of Trousse-Galant.[1] It consisted of a highly inflammatory fever, which destroyed its victims in a very short time, even within the space of a few hours; or if they escaped with their lives, deprived them of their hair and nails, and from a long-continued disinclination for all animal food, left behind it, as sequelæ, a protracted debility and diseases which endangered the recovery of the sick, whose constitutions were already so much shaken. Hence it appears that this fever was combined with a great decomposition of the fluids, and a very morbid condition of the functions of the bowels, not to mention the effects produced by continued hunger, which contemporaries paint in the most dreadful colours.

The stock of provisions was already so far consumed in the first year that people made bread of acorns, and sought with avidity all kinds of harmless roots, merely to appease hunger. These miserable sufferers wandered about, houseless and more like corpses than living beings, and finally, failing even to excite commiseration, perished on dunghills or in out-houses. The larger towns shut their gates against them, and the various charitable institutions proved, of necessity, insufficient to afford relief in this frightful extremity! It was the lot of very few to obtain the tender care and attendance of the Sisters of Charity. In most of those affected their livid swollen countenances, and the dropsical swelling of their limbs, betrayed the sickly condition in which they dragged on their languishing existence. Every one fled from these pestiferous spectres, for they were saturated with the poison of this deadly disease, and the remark was no doubt made a thousand times over, that this poison might be conveyed to persons in health without affecting the carrier, since want and ill health occasionally afford a miserable protection against disease of this kind.[2]

The necessary data for furnishing a complete account of the Trousse-galant of 1528 do not exist, for physicians passed over this epidemic with the same coolness and indifference which unfortunately they may be justly accused of having shown with respect to other important phenomena. But it returned once again in 1545-46, appearing in Savoy and over a great part of France; and we possess from Paré,[3] and from Sander, a Flemish

[1] Trousser, in an obsolete sense, signifies to cause speedy death.

[2] *Mezeray*, T. II. p. 965, where the best notices of it are to be found.

[3] His account applies to the town of Puy in the Auvergne, where he seems himself to have seen the disease. Livr. XXII. c. 5. p. 823.

physician,[1] though still a defective, yet a more satisfactory, description of its symptoms on this occasion. Its course was, as before, very rapid, so that it destroyed the patient in two or three days; again it attacked the strong rather than the weak, as if in justification of its old name, and those who recovered remained for a long time distinguishable by the loss of their hair and their wretched appearance. Patients felt at the commencement an insufferable weight in the body, with extremely violent headache, which soon deprived them of all consciousness, and passed into a profound stupor, even the sphincter muscles losing their power. In other cases a continued state of sleeplessness was followed by feverish delirium, so violent that it was necessary to have recourse to means of restraint. Such opposite states are usual in all typhous fevers. *Sander* expressly mentions that in most of those affected, eruptions made their appearance. He does not, however, state their nature or describe the course and crisis of the disease, otherwise than that it terminated about the fourth or the eleventh day. Even the eruptions that did appear, which were probably petechiæ, and perhaps also (rother friesel) red miliary vesicles, came at an indefinite period; either at the commencement, when they afforded an unfavourable prognosis, or later, when they betokened a favourable crisis. Thread-worms, in great numbers, were evacuated alive under great torment, and generally increased the sufferings of the patient. The disease was scarcely less contagious than plague, and with respect to its treatment, bleeding, copious and even ad deliquium, was decidedly successful, which, coupled with the attacks on the head just described,[2] leads to the conclusion that there existed a fulness of blood and an inflammatory state of circulation, together, perhaps, with inflammation of the brain. We must not omit to observe that, during the pestilence of 1546, the bubo plague made its appearance here and there, especially in the Netherlands;[3] and in the following year, broke out and spread to a greater extent in France,[4] whence it seems to follow, with respect to the malady of which we are now treating, that its nature resembled the petechial fever, since that disease usually precedes the occurrence of pestilences.[5]

[1] *Forest*. L. VI. obs. 7. p. 156. *Sander* writes from numerous observations which he made in and about Cambray.

[2] *Sauvages*, T. I. p. 487, hence calls the Trousse-galant "Cephalitis verminosa," although neither inflammation of the brain nor worms existed in all cases, and takes his description from *Sander*, as again *Ozanam* has taken it from *Sauvages*, T. III. p. 27.

[3] *Forest*. p. 157. Schol.

[4] *Paré*, loc. cit.

[5] So small-pox and measles, it is well known, are the forerunners of plague.

The assertion of historians, that in 1528, and the following years, France lost a fourth part of her inhabitants by famine and pestilence, seems, according to our representation, not to be by any means exaggerated. The consequences, as regarded the future destinies of that country, were likewise very important. For Francis the 1st saw that no new sacrifices could be borne by his people, who were already so sorely afflicted; and therefore abandoned his schemes of greatness and foreign power, consenting, on the 5th of August, 1529, to the disadvantageous treaty of Cambray.

Sect. 3.—Sweating Sickness in England, 1528.

Whoever, following the above facts, will represent to himself the state of Europe in 1528, will readily believe that a poisonous atmosphere enveloped this quarter of the globe, and continually brought destruction and death over its nations. Ruin broke in upon them in a thousand forms, destroying their bodies and benighting their minds, and if to this we add the discord and the deadly party hatred which at that time prevailed in the world, it seems as if every circumstance that could affect mankind was implicated in this gigantic conflict, which threatened in its fatal result to annihilate all traces of the times that were past.

A heavier affliction than has yet been described was in store for England: for in the latter end of May, the Sweating Fever broke out there in the midst of the most populous part of the capital, spreading rapidly over the whole kingdom; and fourteen months later, brought a scene of horror upon all the nations of northern Europe, scarcely equalled during any other epidemic. It appeared at once with the same intensity as it had shown eleven years before, was ushered in by no previous indications, and between health and death there lay but a brief term of five or six hours. Public business was postponed: the courts were closed, and four weeks after the pestilence broke out, the festival of St. John[1] was stopped, to the great sorrow of the people, who certainly would not have dispensed with its celebration had they recovered from the consternation arising from the great mortality. The king's court was again deserted, and to the various passions and mental emotions which had been clashing there since the year 1517, as, for instance, those arising from the theological zeal which had been excited by Henry VIIIth's defence of the faith, was added once more the

[1] *Fabian*, p. 699.

old alarm and distress, which seemed to be justified by the death of some favoured courtiers; particularly of two chamberlains,[1] and of Sir Francis Poynes, who had just returned from an embassy to Spain. The king left London immediately, and endeavoured to avoid the epidemic by continually travelling, until at last he grew tired of so unsettled a life, and determined to await his destiny at Tytynhangar. Here, with his first wife and a few confidants, he resided quietly, apart from the world, surrounded by fires for the purification of the air, and guarded by the precautions of his physician, who had the satisfaction to find that the pestilence kept aloof from this lonely residence.[2]

How many lives were lost in this, which some historians have called *the great mortality*, can be estimated only by the facts which have been stated, and which betoken an uncommonly violent degree of agitation in men's minds. Accurate data are altogether wanting, yet it is quite evident that the whole English nation, from the monarch to the meanest peasant, was impressed with a feeling of alarm at the uncertainty of life, to which neither the rude state of society, nor a constant familiarity with the effects of laws written in blood,[3] had blunted their sensibility. Such a state does not exist without very numerous cases of mortality which bring the danger home to every individual, so that it is to be presumed that the churchyards were everywhere abundantly filled. Nor did this destructive epidemic come alone. Provisions were scarce and dear, and whilst hundreds of thousands lay stretched upon the bed of death, many perished with hunger,[4] and the same scenes would have been experienced as in France, had not the corn trade afforded some relief.[5]

As soon as the occurrences of this unfortunate year could be more closely surveyed, a conviction was at once felt, that *it was one and the same general cause of disease which called forth the poisonous pestilence in the French camp before Naples, the putrid fever among the youth in France, and the sweating sickness in England, and that the varying nature of these diseases depended only on the conditions of the soil and the qualities of the atmosphere in the*

[1] *Sir William Compton* and *William Carew*, besides many other distinguished persons who are not named.

[2] *Grafton*, p. 412, the principal passage. Compare *Holinshed*, p. 735. *Baker*, p. 293. *Hall*, p. 750. *Herbert of Cherbury*, p. 215.

[3] During *Henry* the Eighth's reign (1509 to 1547) 72,000 malefactors were, according to Harrison, executed for theft and robbery, making nearly 2000 for each year. *Hume*, T. IV. p. 275.

[4] *Stow*, p. 885.

[5] *Fabian*, loc. cit.

countries which were visited.[1] If, in opposition to these notions, a narrow view of human life in the aggregate should raise a doubt, this would be strikingly refuted by the wonderful coincidence, in point of time, of all these phenomena, occurring in such various parts of Europe; for while the French army, after an exposure of four weeks to the miseries and poisonous vapours of its camp before Naples, perceived the first forebodings of its destruction, the great famine with the Trousse-galant in its train was in full advance on the other side the Alps, and almost on the same day the Sweating Sickness broke out upon the Thames.

Sect. 4.—Natural Occurrences.—Prognostics.

The chronicles of all the nations of Europe are full of remarkable notices respecting the commotions of nature in these particular years, which were so utterly hostile to the animal and vegetable kingdoms. In England the period of distress was already approaching; towards the end of the year 1527. Throughout the whole winter (November and December, 1527, and January, 1528), heavy rains deluged the country, the rivers overflowed their banks, and the winter seed was thus rotted. The weather then remained dry until April; but scarcely was the summer seed sown, when the rain again set in, and continued day and night for full eight weeks, so that the last hope of a harvest was now destroyed,[2] and the soaked earth, in the thick mists that arose from its surface, hatched the well-known demon of the Sweating Disease. It was now of no avail that the torrents of rain ceased, for the softened soil gave the pestilence constant nourishment, and the damp warmth which, alternating with unseasonable cold, remained prevalent during the following years all over Europe, rendered men's bodies more and more susceptible to severe diseases.

The historians of that time were too much occupied with the intricate affairs of the court and of the church to devote any attention to nature, and on this account they have left us no satisfactory information of the state of the weather and the course of the seasons of those years in England, yet there is no reason to suppose that they were essentially different from those of the rest of Europe. This may be proved by the following collection of important natural occurrences, when taken in conjunction with the circumstances already stated respecting France and Italy.

[1] ——"it seeming to be but the same contagion of the aire, varied according to the clime." *Herbert of Cherbury*, loc. cit.

[2] *Stow*, loc. cit.

In Upper Italy such considerable floods occurred in all the river districts, in the year 1527, that the astrologers announced a new Deluge. There was a repetition of them to an equal extent, and with equal damage, in the following year, so that it may have been concluded, not without some ground, that there was an accumulation of snow on the highest mountain ranges of Europe. On the third of July, 1529, there followed a violent earthquake in Upper Italy, and immediately afterwards a blood-rain, as it was called, in Cremona.[1]

In October, 1530, the Tiber rose so much above its banks that in Rome and its neighbourhood about 12,000 people were drowned. A month later, in the Netherlands, the sea broke through the dykes, and Holland, Zealand, and Brabant suffered very considerably from the overflow of the waters, which again took place two years afterwards.[2]

In 1528 there appeared in the March of Brandenburg, during the prevalence of a south-east wind and a great drought[3] (the rains did not commence in Germany before 1529), *swarms of locusts*,[4] as if this prognostic too of great epidemics was not to be wanting. Of fiery meteors, which also frequently appeared in the following years, and in the aggregate plainly indicated an unusual condition of the atmosphere, much notice, after the manner of the times, is occasionally taken.[5] Particular attention was excited by a long fiery train which was seen on the 7th of January, 1529, at seven o'clock in the morning, throughout Mecklenburg and Pomerania.[6] Another fiery sign (chasma) was seen in the March on the 9th of January, at ten o'clock at night,[7] as likewise similar atmospherical phenomena in other localities.

Comets appeared in the course of this year in unusual number.[8] The first on the 11th of August, 1527, before daybreak; it was seen throughout Europe, and it has often been confounded by more recent writers with an atmospherical phenomenon resembling a comet which appeared on the 11th of October.[9] The second was seen in July and August, 1529, in Germany, France, and Italy.

[1] *Campo*, pp. 150, 151. [2] *Grafton*, p. 431. *Wagenaar*, Vol. II. p. 516.
[3] *Haftitz*, p. 130. [4] Annales Berolino-Marchici (no numbers to the pages).
[5] *Magnus Hundt*, fol. 4. b., and many others.
[6] *Bonn*, p. 143. A girl in Lübeck died of fright at this meteor.
[7] *Haftitz*, p. 131. *Angelus*, p. 317.
[8] It must not be thought that the author, because he has brought forward these notices, has any pre-formed opinions whatever respecting the import of these heavenly bodies. The historian cannot pass over contemporaneous occurrences, whatever may be the conclusion which the limited extent of our knowledge enables us to draw from them.
[9] *Pingré*, T. I. p. 485. *Spangenberg*, M. Chr. fol. 410. a.

Four other comets are also said to have made their appearance this year at the same time; but it is probable that these were only fiery meteors of an unknown kind.[1] The third was in 1531, and was visible in Europe from the 1st of August till the 3rd of September. This was the great comet of Halley, which returned in the year 1835.[2] The fourth was in 1532, visible from the 2nd of October to the 8th of November; it appeared again in 1661.[3] Lastly, the fifth, in 1533, seen from the middle of June till August.[4]

Contemporaries agree remarkably in their accounts of the insufferable state of the weather in the eventful year 1529. The winter was particularly mild, and the vegetation was far too early, so that all the world was rejoicing at the mildness and beauty of the spring. The people wore violets, at Erfurt, on St. Matthew's day (the 24th of February), little expecting that this friendly omen was to precede so severe a calamity.[5] Throughout the spring and summer wet weather continued to prevail. Constant torrents of rain overflowed the fields, the rivers passed their banks; all hopes of the cultivation were entirely frustrated,[6] and misery and famine spread in all directions. A heavy rain of four days' continuance, which took place in the south of Germany in the middle of June, and was called the St. Vitus's Torrent, is still remembered in modern times as an unheard-of event. Whole districts of country were completely laid under water, and many persons perished who had not time to save their lives.[7] A similar, very widely-extended, and perhaps universal, storm again occurred on the 10th of August, and occasioned great floods, especially in Thuringia and Saxony.[8] Upon the whole, the sun rarely broke through the heavy dark clouds. The latter part of the summer and the whole of the autumn, with the exception of a series of hot days which commenced the 24th of August,[9] remain-

[1] *Pingré*, p. 486. *Angelus*, p. 318. *Crusius*, Vol. II. p. 223.

[2] *Pingré*, p. 487. *Campo*, p. 154. *Angelus*, p. 320, and numerous other accounts. It performs its revolution in 76 years, and was observed in 1456, 1531, 1607, 1682, and 1759.

[3] *Pingré*, p. 491. *Spangenberg*, M. Chr. fol. 433. b.

[4] *Pingré*, p. 496. *Angelus*, p. 322. *Spangenberg*, M. Chr. fol. 435. a.

[5] Erfurt Chronicle. *Spangenberg*, who has availed himself frequently of this chronicle, makes use of the same words, M. Chr. fol. 431. b.

[6] They called the sour wine of this year den *Wiedertäufer-Wein;* the Anabaptist wine. *Schwelin*, p. 144.

[7] *Crusius*, Vol. II. p. 323. St. Vitus's day is on the 15th of June. On the river Neckar, at Heidelberg, they took out a child which had floated down the stream in its cradle unharmed for a distance of six (German) miles. *Franck*, fol. 252. b.

[8] *Spangenberg*, M. Chr. fol. 432. a.

[9] *Klemzen*, p. 254.

ed gloomy, cold, and wet. People fancied they were breathing the foggy air of Britain.[1]

We ought not to omit here to notice that in the north of Germany, and especially in the March of Brandenburg, eating fish, which were caught in great abundance, was generally esteemed detrimental. Malignant and contagious diseases were said to have been traced to this cause, and it was a matter of surprise that the only food which nature bounteously bestowed was so decidedly injurious.[2] It might be difficult now to discover the cause of this phenomenon, of which we possess only isolated notices, yet, passing over all other conjectures, it is quite credible either that an actual fish poison was developed,[3] or, if this notion be rejected, that a disordered condition of life, such as must be supposed to have existed in a great famine, rendered fish prejudicial to health, in the same way as sometimes occurs after protracted intermittent fevers, when the functions of the bowels are disturbed in a manner peculiar to this disease.

But it was not the inhabitants of the water alone which were affected by hidden causes of excitement in collective organic life; the fowls of the air likewise sickened, who, in their delicate and irritable organs of respiration, feel the injurious influence of the atmosphere much earlier and more sensitively than any of the unfeathered tribes, and have often been the harbingers of great danger, ere man was aware of its approach. In the neighbourhood of Freyburg in the Breisgau, dead birds were found scattered under the trees, with boils as large as peas under their wings, which indicated among them a disease, that in all probability extended far beyond the southern districts of the Rhine.[4]

The famine in Germany, during this year, is described by respectable authorities in a tone of deep sympathy. Swabia, Lorraine, Alsace, and the other southern countries bordering on the Rhine, were especially visited, so that misery there reached the same frightful height as in France. The poor emigrated and roved over the country, solely to prolong their wretched existence. Above a thousand of these half-starved mendicants came to Strasburg out of Swabia. They obtained shelter in a monastery, and

[1] *Schwelin*, p. 144. *Newenar*, fol. 69. a. "fecit tamen huius anni, ac fortasse etiam præcedentium intemperies, fluminum exundationes, frigora cum humiditate perpetuo coniuncta, *ut jam in Germania Britannicus quidam aër suscitatus videri possit.*" Similar accounts are met with in almost all the chronicles.

[2] *Leuthinger*, p. 90. see "Scriptorum," etc.

[3] Compare *Autenrieth's* excellent work on this subject.

[4] *Schiller*, sect. I. cap. 2. fol. 3. b.

attempts were made to revive them, yet many were unable to bear the food that was placed before them. Attention and nourishment did but hasten their death. Another body of more than eight hundred came in the autumn from Lorraine. These unfortunate people were kept in the city, and fed during the whole winter,[1] yet it is easy to conceive that this benevolence, which was no doubt likewise exercised in other cities,[2]—for when was humanity ever found wanting in Germany?—could only occasionally alleviate this deeply-rooted calamity. In the Venetian territories, many hundreds are said to have perished with hunger, and a like distress probably prevailed all over Upper Italy.

In the north of Germany, including the extensive sandy plains, on which wet weather is not so injurious in its effect as on a heavy clayey soil, the state of the country was upon the whole more tolerable;[3] yet, independently of the innumerable evils to which a scarcity gives rise, *suicide was more frequent*,[4] which was certainly a rarity in the sixteenth century, and only explicable by supposing that the powers of the mind became exhausted by the many and various passions, which in every individual locality excited a spirit of hatred and party feeling. The consequence of such a state of turmoil is a cold disgust of life, which finds, in the first adverse event that may occur, a pretext for self-destruction, that want alone would seldom if ever occasion: for man, if his spirit be unbroken, runs the chance of starvation in times of famine, and trusts to the faintest gleam of hope, rather than, of his own accord, abandon the enjoyment of life.

It is no less in point here to notice a kind of faint lassitude, which, to the great astonishment of the people, was felt, especially in Pomerania, in June and July,[5] up to the very period when the Sweating Sickness broke out. In the midst of their work, and without any conceivable cause, people became palsied in their hands and feet, so that even if their lives had depended upon it, they were incapable of the slightest exertion.[6] The treatment which was found successful, was to cover the patients warmly, and to supply them with nourishing food, of which they ate plenti-

[1] *Franck*, fol. 243. b.

[2] Basle among others was particularly distinguished. *Stettler*, part II. p. 34.

[3] *Spangenberg*, loc. cit.

[4] *Leuthinger*, p. 89.

[5] From Whitsuntide till towards St. James's day, the 25th of July. *Klemzen*, p. 254.

[6] Two masters of vessels, who had quitted the helm from a sudden attack of this kind, were in danger of grounding upon the Mole. Their situation was, however, noticed, and they were saved. *Klemzen*.

fully, and thus recovered again in three or four days. Phenomena of this kind, which in the present instance evidently depended on atmospherical influence, are but the extréme gradations of a generally morbid dulness of vital feeling, which might easily pass into an actual disgust of life, such as would lead to suicide.

The following years were by no means all marked by a complete failure in produce. The year 1530 was, on the contrary, plentiful, there being only some partial failures, as, for example, that which arose from a great flood in the district of the Saal, which occurred in the midst of the harvest time.[1] A very cold spring and a wet cold summer followed in 1531, with only occasional fine days; yet the ground was not altogether unproductive, and the great distress which would otherwise have been felt in Thuringia and Saxony, was checked by the establishment of granaries, so that the people were not obliged, as they often were in Swabia, to mow the green corn that they might dry the ears in ovens, and support life upon the yet unripe grain.

The years 1532 and 1533 were again very sterile, as also 1534, in consequence of the great heat and dryness of the summer. Finally, in the year 1535, the regular change of the seasons, and with it a prosperous state of cultivation, seemed to be restored, and the scarcity ceased.[2] The reports from different localities in Germany vary much, but the scarcity prevailed for full seven years[3] (from 1528 to 1534), and since its causes were not discoverable, because it was only seen by each observer in his own narrow circle, the old German adage was often called to mind: "If there is to be a scarcity, it is of no avail even should all the mountains be made of flour."[4]

Sect. 5.—Sweating Sickness in Germany, 1529.

These facts are sufficient for a preliminary sketch of the background on which moved the spectre of England, to which we now return. How long the sweating sickness may have raged there after Henry the VIIIth quitted his secluded place of refuge in order to return to his capital, no one has left any written account to show. That it spread very rapidly over the whole king-

[1] *Spangenberg*, M. Chr. fol. 432. a.

[2] Ibid. fol. 433. a. 435. b. *Schwelin*, pp. 149. 150.

[3] A Chronicler of the Marches even assures us that it lasted until 1546. Annales Berol. Marchic: but the other contemporary writers contradict this.

[4] *Spangenberg*, fol. 432. a.

dom is decidedly to be presumed, and might probably still be easily ascertainable from the written records of different places. The notion that it did not rage violently in any town more than a few weeks, is justified by corresponding phenomena of more recent occurrence, yet no doubt it continued to exist among the people, though in a mitigated degree, till the mild winter season. But there are not even the slightest data by which it can be made out that it was still in England during the summer of 1529. As an epidemic it certainly existed no longer, yet on a consideration of the state of the air in that year, it is not to be denied that isolated cases of Sweating Fever may have appeared; for in pestilences of this kind, provided their original causes continue, there always occur some straggling cases.[1] The Sweating Sickness did not advance westward to Ireland, nor did it pass the Scottish border; the historians, who would certainly have recorded so calamitous an event, are entirely silent respecting such an occurrence. The tragedy was, however, destined to be enacted elsewhere; other nations were to play their part in it.

Hamburgh was the first place on the continent in which the Sweating Sickness broke out. Men's minds were still in great excitement there in consequence of the events of the few preceding months. The Protestants had, after long and stormy contests, at length vanquished the Papists. Under the wise direction of *Bugenhagen* the great work of Reformation was just completed. The monasteries were abolished, the monks dismissed, schools were established, and peace again returned with the enjoyment of ecclesiastical freedom. Just at this moment[2] the dreaded pestilence, of which wonderful accounts had been so long and so often heard, unexpectedly made its appearance. It immediately excited, as it had ever done in England, general dismay, and before any instructions as to its treatment could be obtained, either from the English or from Germans who had been in England, it destroyed daily from forty to sixty, and altogether, within the space of twenty-two days,[3] about 1100 inhabitants, for such was the number of coffins which were at this time manufactured by the undertakers. The duration of *the great mortality*, for thus we

[1] *Newenar* indeed maintains that the Sweating Fever used to break out in England every year, fol. 68. b., but such general and unsupported assertions coming from foreigners (the Graf *Hermann von Newenar* was provost of Cologne) are wholly unworthy of credence.

[2] About the 25th of July.

[3] From St. James's day, the 25th of July, until the Assumption of the Blessed Virgin Mary on the 15th of August. *Staphorst.*

would designate the more violent raging of this pestilence, was, however, much shorter, and may be roughly estimated at about nine days, for from the fragment of a letter received from Hamburgh, which was dispatched to Wittenberg on the 8th of August, by a person who was at that time burgomaster, it appears that, for some days past, no one had died of the Sweating Fever, excepting one or two drunkards, and that the citizens were then beginning to take breath again. We may thus judge, from the unauthenticated account here mentioned, that the disease lasted about a fortnight longer, and that the loss of lives amounted to 2000. At all events, however, the pestilence manifested itself on the continent with the same malignity which was peculiar to it from the first, and if the assertion made at a distance respecting the mortality in Hamburgh were overcharged,[1] yet there certainly existed sufficient foundation for exaggerations of this sort, which are never wanting in times of such great danger. The historians of this, even at that time, powerful and civilized commercial town, have on the whole said but little regarding this important event —a circumstance easily explicable from the constant occupation of men's minds in religious affairs, and from the well-known short visitation of the epidemic, which, like a transient meteor, needed quick and cautious observation if any valuable information respecting the occurrence was to be transmitted to posterity. Some particulars of its first origin have, however, been preserved amid a mass of general assertions which convey no information. Thus it appears that the Sweating Sickness did not show itself in the town until a Captain Hermann Evers, just about the time mentioned (the 25th of July), returned from England, bringing on board with him a number of young people (probably travellers as well as sailors), of whom at least twelve died of this disease within two days.[2] According to another account, those who died

[1] It appears, for instance, somewhere in the second volume of *Leibnitz*, Scriptores rerum Brunsvicensium, that 8000 people had died of the Sweating Fever in Hamburgh. An unknown Chronicler in *Staphorst*, Part II. vol. I. p. 85, states 2000.

[2] "Moreover in the year 1529, about St. James's day, Almighty God sent a terrible disease upon the city of Hamburgh; it was the Sweating Sickness, which showed itself in a different manner, and began when Captain *Hermann Evers* came from England on St. James's day with many young companions, of whom, in the course of two days, twelve died of this disease, which was unknown as well in Hamburgh as in other countries, so that the oldest person did not recollect to have seen a similar disease." An unknown eye-witness, quoted in *Staphorst*, Part II. Vol. I. p. 83. Another person expresses himself to the same effect, p. 85. "The disease had its origin in England, for the people were there attacked in the street when they came on shore, and those who came in contact with them, many of whom were of the lower class, took it."

were not taken ill in England, but on the voyage, and the pestilence broke out after the rest of the crew had disembarked. On this point we have further a most respectable testimony to the fact, that in the night after the landing of Hermann Evers, four men died in Hamburgh of the Sweating Sickness.[1]

If we examine a little more closely these very valuable accounts, the credibility of which there is no reason to doubt, it must especially be taken into account, that at this time the Sweating Sickness had ceased to exist as an epidemic in England for at least half a year, that its appearance in single cases, although not contradictory to general views, is nevertheless by no means borne out by proof from historical evidence, and that thus it is a gratuitous and unsupported assumption that the return of Hermann Evers' crew was connected with any Sweating Sickness at all in England. If we consider, on the other hand, that the North Sea, even in ordinary years, is very foggy, so that, owing to the prevalence of north-west winds, it precipitates very heavy rain clouds over Germany; and if we bear in mind, that in the year 1529 it produced far heavier fogs than usual, we shall perceive in its waters the principal cause why the English Sweating Sickness was then developed in its greatest violence, and we may thence assume, with a greater degree of probability, that this pestilence broke out among the crew of Hermann Evers spontaneously, and without any connexion with England, in the same way, perhaps, as it did formerly on board Henry the VIIth's fleet. This supposition is strengthened by the circumstance that the ships of those times were excessively filthy, and the kind of life spent on board them was, independently of the wretched provision, uncomfortable in the highest degree, nay, almost insupportable, so that even in short voyages, the scurvy, which was the dread of sailors in those days, was of very common occurrence. Finally, we still possess the most distinct accounts, that unusual occurrences took place in the North Seas. Thus during Lent it was observed with astonishment at Stettin, that porpoises came in numbers up the frische Haff as far as the bridge, and that the Baltic cast on its shores many dead animals of this kind,[2] so that we are fully justified in

Notices of uncertain date to be found in *Adelung*, at p. 77. *Steltzner*, Part II. p. 219. In the abbrev. Hamb. Chron. p. 45, and elsewhere.

[1] "As soon as the ship arrived in Hamburgh people began to die throughout the city, and in the morning it was rumoured that four persons had died of it." From *Reimar Kock's* MS. Chron. of Lübeck. For the extract from it the author is indebted to the kindness of Professor *Ackermann* of Lübeck.

[2] *Klemzen*, p. 254. It was thought that the waters of the Baltic were poisoned.

concluding that there existed at that time a more intense development than usual of morbific influences in the marine atmosphere.

With respect, however, to the influence which the companions of Hermann Evers, impregnated as they were with the odour of the Sweating Sickness, had on the inhabitants of Hamburgh, it cannot be denied, that their intercourse with those inhabitants, in the filthy and narrow lanes of that commercial city, may have given an impulse to the eruption of the pestilence, so far as to make the already existing fuel more inflammable, or to furnish the first sparks for its ignition: yet it is equally undeniable that, under the existing circumstances, the epidemic Sweating Sickness would have broken out in Germany even without the presence of Captain Evers, although it might, perhaps, have been some weeks later, and not have made its first appearance in Hamburgh, whose inhabitants, owing to the constant prevalence of the North Sea fog, were, to all appearance, already prepared for the first reception of this fatal disease.

To determine to a day when epidemics which have been long in preparation have broken out, is, even for an observer who is present, exceedingly difficult, nay, sometimes, under the most favourable circumstances, impossible; for there occur in these visitations, certain transitions into the epidemic form of diseases which are allied to it, as well as a gradual conversion into it of morbid phenomena, which have usually begun some time before. Unless we are greatly mistaken, such was the case in the pestilence of which we are now treating; although it must be confessed, that we can obtain no precise information on this point from the physicians of those times. The following statements, for the absolute precision of which we cannot pledge ourselves after a lapse of 300 years, must therefore be judged according to this general experience; and though singly they may prove little, yet taken all together, they are capable of demonstrating the peculiar and almost wonderful manner in which the Sweating Fever spread over Germany.

In Lübeck, the next city in the Baltic, the Sweating Sickness appeared about the same time; for so early as the Friday before St. Peter *in vinculis* (30th of July), it was known, that on the preceding night a woman had died of it.[1] On the following days cases of death fearfully increased, and the disorder soon raged so violently, that people were again reminded of the Black Death

[1] *Reimar Kock's* Chronicle of Lübeck.

of 1349. The inhabitants died without number, as well in the city as in the environs, and the consternation was equal to that felt in Hamburgh.[1] In general, as was everywhere the case, robust young people of the better classes were affected, while on the other hand, children and poor people living in cellars and garrets almost all of them escaped.[2]

Now one might, either on the supposition of a progressive alteration in the atmosphere, such as occurs in the influenza, or on that of a communication of the disease from man to man, which, however, cannot be considered as a principal cause of this epidemic, have expected a gradual extension of the Sweating Sickness from Hamburgh and Lübeck to the surrounding country. This did not, however, in fact take place; for the disease next broke out at Twickau, at the foot of the Erzgebirge, distant from Hamburgh fifty German miles, and without having previously visited the rich commercial city of Leipzig. By the 14th of August, nineteen persons who had died of it were buried at Twickau; and on one of the following nights above a hundred[3] sickened, whence it is to be deduced that the pestilence was severe at that place.

Possibly the great storm on the 10th of August may have given an impulse to the development of this very remarkable epidemic; for a highly electrical state of the atmosphere increases the susceptibility for diseases. It is likewise not to be overlooked, that on the 24th of August, while the sky was overcast there came on an insufferable heat,[4] which must have debilitated the body after such long-continued cold wet weather. At all events, in the beginning of September, we find that the Sweating Fever broke out at the same time at *Stettin*, *Dantzig*, and other Prussian cities; at *Augsburg*, far to the south on the other side of the Danube, at *Cologne* on the Rhine, at *Strasbourg*, at *Frankfort* on the Maine, at *Marburg*,[5] at *Göttingen*, and at *Hanover*.[6] The position of these cities gives an impressive notion of the extent of country of which the English Sweating Sickness took possession, as it were by a magic stroke. It was like a violent conflagration, which spread in all directions; the flames, however, did not issue from one focus, but rose up every-

[1] "In the year 1529, this violent disease passed in a very short time all over Germany, and in Lübeck many of its most distinguished citizens died on the vigil of St. Peter in Vinculis." *Regkman*, p. 135. Compare *Kirchring*, p. 143. *Bonn*, p. 144.

[2] *Reimar Kock.*

[3] *Schmidt*, p. 307.

[4] See above, p. 225; and *Klemzen*, p. 254.

[5] *Euric. Cordus.*

[6] *Gruner*, It. p. 23.

where, as if self-ignited; and whilst all this occurred in Germany and Prussia, the inhabitants of the other northern countries, Denmark, Norway, and Sweden, perhaps also Lithuania, Poland, and Russia, were likewise visited by this violent disease.

The malady appeared in Stettin on the 31st of August, among the servants of the Duke.[1] On the 1st of September, the Duchess herself sickened, in common with many people about the court, and burgesses in the city. A few days afterwards several thousands were affected by the disease, so that there was not a street from which some corpses were not daily carried out. This dreadful period of terror, however, did not last much longer than a week, for about the 8th of September the pestilence abated in its violence, so as no longer to be regarded with terror; and after this time only a few isolated cases occurred.[2]

On the same day, namely, the 1st of September, the disease appeared in Dantzig, fifty German miles further to the eastward, and was here also so destructive that it carried off in a short time 3000 inhabitants,[3] some say even 6000—but this seems certainly too high an estimate for Dantzig, and probably includes the greater part of Prussia. If we were to give credence to an anonymous reporter,[4] this plague abated *in five days*, and relieved the inhabitants from the mortal anxiety which, until they recovered their senses, led them everywhere to commit acts of injustice and injury to avert the danger.

In Augsburg we find the Sweating Sickness on the 6th of September. It lasted there also only *six days*, affected about 1500 of the inhabitants, and destroyed more than half that number, or, as it is said, about 800.[5]

At Cologne it appeared precisely at the same time, as we learn from the expressions of the Count von Newenar, a prelate of that place, who finished his account of this disorder on the 7th of September.[6] At Strasburg it broke out some ten or twelve days earlier, namely, on the 24th of August. In this place about 3000 people sickened in one week, but very few of them died.[7] At Frankfort on the Maine they were holding the autumn fair (which began on the 7th of September) just at the time when

[1] Namely, on the Tuesday after the Beheading of John the Baptist (29th Aug.), which fell on a Sunday, for S. Ægidius was on the Wednesday. The dates are given throughout according to *Pilgrim's* Calendarium chronologicum.

[2] *Klemzen*, p. 255.

[3] *Curicke*, p. 271.

[4] Kronica der Preussen, fol. 191. b.

[5] *Stettler*, II. p. 33.

[6] *In Gratorol.* fol. 74. b.

[7] *Gruner*, It. p. 25, according to MS. Chronicles.

the Sweating Sickness prevailed,[1] whence arose the opinion, which has been broached again in more modern times,[2] that the traders on their return carried the disease thence throughout the whole of Germany, and that in the intercourse by means of this fair, the main cause of the spread of the epidemic was to be found. After the facts which have been brought forward, such a narrow view needs no refutation. The Sweating Sickness was fleeter than the conveyances of goods and people, which at that time made their way along the pathless and unbeaten roads; for "no sooner did a rumour of the approach of the disease reach any place than the disease itself accompanied it." [3]

Between the boundaries which have been indicated, only a few isolated towns and villages escaped, and there are probably few of the chronicles of that age, so prolific of great events, in which the dreadful scourge of the year 1529 is not expressly mentioned; yet the sweating fever, like other great epidemics, spread, doubtless, very unequally, and it is ascertained that the further south it extended, the milder it was upon the whole; and also that all those places where it broke out late suffered beyond comparison less than those which were visited early in September and in the latter part of August; for not to lay much stress on the sultry heat from the 24th of August, which probably did not last long, the chief cause of its great malignity at first was the violent method resorted to in the treatment of the sick, the inapplicability of which was fortunately soon perceived. Only one citizen was affected with the Sweating Sickness in Marburg, and even he recovered,[4] whilst at Leipzig the pestilence either never broke out at all or very much later, perhaps in October or November; for the physicians of that place gave it clearly to be understood in their pamphlets, that they knew nothing of the disease from their own observations,[5] and no sooner did the report get abroad that the dreaded enemy had not penetrated within the walls of this commercial city, than crowds of fugitives came thither from far and near in order to seek protection and security, although the place in itself was by no means fitted for a place of refuge, for the swampy atmosphere which rose from the

[1] *Franck*, fol. 253. a.

[2] By *Joseph Franck*, in the latest edition of his Praxeos Medicæ Universæ Præcepta. Compare *Gruner*, It. p. 28.

[3] *Klemzen*, p. 254.

[4] This appears from a letter of *Euricius Cordus* to the Hessian private secretary, *Joh. Rau von Nordeck*, at the end of the 2nd edition of his *Regimen*.

[5] *Magnus Hundt* closed his on the 7th October.

city ditches begot, even in those days, in the narrow and dark streets, many lingering diseases.[1]

Sect. 6.—In the Netherlands.

It is remarkable that the Netherlands were visited by the Sweating Fever[2] full four weeks later, although the commercial intercourse with England, if we were to attach any especial importance to this circumstance, was far more considerable than that of the German cities in the North Sea. It appeared for the first time in Amsterdam on the 27th of September in the forenoon, whilst the city was enveloped in a thick fog,[3] and just at the same time, perhaps a day earlier, in Antwerp, where, on the 29th of September, they made a solemn procession in order by prayer to avert greater harm from the city; for in the last days of September 400 to 500 people died of the English Sweating Sickness at that place.[4] It might have been supposed that the damp soil of Holland, and its impenetrable fogs, would invite the pestilence much earlier than the high and serene country between the Alps and the Danube, or the far distant land of Prussia, but the development of epidemics follows no human calculation or medical views! In the towns around Amsterdam the Sweating Fever appears not to have broken out until the mortality had ceased in that city, that is to say, five days after the 27th of September, so that we cannot be far wrong in assuming that in the latter end of that month, and the commencement of October, it had spread over the whole territory of the Netherlands, including Belgium.[5] Alkmaar and Waterland remained free,[6] as doubtless had been the case with particular places both in England and Germany.

The exceedingly short time that the Sweating Sickness lasted in the different places that it visited, was as astonishing as its original appearance. For since it raged in Amsterdam for only

[1] *Bayer von Elbogen*, cap. 7.

[2] It was called there the *Ingelsche Sweetsieckte*, or the Sweating Sickness.

[3] *Forest.* L. VI. Obs. VII. Schol. p. 157. Obs. VIII. c. Schol. p. 158. *Wagenaar*, T. II. p. 508.

[4] *Pontan.* p. 762. *Haraeus*, T. I. p. 581. Antwerpsch Chronykje, p. 31. *Ditmar*, p. 473.

[5] "Laquelle (sa suette) s'estendit par le pays d'Oostlande, de Hollande, Zeelande, et autres des pays bas, on en étoit endedens vingt et quatre heures mort ou guarry, elle ne dura in Zeelande pour le plus que 15 jours, dont plusieurs en moururent." *Le Petit*, T. I. Livr. VII. p. 81.

[6] *Forest.* loc. cit.

five days, and not much longer, as we have shown, in Antwerp and many German towns, it could hardly have continued more than fifteen days in any other places; thus displaying the same peculiarity on this occasion by which it had already been marked in its former visitations. This short period, however, must not be understood to include the sporadic occurrence of the disease, otherwise, as a contemporary of credit assures us, that the sweating fever attacked some persons twice and others three or even four times,[1] we might thence conclude, that, although perhaps in some places the pestilence did, after raging for a certain number of days, suddenly cease, so that no isolated cases afterwards occurred, yet that the general duration of its prevalence was longer than has been stated.

Sect. 7.—Denmark, Sweden, and Norway.

The eruption of the Sweating Fever in Denmark[2] took place at *the latter end of September*, for on the 29th of that month, four hundred of the inhabitants died of it at Copenhagen.[3] Elsinore was likewise severely visited,[4] and probably, about the same time, most of the towns and villages in that kingdom. But the accounts on this subject in the Danish Chronicles are extremely defective,[5] as owing to the extraordinary rapidity of this mortal malady, contemporary writers neglected to record, for the information of posterity, the details of a phenomenon, which there, as in other countries, must certainly have been striking from its general prevalence. Even from the imperfect notices that were given respecting it, thus much, however, is clearly perceptible, that it was the same well-known disease as elsewhere, which was now observed to pass through Denmark. In proof of this, it was principally young and strong people, as had been originally the case in England, who sickened, the old and infirm being less affected, and in the course of four and twenty hours, or at most within two days (?), the life or death of the patient was decided.

[1] *Erasm.* Epist. Lib. XXVI. ep. 58. col. 1477. b. At *Zerbst* the Sweating Fever lasted, in like manner, only five days. *Gruner*, It. p. 29.

[2] It was called there "den engelske Sved."

[3] *Frederick I.* Histor. p. 181. The same words in *Huitfeld*, T. II. p. 1315.

[4] *Boesens* Beskrivelse over Helsingöer. For this statement the author has to thank Dr. *Mansa*, regimental physician at Copenhagen.

[5] Dr. *Baden*, D.C.L., took much pains, at the request of *Gruner*, in making researches, but has elicited nothing more than *Huitfeld* has given. A copy of his Latin letter to *Gruner* on this subject has likewise reached the author through Dr. *Mansa*.

At the same period as in Denmark, the Sweating Sickness spread over the *Scandinavian Peninsula*, and was productive of the same violent symptoms in the sick, the same terror, and the same mortal anguish in those who were affected by it, not only in the capital of Sweden, where *Magnus Erikson*, brother of king *Gustavus Wasa*, died of it, but also over the whole kingdom, and in Norway. The northern historians gave graphic accounts of it, which, on a careful examination of manuscript documents, might perhaps gain still more in colouring and spirit.[1] That the Sweating Sickness likewise penetrated into Lithuania, Poland, and Livonia, if not into a part of Russia, we know only in a general way,[2] but doubtless there are written documents still in existence in these countries, which only need some careful inquirer to bring them to light. In the mean time, however, it is to be presumed, from the early appearance of the disorder in Prussia, that it prevailed in those countries at the same time as in Germany, Denmark, and the Scandinavian Peninsula. No certain trace is anywhere to be discovered that the Sweating Sickness appeared so late as December, 1529, or in January of the following year, so that, after having lasted upon the whole a quarter of a year, it disappeared everywhere, without leaving behind it any sign of its existence, or giving rise to the development of any other diseases. Among these, it pursued its course as a comet among planets, without interfering either with the French Hunger Fever, or the Italian Petechial Fever, proving a striking example to all succeeding ages of those general shocks to which the lives of the human race are subject, and a fearful scourge to the generation which it visited.

[1] *Dalin*, D. III. p. 221. *Engelske Svetten.* In *Tegel's* History of King Gustavus I. Part I. p. 267, general notices only are to be found respecting the English Sweating Sickness in Sweden, without any exact date (autumn of 1529) or description of the disease, such as are met with without number in the German Chronicles. *Sven Hedin* clearly estimates the mortality in the epidemic sweating fever too highly, when he compares it, p. 27, with the depopulation caused by the Black Death. He gives (p. 47) a striking passage on the Sweating Sickness from Linneus's pathological prælections. The great naturalist has, however, allowed free scope to his imagination, and, like all the physicians of modern times who have delivered their sentiments on the English Sweating Sickness, knows far too little of the facts to be able to form a right judgment on the subject. (Supplement till Handboken för Praktiska Läkarevetenskapen, rörande epidemiska och smittosamma sjukdomar i allmänhet, och särdeles de Pestilentialiska. 1 sta St. Stockholm, 1805. 8vo.)

[2] From *Reimar Kock's* MS. Chronicle of Lübeck, and *Forest*, loc. cit. Compare *Gruner's* Itinerarium, which is prepared throughout with laudable and even tedious diligence, but which met with so little acknowledgment in the Brunonian age, that it has already become a rare work.

Sect. 8. —Terror.

The alarm which prevailed in Germany surpasses all description, and bordered upon maniacal despair. As soon as the pestilence appeared on the continent, horrifying accounts of the unheard-of sufferings of those affected, and the certainty of their death, passed like wild-fire from mouth to mouth. Men's minds were paralysed with terror, and the imagination exaggerated the calamity, which seemed to have come upon them like a last judgment. The English Sweating Sickness was the theme of discourse everywhere, and if any one happened to be taken ill of fever, no matter of what kind, it was immediately converted into this demon, whose spectre form continually haunted the oppressed spirit. At the same time, the unfortunate delusion existed, that whoever wished to escape death when seized with the English pestilence, *must perspire for twenty-four hours without intermission.*[1] So they put the patients, whether they had the Sweating Sickness or not (for who had calmness enough to distinguish it?), instantly to bed, covered them with feather-beds and furs, and whilst the stove was heated to the utmost, closed the doors and windows with the greatest care to prevent all access of cool air. In order, moreover, to prevent the sufferer, should he be somewhat impatient, from throwing off his hot load, some persons in health likewise lay upon him, and thus oppressed him to such a degree, that he could neither stir hand nor foot, and finally, in this rehearsal of hell, being bathed in an agonizing sweat, gave up the ghost, when, perhaps, if his too officious relatives had manifested a little discretion, he might have been saved without difficulty.[2]

There dwelt a physician in Zwickau—we no longer know the name of this estimable man—who, full of zeal for the good of mankind, opposed this destructive folly. He went from house to

[1] "According to which it was given out by some, that a sweat must be kept up for twenty-four hours in succession, and in the mean time, that no air should be admitted to the patient. This treatment sent many to their graves."—Erfurt Chronicle.

[2] Erfurt Chronicle, and in the same strain *Spangenberg*, M. Chr. fol. 402. b. *Pomarius*, p. 617, and *Schmidt*, p. 305. *Gemma* writes of the Netherlands, L. I. c. 8. p. 189, having received his account from his father, who was himself the subject of the Sweating Sickness: "Consuti (sewn up) et violenter operti clamitabant misere, obtestabantur Deum atque hominum fidem, sese dimitterent, se *suffocari iniectis molibus, sese vitam in summis angustiis exhalare*, sed assistentes has querelas ex rabie proficisci, *medicorum opinione persuasi*, urgebant continue usque ad 24 horas," etc.

house, and wherever he found a patient buried in a hot bed, dragged him out with his own hands, everywhere forbad that the sick should thus be tortured with heat, and saved by his decisive conduct many, who but for him, must have been smothered like the rest.[1] It often happened, at this time, that amidst a circle of friends, if the Sweating Sickness was only brought to mind by a single word, first one, and then another, was seized with a tormenting anguish, their blood curdled, and, certain of their destruction, they quietly slunk away home, and there actually became a prey to death.[2] This mortal fear is a heavy addition to the scourge of rapidly fatal epidemics, and is, properly speaking, an inflammatory disease of the mind, which, in its proximate effects upon the spirits, bears some resemblance to the nightmare. It confuses the understanding, so as to render it incapable of estimating external circumstances according to their true relations to each other; it magnifies a gnat into a monster, a distant improbable danger into a horrible spectre which takes a firm hold of the imagination; all actions are perverted, and if, during this state of distraction, any other disease break out, the patient conceives that he is the devoted victim of the much-dreaded epidemic, like those unfortunate persons, who, having been bitten by a harmless animal, nevertheless become the subjects of an imaginary hydrophobia. Thus, during the calamitous autumn of 1529, many may have been seized with only an imaginary Sweating Sickness, and under the towering heap of clothing on their loaded beds have met with their graves.[3] Others among these brain-sick people who had the good fortune to remain exempt from bodily ailments, many of them even boasting of their firmness, fell, through the violent commotions in their nerves, into a state of chronic hypochondriasis, which, under circumstances of this sort, is marked by shuddering, and a feeling of uneasiness and dread at the bare mention of the original cause of terror, even when there is no longer any trace of its existence.[4] A person thus disordered in his mind, was recently seen to destroy himself[5] on receiving false intelligence of the return of the late

[1] *Schmidt*, loc. cit.

[2] —— "*Animos omnium terrore perculit adeo ut multis metus et imaginatio morbum conciliarit.*" *Erasm.* Epist. L. XXVI. ep. 56. c. 1476. a. *Spangenberg*, loc. cit.

[3] "Many an one sweats for fear and thinks he has the English sweat, and when he afterwards hath slept it off, acknowledges that it was all nonsense." *Bayer v. Elbogen*, cap. 8.

[4] The author could adduce some extraordinary instances of this kind which have occurred in his own practice.

[5] It was a greengrocer in Paris. *Berliner Vossische Zeitung*, Sept. 2, 1833.

epidemic; thus betraying conduct even more dastardly than those cowardly soldiers, who, when the cannon begin to roar, inflict on themselves slight wounds that they may avoid sharing the dangers of the battle.

To have a full notion how men's minds were previously prepared for this state, we have but to think on the monstrous events which took place in Germany. Twelve years earlier the gigantic work of the Reformation had been begun by the greatest German of that age, and, with the Divine power of the gospel, triumphantly carried through up to that period. The excitement was beyond all bounds. The new doctrine took root in towns and villages, but nevertheless, the most mortal party hatred raged on all sides, and, as usually happens in times of such impassioned commotion, selfishness was the animating spirit which ruled on both sides, and seized the torch of faith, in order, for her unholy purposes, to envelope the world in fire and flames.

So early as the year 1521, during Luther's concealment within the walls of Wartburg, false prophets[1] arose, and desired, without the aid of their great master, who was the soul of that age, to complete a work with the spirit of which they were not imbued. They brought the wildest passions into action, but, destitute of innate firmness, and incapable of curbing themselves, they became incendiaries and iconoclasts. Immediately upon this the unhappy peasant-war broke out—a consequence of the arbitrary conduct and oppression practised from times of old, for which the abettors of Dr. Eck's sentiments would charge Luther himself as answerable; not perceiving that it was the excitement of the times and of the false prophets which had given occasion to the rebellion. Events occurred, from the recollection of which human feeling still recoils. Never was the fair soil of Germany the scene of more atrocious cruelties; and after vengeance had played her insane part without opposition, the melancholy result was, that hundreds of thousands of once peaceful, and for the most part misled, peasants, fell by the sword of the Lansquenets and of the executioner, while their numerous survivors became a prey to the dearth which visited the country in the following years. The battle of Frankenhausen on the 15th of May, 1525, and Münzer's subsequent execution, closed this bloody scene. The consequences of such intestine commotions continued however to be felt long after, and considered apart from their highly prejudicial influence

[1] *Carlstadt, Nic. Storch, Marcus Thomä, Marus Stubner, Martin Cellarius,* and *Thomas Münzer.*

on the prosperity of the people, conduced not a little to break the spirit of mankind, signs of which the wise men of those times have plainly pointed out.[1]

Sect. 9.—Moral Consequences.

The dejection was increased by the universally active spirit of persecution with which it was still hoped to eradicate the new doctrine. Even whilst the English pestilence was raging, two Protestants were burnt at Cologne.[2] In the same year faggots blazed at Mecklin, Verden, and Paris, by the flames of which the ancient faith was to be protected against the pestilence of freedom of thought. Sentences of death were also quite commonly pronounced against the Anabaptists in Protestant countries. The University of Leipzig pronounced a condemnation of this sort in the year 1529, and in Freistadt eleven women were drowned after a nominal trial and sentence, because they acknowledged that they were of this sect.[3] Amidst these dissensions, and when the empire was in this helpless condition, came the fear of the barbarians of the south, who had already conquered Hungary under their Sultan Soliman, and, whilst the English Sweat was raging in the countries of the Danube, threatened to overwhelm Germany. It was a time of distress and lamentations, in which even the most undaunted could scarcely sustain their courage;[4] but to the everlasting honour of the Germans it must be acknowledged that they withstood this purifying fire with unsullied honour, and in a manner worthy of themselves. For their noble spirits were aroused to unheard-of exertions of energy, and whilst the pusillanimous gave themselves up to despair, they impressed on the gigantic work of their age the stamp of imperishable truth.

[1] "For all love hath grown cold in all nations; the axe lieth at the root of the tree, the rope is already applied, no one observeth it. For the world is stricken with thick blindness, faith is extinguished. All singleness and Godly fear hath withdrawn from the land for ever, and nothing but false hypocritical make-believe work is to be found among the Baptists, and at most a false, fictitious, fruitless, dead, tottering faith in the other sects, and yet the world thinks, notwithstanding, that she sees and sits in light. In short, for the one devil of the Baptists whom she has driven out, she is beset with seven more subtle and wickeder spirits, though she think that she be freed, and that they be all gone forth." *Franck*, fol. 248, a. This same Chronicle contains a very lively description of the Peasant-war.

[2] *Ad. Clarenbach* and *Peter Flistedt.*

[3] *Schmidt*, p. 308.

[4] Nusquam pax, nullum iter tutum est, rerum charitate, penuria, fame, pestilentia laboratur ubique, sectis dissecta sunt omnia: ad tantam malorum lernam accessit letalis sudor, multos intra horas octo tollens e medio, etc. *Erasm.* Epist. L. XXVI. ep. 58. c. 1477. b.

The siege of Vienna began on the 22nd of September, after the English pestilence had broken out in this capital of Austria, yet nobody regarded this internal danger. The repeated attempts made by the Turks to storm the town were repulsed with great courage, and, on the 15th of October, Soliman raised the siege, after the Sweating Sickness had raged with as much violence among his troops as among the besieged.[1] There is no accurate intelligence extant upon this subject, because the pestilence was less regarded here than elsewhere, in consequence of the great distress of the country from other causes, yet the mortality in Austria, under such unfavourable circumstances, was doubtless more considerable than in the neighbouring states.[2]

In the north of Germany another struggle was to be decided. The evangelical party wished to declare their faith before the empire and its ruler, to reveal the object of their efforts, and to defend the purity of their creed against danger and assault. For this purpose they prepared themselves with wise discretion, and in the measures taken by the reformers for the fortification of the great work, not the slightest trace was to be observed of the anxiety which at that time agitated the people. In the midst of a country whose inhabitants trembled at the new disease, and were perhaps already severely afflicted with it, did Luther, whilst at Marburg,[3] sketch the first outlines of a profession of faith, which, as filled up by Melancthon, has become the foundation-stone of the evangelical church; and in the following spring, during his stay at Coburg, he composed his sublime hymn, "Eine feste burg ist unser Gott," a strong fortress is our God.

It could not but happen that, in the religious struggles which took place in these years, especial importance would be attributed to the English pestilence. Epidemics readily appear to man, in the narrow circle of his view, as scourges of God; and, indeed, this representation of them has ever been the prevailing one in all religions. For it is easier to estimate the ever-existing sins of humanity than the grand commotions comprehending both mind and body, of a terrestrial organism, which can only be perceived by a superior insight into things; and the mean selfishness of mankind and their delusions respecting their own qualities induce them to adopt the more easily the partial view, that the Supreme Being allows pestilences to exist only to destroy their enemies of another faith. On this account, not only do most contemporary

[1] *Fuhrmann*, Part II. p. 745.

[2] Chronicon Monasterii Mellicensis. In *Pez*, T. I. col. 285.

[3] The Assembly of the Reformers began there on the 2nd of October.

writers speak of the just wrath of God, and of the chastisement thus prepared for the sins of the world,[1] but the papal party took every possible pains to represent the English pestilence as a punishment for heresy and an evident warning against the triumphant doctrines of Luther. The cases in Hamburgh, where the eruption of the Sweating Sickness almost immediately followed the abolition of the monasteries, may certainly have obtained credit for such representations among the wavering and short-sighted, and, in a hundred other towns also, the Papists may have taken advantage of a similar occurrence of circumstances, for 1529 was a year when great and important questions were decided. At Lübeck, the monks in general preached that the English sweating fever was but a punishment which heaven inflicted on the Martineans, for so they called the followers of Luther, and the people were not undeceived until they saw with astonishment that Catholics also fell sick and died.[2] They went, however, much further, and did not hesitate to employ even falsehood and cruel revenge to gain their ends. Thus it was asserted that the meeting of the reformers at Marburg, on the 2nd of October, had led to no union among them, because a panic at the new disease had seized the heretics.[3] Never did a dastardly fear of death enter the heart of Luther, who, when the plague broke out at Wittenberg in 1527, cheerfully and courageously remained at his post whilst all around him fled, and the high school was removed to Jena. Moreover, as we have seen, the Sweating Sickness never once came near Marburg, and the union of the two evengelical churches failed on totally different grounds.

In Cologne the zealots were of opinion that they ought to endeavour to appease the visible wrath of God by the punishment of the heretics, and it was this sanguinary delusion, worthy of savage barbarians, which hastened the burning of Flistedt and Clarenbach.[4] To the completion of this picture of the times, many other minor touches might be added, of which the following may

[1] The pamphlet written by *Magnus Hundt* is ornamented with a wood-cut, where, under the throne of God and seated on lions who are spitting forth fire, a great host of angels, armed with swords, are hovering round men, whom they treat worse than Herod's soldiers treated the children of Bethlehem.

[2] *Reimar Kock's* Chronicle of Lübeck.

[3] *Kersenbroick* in Sprengel, II. p. 687. Compare *Sleidan*, L. VI. Tom. I. p. 380, who plainly and simply states the fact.

[4] Culpam eius rei plerique conferebant in theologos concionatores, qui suppliciis impiorum placandam esse clamabant iram Dei, novo morbi genere nos verberantis. *Sleidan*, loc. cit. p. 380.

be taken as an example. In the March of Brandenburg the evangelical faith, notwithstanding great obstacles, spread every day more and more, and the Catholic priests soon found themselves deserted. Just as the Sweating Sickness broke out at Friedeberg, in the Newmark, a curate there delivered a sermon full of enthusiasm and passion, and endeavoured to convince his apostate congregation that God had invented a new plague in order to chastise the new heresy. A solemn procession, according to ancient usage and orthodox prescription, was to be held on the following day, and thus the congregation was to be led back into the bosom of the only true church. But behold, in the course of the night, the zealous curate died of some sudden disease; and as mankind are ever ready to interpret even the thunders of the Eternal according to their own wishes and narrow notions, the Protestants, it seems, did not fail in their turn to represent this event as a miracle.[1]

Sect. 10.—The Physicians.

Under these circumstances, the faculty had a very difficult problem before them, for the very imperfect solution of which they cannot justly be reproached. A learned and active physician is certainly one of the noblest of the diversified forms of humanity; for he unites in himself the power arising from an insight into the works of nature, with the exercise of a pure philanthropy inseparable from his office. Few men, however, of this ideal perfection lived in those times, and their mitigating influence over the violence of the epidemic, which was generally past before they could closely examine their new enemy and give any deliberate advice, was doubtless but very inconsiderable. By so much the more busy were the ignorant and covetous, who, from time immemorial, the more numerous body in the profession, have always injured it in its moral dignity. They attacked the disease with bold assertions, alarmed the people with inconsiderate representations, lauded the infallibility of their remedies, and were the promulgators of injurious prejudices. In the Netherlands, as we are assured by *Tyengius*, a physician whom we reckon among the learned and benevolent, a vast number of patients died of the effects produced by the distribution of pernicious pamphlets, with which the Sweating Sickness was to be combated by those ignorant interlopers, who many of them gave

[1] *Haftitz*, p. 131. *Angelus*, p. 319. *Cramer*, Book III. p. 76, and many others.

it out that they had been in England, boasting to the inhabitants of their experience and skill, and with their pills and their "hellish electuaries," flitting about from place to place,[1] especially where rich merchants were to be found, from whom, should they be restored, they obtained the promise of mines of gold.[2] The like occurred in Germany, where, at the commencement, the sound sense of the people was overcome by this officiousness, and violent remedies were recommended as certain means of cure, in a deluge of pamphlets, some of which were written by persons not in the profession.

From this impure source was derived the prescription of the compulsory[3] perspiration for twenty-four hours, which, in the districts of the Rhine, was called the Netherlands regimen;[4] and it is unpardonable, that the physicians, either with blind pride disregarded, or were totally unacquainted with the prior experience of the English, which advocated discretion and the most appropriate line of treatment. This neglect, which was not compensated until thousands had already fallen, may possibly have arisen from the blameable silence of the English physicians, of whom, as if England had not yet been enlightened by the dawn of science, not an individual had written on the Sweating Sickness, or proposed a reasonable line of treatment, since the year 1485. Between England and Germany there existed, nevertheless, a constant intercourse; and it is incredible that that mode of procedure, which did not originate from a formal medical school, but from the sound sense of the people, should not have become earlier known on this side of the North Sea.

We must not here overlook the habits and domestic manners of the Germans, for these favoured not a little the baneful prejudice with regard to heat, for which we would not altogether make the physicians responsible. Housewives, even at that time,

[1] "Verum quamplurimi, tam nobiles quam populares viri ac mulieres, hoc morbo misere suffocati sunt, *ob libellos erroneos*, ab indoctissimis hominibus in vulgus emissos, qui in eiusmodi lue curanda peritiam et experientiam jactabant, multosque in Angliâ aliisque regionibus sese curasse dicebant, cum omnia falsa essent. Tales inquam minima pietate fulti erga ægrotos, *illorum loculos tantum expilabant*, ac in sui commodum convertebant, nullam de aliorum damnis nec morte ipsa curam gerentes, sed quæ sua sunt tantum curantes, nulla arte instructi miseros ægros, passim sua ignorantia trucidabant." *Forest.* L. VI. obs. 8. p. 158. a.

[2] "Ditissimi negociatores, lectis adfixi medicos ad se vocabant, montes auri promittentes, si curarentur." *Ditmar*, p. 473.

[3] Nam occlusis rimis omnibus, et excitato igne copioso, opertisque stragulis, quo magis tutiusque suderent, æstu præfocati sunt." *Forest.* loc. cit. p. 157. b.

[4] *Wild*, in *Baldinger*, p. 278.

set far too much store by high beds, which annually received the feathers of the geese consumed at the table. The comforts of a warm feather-bed were highly appreciated, and least of all were they disposed to deny them to the sick. Thus all inflammatory disorders were stimulated to much greater malignity, because such a bed either caused a dry heat, even to the extent of burning fever, or a useless debilitating perspiration. To this effect the very extensive misuse of hot baths conduced; and no less so the custom of clothing much too warmly. Upon the whole the notion was prevalent, as well with the people as with medical men, that diseases were to be combated by warmth and sudorifics. To new epidemics, however, the prevailing notions and customs are always applied; for the great mass of mankind, among whom may be included medical men, are entirely ruled by them; so that in this instance, the Sweating Sickness fell upon a country in which its utmost malignity would be called forth.

Yet after the first few days, in which many unfortunate cases occurred, people became aware of the error they had committed. An advocate of the twenty-four hours' sudation, who, though not a medical man, had lauded this practice in a pamphlet on the subject,[1] died in Zwickau on the 5th of September, the victim of his own imprudence. A few days after him died an apothecary, likewise treated with the heated bed. Upon this the physicians immediately abandoned the practice, directed that their patients should be sweated only for five or six hours, and in a more moderate degree: and the estimable anonymous writer to whom we have already alluded, thus seemed to meet with converts to his belief. In Hamburgh also, men became convinced of the pernicious effects of feather-beds, and gave the preference to coverings of blankets;[2] for the English plan of treatment was presently known, and intelligent philanthropists, who saw its curative powers, made it public[3] in all quarters, through the medium of their correspondence. In Lübeck there lived at the time of the Sweating Fever a learned Protestant Englishman, Dr. Anthony Barns, who, with great kindness, made known everywhere the English treatment of the disease. He was, however, after the cessation of the pestilence, banished the city, because he had petitioned the bigoted Catholic senate to tolerate his Protestant brethren. Many were saved by him; for it was the practice in this city also, *to stew to death*[4]

[1] The printer *Frantz*. *Schmidt*, p. 307.

[2] *Stelzner*, Part II. p. 219.

[3] This appears from the Wittenberg regimen.

[4] *Reimar Kock's* Chronicle of Lübeck.

those affected with the disease. In Stettin the English treatment was promulgated in good time, and two travelling artisans who had come thither from Hamburgh, were of the greatest assistance to the inhabitants of this city, by advising them to take the feathers out of their upper beds; they made known likewise how the sickness had been treated with success. They had seen cases themselves, and could therefore distinguish by their odour those who were suffering from the true sweating epidemic, from those who were seized with fever arising from panic. They were constantly besieged by persons asking questions and seeking assistance; and when the disease was at its greatest height, the streets were quite illuminated at night by the lights of the relatives of the patients,[1] who were running in all directions in a state of distraction. The abhorrence of feather-beds, and the hot plan, now followed so quickly the blind recommendation of the twenty-four hours' sweat, that by the middle of September, and in many places still earlier, more correct views were generally adopted, and some intelligent men, after the sad experience which had been gained, seized the opportunity of doing more good to the public than their noisy predecessors, who had by this time so abundantly supplied the churchyards with bodies. Among these literally and truly *beneficent* physicians may be reckoned Peter Wild, at Worms,[2] who warned his countrymen against the Netherlands practice; [3] as also an anonymous person (the names of the best often remain unknown in times of confusion), who, in popular language, strenuously dissuaded the people against the use of feather-beds.[4] It also soon

[1] *Klemzen*, p. 255.

[2] *In Gratoroli: Petrus*, proto medicus, fol. 90. [3] See his pamphlet.

[4] I here give the whole pamphlet, which only occupies five pages. It is entitled, "The Remedy, Advice, Succour, and Consolation against the dreadful, and as yet by us Germans unheard-of, speedy, and mortal Disease, called the English Sweating Sickness, from which may Almighty God mercifully protect us."

"When the disease and sweating sets in, ask what o'clock it is, and note it.

"If any one be afflicted with this pestilence (may God protect us from it!) it attacks him either with heat or with cold, and he will sweat violently; and this will take place all over his body. Some take the disease with sudden eructations, and do not sweat; and to those who do not sweat, a flower of mace with warm beer is given, and then they sweat.

"But if the pestilence and disease, from which may God preserve us! attack any one after he has lain down in bed, he must be left there; but if he has a feather-bed, though a thin one, over him, cut it open and take the feathers out, that it may consist only of the ticking or covering. If it be too thin, add a cool coverlet, and let the patient lie under that, covered up to the neck, and take care that the air do not touch or strike upon his breast, or under his arms, and the soles of his feet, and let him not toss about.

"Item. Two men should attend the patient, to prevent him from uncovering himself, and from going to sleep.

became a common saying, "The Sweating Sickness will bear no medicine."[1]

There is no ground for supposing that the influence of the faculty was much greater in the country where the Sweating Sickness originated than it was in Germany, for the number of learned physicians there was still fewer, and the knowledge of medicine not nearly so extended as it was in Italy, Germany, and France. The learned Linacre had already died in the year 1524. John Chambre,[2] Edward Wotton,[3] and George Owen,[4] were the King's body physicians about the time of the fourth epidemic visitation of the Sweating Sickness. William Butts,[5] of whom

"Item. The same two men must watch the patient, and guard him against sleeping: if they neglect this, and do not so prevent him, and the patient sleep, he will lose his senses, and go raving mad.

"In order, however, that he may be prevented from sleeping, take a little rose-water, and by means of a sponge or clean napkin, bathe his temples with it between the eyes and the ears, and by means of a sponge or napkin, apply pungent wine or beer vinegar to his nose, and talk constantly to him so that he fall not asleep.

"If he would drink, give him a thin beverage, which should be a little warm; and he ought not to be given more than two spoonfuls at a time.

"Item. On the patient's head should be placed a linen night-cap, and a woollen one over it.

"Item. A warm towel should be taken, and with it the sweat wiped from the face.

"Item. Whoever is attacked in the day-time must be put to bed; if it be a man, in his stockings and breeches; if a woman, in her clothes; and let them be covered over with not more than two thin coverings; and above all things, no feather-bed; and then treat them as above written.

"Item. The disease attacks most people from great dread and from irregular living, from which a man should guard himself with great pains.

"Once for all, the patient must not have his own way; what he would have you do for him, that must not be done.

"Item. With respect to those whom it attacks in the night, and who lie naked, if they will not lie still, let them be sewn up in the sheets, and let the sheets be sewn to the bed, so that no air can come from beneath; and then cover them as before.

"Summa. Whoever can thus endure for twenty-four hours, by the blessing of God, will be cured of the sickness, and get well.

"If a man has held out for twenty-four hours, let him be taken up, and wrapped in a warm sheet lest he become cold, and throw something over his feet, and bring him to the fire; and, above all things, let him not go into the air for four days, and let him avoid much and cold drink.

"If he would sleep, provided twenty-four hours have been passed, let him sleep freely; and may God preserve him!

"The Lord is Almighty over us! Amen."

The place of publication is wanting. It was probably either Leipzig or Wittenberg.

[1] *Magnus Hundt*, fol. 27. a. "Nullis vero aliis medicamentis utuntur adversus ipsam, quam expectatione sudoris, nam quibus advenit, omnes fere evadunt, quibus autem retinetur, maxima pars perit." *Forest.* loc. cit. p. 159. a. Schol.

[2] Born about 1483; died 1549. [3] Born 1492; died 1555. [4] Died 1558.

[5] Died 1545. "Vir gravis; eximia litterarum cognitione, singulari judicio, summa experientia, et prudenti consilio Doctor." *Aikin*, p. 47.

Shakespeare[1] has made honourable mention, in all probability likewise held a similar office. These were certainly distinguished and worthy men,[2] but posterity has gained nothing from them on the subject of the English Sweating Sickness. All these physicians were well informed, zealous, and doubtless also cautious followers of the ancient Greek school of medicine, but their merits were of no advantage to the people, who, when they departed from the dictates of their own understanding, and did not content themselves with domestic remedies, to which they had been accustomed, fell into the hands of a set of surgeons so rude and ignorant that they could only exist in the state of society which then prevailed.[3]

[1] In *Henry VIII.*

[2] See their biography, in *Aikin.*

[3] *Thomas Gale's* description of this class of medical practitioners gives the best notion of their abilities. "I remember," says he, "when I was in the wars at Montreuil (1544), in the time of that most famous Prince, Henry VIII., there was a great rabblement there, that took upon them to be surgeons. Some were sow gelders, and some horse gelders, with tinkers and cobblers. This noble sect did such great cures, that they got themselves a perpetual name; for like as Thessalus' sect were called Thessalions, so was this noble rabblement, for their notorious cures, called dog-leeches; for in two dressings they did commonly make their cures whole and sound for ever, so that they neither felt heat nor cold, nor no manner of pain after. But when the Duke of Norfolk, who was then general, understood how the people did die, and that of small wounds, he sent for me and certain other surgeons, commanding us to make search how these men came to their death, whether it were by the grievousness of their wounds, or by the lack of knowledge of the surgeons, and we, according to our commandment, made search through all the camp, and found many of the same good fellows which took upon them the names of surgeons, not only the names, but the wages also. We asking of them whether they were surgeons or no, they said they were; we demanded with whom they were brought up, and they, with shameless faces, would answer, either with one cunning man, or another, which was dead. Then we demanded of them what chirurgery stuff they had to cure men withal; and they would show us a pot or a box, which they had in a budget, wherein was such trumpery as they did use to grease horses' heels withal, and laid upon scabbed horses' backs, with verval and such like. And others that were cobblers and tinkers, they used shoemakers' wax, with the rust of old pans, and made therewithal a noble salve, as they did term it. But in the end this worthy rabblement was committed to the Marshalsea, and threatened by the Duke's Grace to be hanged for their worthy deeds, except they would declare the truth, what they were and of what occupations, and in the end they did confess, as I have declared to you before."

In another place Gale says, "I have, myself, in the time of King Henry VIII., holpe to furnish out of London, in one year, which served by sea and land, threescore and twelve surgeons, which were good workmen, and well able to serve, and all English men. At this present day there are not thirty-four, of all the whole company, of Englishmen, and yet the most part of them be in noblemen's service, so that if we should have need, I do not know where to find twelve sufficient men. What do I say? sufficient men: nay, I would there were ten amongst all the company, worthy to be called surgeons."

Sect. 11.—Pamphlets.

Inexplicable as the silence of the learned physicians of England, on the Sweating Sickness, appears at first view, (for where is the use of learning if it fail to throw any light on the stormy phenomena of life?) we may yet find, perhaps, its cause in a perfectly simple external circumstance. The Reformation had not yet begun in England, the Catholic Church still stood on its ancient foundations, and an intellectual intercourse between the learned and the people was not by any means among the acknowledged desiderata. The faculty would hence have been able to treat of the new disorder only in ponderous Latin works, for they wrote unwillingly in their own language, and the subject could not seem to them an appropriate one for this purpose, because they found it unnoticed and uninvestigated by their highly revered masters the Greeks. They were ignorant that a sweating fever had ever appeared among the ancients, which, otherwise, might have incited them to make researches of their own on the subject; for Aurelian, who describes it to the life, was either unknown to them, or, what at that time was a valid ground, was despised by them, on account of his bad (unclassical) language.

In Germany, on the contrary, the intellectual wants of the people and of the educated classes had already manifested themselves very differently. Twelve years before, the age of pamphlets had there commenced. The thoughts of Luther and of his disciples, as also of his opposers, were winged by the rapid press, and the people took an impassioned part in the endeavours of the learned to effect their conviction, and by this altogether novel and authoritative mode of religious instruction, became gradually educated and guided. Hence it is not to be wondered at that people began to investigate, in pamphlets, other important subjects likewise, and thus we see this weighty branch of intellectual commerce, with all its advantages and defects, also turned towards the discussion of popular diseases, and for the first time unfolding its numerous leaves on the subject of the English epidemic. In the maritime cities nothing of this kind happened, because the eruption of the pestilence took them by surprise, and as it was over again in the course of a few weeks, it seemed no longer worth while to instruct the people respecting it.

This surprise was very plainly shown in the answer of the doctors and licentiates who were assembled together at the bed-

side of the Duchess, at Stettin: "the disease was new and unknown to them: they were at a loss what to advise, excepting strengthening medicines."[1] In the central parts of Germany, on the contrary, where, as early as the month of August, the report of the new plague had excited the utmost alarm, and where an eruption of the pestilence in Zwickau had caused a general flight, publications on the Sweating Sickness were even within that month, and still more numerously in September, disseminated in all directions. As scientific productions, they are almost all of them worthless. Many of them, indeed, did harm, and but very few promulgated correct views. Most of them are now lost, as, for example, that which was published by the printer Frantz, at Zwickau, on the 3rd of September: but in what vast numbers they were published appears from the circumstance that Dr. Bayer, at Leipzig, who brought out his own on the 4th of September, states that he has read many of them, and expresses his indignation against these "new unfounded little books," by which the people were misled to their own sorrow and suffering.[2] This same Dr. Bayer writes in the style of an intelligent practical physician, inveighs boldly against the prejudices of mankind, and the ignorance of medical *journeymen*, and against their senseless bleedings whenever they see the barber's basin and his pole. Some of his advice too is not bad, especially where he is speaking of the Arabian use of harmless syrups. He, however, religiously preserves all the rubbish of his age, and has a great opinion of preventive bleedings, purgatives, and powerful medicines, of which he prescribes so many that his reader is necessarily confused by their multiplicity. His precepts respecting the sweat are very appropriate, for he gives a caution against forcing perspiration, prescribes according to the circumstances, and even commences the treatment with an emetic, if the state of the stomach seems to indicate its employment. In order to guard against contagion, he recommends, at the approaching autumnal fair, that foreigners from "*dying lands*" *should be accommodated in distinct inns*, that fumigation should be carefully employed, and that before each booth at the fair a fire should be kept up.

Another pamphlet by Caspar Kegeler, of Leipzig, is a melancholy monument of the credulity which, from Herophilus to the present day, has pervaded the whole medical art. It is a regular pharmacopœia for the Sweating Sickness, thrown together at a venture, without any insight into the nature of the disease. A

[1] *Klemzen*, p. 255.

[2] Part I. cap. 8.

mine of wonderful pills and electuaries composed of numberless ingredients wherewith this "mysterious worthy" undertakes to raise a commotion in the bodies of his patients. If he had but seen even a single case of the disease he would at least have known how impossible it would be to administer, within the space of four-and-twenty hours, the hundredth part of his pills and draughts. With what approbation this little pharmacopœia was received by physicians of equal penetration and understanding as himself, is shown by the eight editions which it passed through,[1] and the melancholy reflection is therefore forced upon us, that possibly thousands of sick persons were maltreated and sacrificed from the employment of Kegeler's medicines.

A third physician at Leipzig, Dr. John Hellwetter, states in his pamphlet, that he has become acquainted with the Sweating Fever in foreign countries, and on the subject of perspiration gives some very good advice, evidently the result of his own experience, which reminds us of the original English mode of treatment. His notion that fish is injurious seems to have originated in the fact that the continued employment of fish as an article of diet gives rise to offensive perspirations, and his admonition to his medical brethren not to flee from the sick, but to visit them sedulously and give them consolation, furnishes ground for supposing that some of them had been pusillanimous and dishonourable enough to withdraw themselves or to refuse their assistance to the poor.

Almost all the medical men of those times were in possession of arcana, which they employed either in all or at least in most diseases, in a very unprofessional manner, and the efficacy of which the sweet delusions of self-interest did not permit them to call in question. The severe metallic remedies of the Spagyric school, which was then in its infancy, were not yet introduced, but there were not wanting strong heating medicines from the ancient stores of the empyrics, which almost universally obtained the preference over the mild potions and syrups of the Arabians. Hellwetter sold a powder of unknown composition, and a number of distilled waters, which Dr. Magnus Hundt, of Leipzig, notices with much approbation. The pamphlet of this physician is in every respect of the most ordinary kind; it affords no proof that the author had any sound comprehension of the disease, and belongs to that class of low medical compositions which, in times of danger, is so easily derided by the public, and so much diminishes

[1] *Gruner*, Script. p. 11.

the estimation of the profession, to the material injury of the general welfare.

It must not, however, be supposed that the people, who in such times of commotion often confound together the good and the bad, listened everywhere so readily to these pamphleteers. The composition of one Dr. Klump, at Ueberlingen, who, on the breaking out of the disease, attacked his patients with theriac and all kinds of heating plague powders, excited great derision,[1] and it cannot be denied that the people had on their side, at least occasionally, the advantage of sound sense, as opposed to the endless prescriptions of the physicians, and it is gratifying to observe how this sound sense, which doubtless was guided by respectable medical men, operated in a great many towns to the advantage of those affected.

This is proved by a pamphlet, written in popular language, by a physician in Wittenberg,[2] which contains such correct medical views, that our highest approbation is, even now, justly due to its unknown author, as showing, throughout, great judgment and a very competent knowledge of the Sweating Fever. His whole treatment is mild and cautious; he forbids the use of feather-beds, but strongly inculcates the necessity of avoiding every kind of chill, and therefore recommends a practice in use at that time, called "*the sewing of the sick*," that is to say, fastening the edge of the bed clothes to the bed with a needle and thread. He orders his patients a moderate quantity of warm but not heating beverage,[3] refreshes them with syrup of roses, and impresses upon his readers that the majority of those affected will recover without medicine. In order to guard against the stupor which was so exceedingly fatal, in addition to continual conversation, refreshing odours of rose water and aromatic vinegar were held before the patients' nose, in a moderately damp cloth, or their temples were cautiously bathed with them. Convalescents were watched with great care, and it is not the least excellence of this very sterling pamphlet that it likewise combated the timidity of the sick with the inculcation of mild, but manly, religious principles, such as corresponded with the spirit of that age. The rules here

[1] "Vix malevolorum *cachinnos* morsusque præteriit." *Schiller*, Epist. nuncupator, the title which *Gruner*, Script. p. 12, gives to the original work, still existing in the library at Strasburg, and a Latin extract from it. *Gratoroli*, fol. 39.

[2] See the Catalogue in the Appendix, "Ein Regiment," &c.

[3] Any kind of weak beer with the chill off. Warm beer was a beverage in general use in the north of Germany. The beer of *Eimbeck* and *Bernau* was stronger, and was recommended by medical men during the convalescence.

laid down are, in essentials, the original English precepts, which had already broken the force of the epidemic Sweating Sickness in the year 1485, and the author does not conceal his having in this matter received information from Hamburgh, so far back as the 7th of August. That by this mode of treatment not only individual patients[1] were saved, but also that whole cities were protected against any very great mortality, we are willing with the author to believe, and on this account we cannot but lament the more, that the medical science of the rigid schools of those days so completely mistook its office as the guardian of life, and that it caused greater sacrifices by its hazardous remedies than the pestilence would otherwise have occasioned.

How soon the English treatment met with the recognition which it deserved may be gathered from a Latin composition nearly of the same tenour as the above, and which appears to be an extract from some German pamphlets.[2] Besides aromatic odoriferous waters, the very harmless and only remedies therein recommended are pearls and corals given internally by tablespoonfuls in warm rose water. As a prophylactic, treacle, which was in very common use, was recommended to be taken in the juice of roasted onions, but only in very small doses. Similar just views with respect to the excitement of perspiration were also subscribed to by other physicians,[3] and finally the great council at Berne, on the 18th of December, published an exhortation to patience and unshaken courage, in which the use of feather-beds and of all medicines, except cinnamon water, was earnestly deprecated[4] during the disease. The court of Holland also recommended a method of cure[5] apparently English, these two documents being the only traces, on the part of any governments, of a paternal solicitude for their subjects.

The learned and accomplished *Euricius Cordus*,[6] of Marburg, had, when he wrote,[7] no information respecting the successful English mode of treatment, and, with all his celebrity, only followed in the ranks of ordinary advisers. He could not free himself from the medical precepts which he brought from Italy, and

[1] "I had in my house seven lying ill with the same disease, of which, thank God, none died." From the letter of an inhabitant of Hamburgh, given in the same pamphlet, "Ein Regiment," &c.

[2] *Gratorol.* fol. 87. b.

[3] *Gratorol.* fol. 90.

[4] *Stettler*, Part II. p. 33.

[5] *Wagenaar*, op. cit. p. 509.

[6] His proper name was *Henry Spaten* (German *Spät*, in English *late*), whereof *Cordus* (the last born or late-born) seems to have been a translation.

[7] The second of September.

gave to the only patient at Marburg, who was the subject of the Sweating Sickness, the very disagreeable, though much-employed, potion of "Benedetto."[1] His prophylactic ordinances were very burthensome, though with respect to the frequent employment of purgatives, which at that time almost all physicians recommended, it must be taken into account, that the intemperance, so prevalent in those days, rendered them in general more necessary, perhaps, than they are at the present time. Bishop Ditmar of Merseburg has betrayed to posterity, that this celebrated man had a great dread of the new disorder, and did not conceal his anxiety.[2]

There is still extant a very complicated prescription of *Achilles Gasser*,[3] the learned physician of Augsburg, which he employed with childish confidence[4] during the prevalence of the sweating pestilence. We might class this with a thousand others of a similar character, were it not evident how little medical art, at that time in its ancient Greek garb, was suited to the exigency of the age, being dull, inefficient, and long since robbed of its original spirit; for thus alone was it taught in the universities.

In the copious epistle of Simon Riquinus to the Count of Newenar at Cologne,[5] traces of better principles are indeed observable, which were soon disseminated from Hamburgh all over Germany, yet the prophylactic measures recommended are not much better than those in use in the time of the Emperor Antoninus, when the Theriaca of Andromachus was among the necessaries at the Roman court. Riquinus incidentally tells a story of a peasant in the neighbourhood of Cleve, who, having become affected by the English Sweating Sickness, crept as quickly as he could into a baker's oven that was still hot, and after some time again made his appearance in an exhausted state.[6] This very circumstance

[1] ℞ Pulveris cardiaci (very complex, containing precious stones and many other ingredients), ʒij; Pulveris cornu cervi ʒj; Seminis Santonici, Myrrhæ, aā ʒß. ℳ. ft. Pulv. Sum^{t}. ʒj; in warm wine-vinegar.

[2] Chronicle, p. 473.

[3] Born 1505; died 1577.

[4] It is the *Electuarium liberans Gasseri*:—℞ Spec. liberant. Galen, Spec. de gemm. aā ʒj, Pulveris Dictamn., Tormentill, Serpentinæ, aā ℈iv, Pimpinell. Zedoariæ. aā ʒß, Bol. Armen. lot.; Terr. sigillat. aā ℈ij Rasur. Cornu cervin. ℈j, Zingiber. ʒß, Conserv. Rosar, rec. ℥ß, Theriac. veteris ℥j, Syrup. acetositatis citri. q. s. ut ft. electuar. spiss.—Velsch, p. 19.—*Gasser* states in his Augsburg Chronicle, that there were more than 3000 cases of the disease there, but that not more than 600 died. See *Mencken*, Scriptores rerum Germanicarum.

[5] *Gratorol.* fol. 74. b.

[6] *Gratorol.* fol. 85. Probably this epistle does not differ essentially from the Latin work of this author on the sweating fever which appeared separately. (De ἱδροπυρετοῦ, seu sudatoriæ febris curatione Liber. Coloniæ, 1529. 4.)

proves that the man laboured under only an imaginary and not a real sweating fever, but the belief that the bread which was afterwards baked in this oven was infected with the poison, can only be attributed to the credulity of the learned physician.

The Count of Newenar[1] expresses himself on the subject of the sweating fever, like a person well informed, and not unacquainted with medical subjects, and endeavours to prove the critical nature of the sweat by the frequent practice of the empyrics, to throw persons afflicted with the plague, at the very beginning of the attack, into a profuse perspiration.[2] He takes the opportunity to relate of an unprincipled physician, that he freed himself in this manner from the plague, in a public bath, while those who came after him became every one of them affected with the disease, and died. According to his account, the English Sweating Sickness was by no means fatal in and about Cologne,[3] yet we find it with all its original malignity on the banks of the Scheldt, and in the maritime towns of the Netherlands.

This plainly appears from the pamphlet of a physician in great practice at Ghent, Tertius Damianus, from Vissenaecken, near Tirlemont,[4] whose own wife fell sick of the sweating fever, and fortunately was again restored.[5] The cases whereof Damianus gives an account, are among the most marked of which any mention is made, and it also seems that the disease, contrary to the opinion of many, arose from fear alone, and manifested in the Netherlands a much greater power of contagion than in Germany, to which the hot treatment may have contributed.[6] The manner in which Damianus restrained his patients from indulging in their propensity to sleep, is worthy of notice. When the usual means failed, he directed that their hair should be torn out, that their limbs should be tied together in painful positions, and that vinegar should be dropped into their eyes:[7] the danger justified these means, but violence does not easily attain its end. For the rest, the views of this physician do not differ from those commonly entertained, and if he complains[8] of the great extortions of the apothecaries, this was a natural effect of the customary prescriptions, whereof he himself recommends many that are very objectionable.

[1] *Gratorol.* fol. 64. [2] *Gratorol.* fol. 69. b.

[3] Videmus, quam multi de sudore convalescant, fol. 66. a.

[4] This town is called in Flemish Tienen (Thenæ in Montibus), translated by *Damianus* Decicopolis. [5] Fol. 117. a. [6] Fol. 109. a. [7] Fol. 116. b.

[8] Fol. 118. a. *Damianus* wrote his, by no means unimportant, treatise during the prevalence of the epidemic sweating fever in Ghent.

Whatever the science of medicine of the sixteenth century could oppose to so fearful an enemy, is set forth in the very excellent treatise of *Joachim Schiller*[1] of Frieburg, which, however, did not appear until two years later, and unfortunately does not give the wished-for information on the development of the pestilence in the Briesgau. Schiller is moderate in his views, and shows throughout, that he is a very well-informed physician, and well versed in Greek literature; and although he cannot steer clear of the rubbish of clumsy remedies, yet the fault should not be charged on him, but on the age in which he lived. This, like every other, had its evils, and enveloped in clouds and darkness the genius of medicine, which, free, great, and elevated above human short-sightedness, is respected only by the intellectual servants of nature.

Sect. 12.—Form of the Disease.

The notions of the contemporary writers respecting the phenomena and the course of the sweating epidemic are, it is true, individually unsatisfactory and defective;[2] yet, collectively, we may gather from them a lively and complete picture of its effect on the human frame; especially from the German observers, who reported truly and honestly their own, as well as the general experience of their age; for the English had up to that period described little more than the external appearances of this epidemic, which had already attacked them for the fourth time.

It is ascertained that the *Sweating Fever was in general very inflammatory;* and, leaving out of the account its sequel, *came to a crisis at most in four and twenty hours;* yet within this narrow limit as to time, very various symptoms occurred,[3] so that by a more exact observation than could be expected from the physicians of those days, several gradations of its development and violence might have been distinguished from each other. Thus one form of this disease appeared that was wanting in precisely that symptom which was the most essential, namely, the colliquative sweating[4] (as in the most dangerous form of cholera, neither

[1] He styles himself *Schiller von Herderen*, from an estate in the village of that name close to Freiburg.

[2] *Schiller* says with great naïveté, "that the symptoms of the disease are evident, and that those which he has not indicated must be imagined." Sect. II. c. 1. fol. 206.

[3] "Habet inconstantes notas morbus." *Schiller.* "Diversos diversimode adoritur." *Damian.* fol. 115. b.

[4] See above, the remedium, p. 248, note [4]. Sudoris absentia plurimum nocebat. —*Forest.* p. 158. Schol.

vomiting nor purging takes place), and which, by its overpowering attack, either destroyed life within a few hours, or perhaps took some other turn of a nature unknown to us.

Premonitory symptoms were wanting altogether, unless we may reckon as such, first, an anguish, combined with palpitation of the heart, which may not have been of corporeal origin, but may have proceeded from the general alarm; or secondly, an irresistible sinking of the powers resembling a swoon, which, perhaps, preceded the disorder, in the same manner as it had preceded the general eruption of the plague in northern Germany:[1] or thirdly, rheumatic pains of various kinds, which were frequently felt in the summer of 1529;[2] or finally, a disagreeable taste in the mouth and foul breath, which were very commonly the subject of complaint at that time.[3]

In most instances the disease set in like the generality of fevers, with a *short shivering fit*[4] and trembling, which in very malignant cases even passed into convulsions of the extremities;[5] in many it began with a moderate and constantly increasing heat,[6] either without any evident occasion, even in the midst of sleep, so that the patients on waking lay in a state of perspiration, or from a state of intoxication, and during hard work,[7] especially in the morning at sunrise.[8] Many patients experienced at the commencement a disagreeable *creeping sensation* or *formication on their hands and feet*,[9] which passed into pricking pains, and an exceedingly *painful sensation under the nails*. At times likewise it was combined with rheumatic cramps, and with such a weariness in the upper part of the body, that the sufferers were totally incapable of raising their arms.[10] Some were seen during these attacks, especially women and those who were weak, with their hands and feet swollen.[11]

Serious affections of the brain quickly followed; many fell into a state of violent feverish delirium,[12] and these generally died.[13]

[1] See above, p. 227. *Klemzen*, p. 254.

[2] *Bayer*, cap. 6. *M. Hundt*, fol. 5. a.

[3] *Bayer*, loc. cit.

[4] *Angelus*, p. 319. *Schiller*, *Stettler*, locis cit.: and many others.

[5] *Damian*. fol. 115. b.

[6] *Schiller*, loc. cit.

[7] The Regimen of Wittenberg.

[8] *Damian*. fol. 115. b.

[9] *Klemzen*, p. 255.

[10] "Ungues potissimum excruciat, alas ita comprimit, ut etiam si velis, non posses attollere." *Forest*. p. 157. Schol. "In extremitatibus puncturis retorquentur dolorosis—extremitates obstupefiunt, dolet orificium ventriculi, nervorum contractiones nascuntur, plantarum pedumque dolores."—*Damian*. fol. 116. a.

[11] *Damian*. loc. cit.

[12] *Klemzen*, loc. cit.

[13] "Nec quenquam vidimus ita delirantem restitutum incolumitati."—*Damian*. fol. 116. a.

All complained of obscure *pain in the head;*[1] and it was not long before an alarming *lethargy* supervened,[2] which, if it was not firmly resisted, led to inevitable death by apoplexy. Thus the unconscious sufferers were, at least, relieved from the pain of separation from their friends, which would have been much more distressing to them in this than in any other complaint, since they lay, as it were, in a stinking swamp, tortured with suffering.

This mortal anguish accompanied them so long as they were in possession of their senses, throughout the whole disease.[3] *In many the countenance was bloated and livid,* or at least the lips and cavities of the eyes were of a leaden tint; whence it evidently appears, that the passage of the blood through the lungs was obstructed in the same way as in violent asthma;[4] *hence they breathed with great difficulty,* as if their lungs were seized with a violent spasm or incipient paralysis; at the same time, *the heart trembled and palpitated* constantly under the oppressive feeling of inward burning, which, in the most malignant cases, flew to the head, and excited fatal delirium.[5] In the course of a short time, and in many cases at the very commencement, the *stinking sweat* broke out in streams over the whole body, either proving salutary when life was able to obtain the mastery over the disease, or prejudicial when it was subdued by it—as is the case in every ineffectual effort of nature to produce a cure. And in this respect, as in diseases of less importance, great differences appeared according to the constitution of the patient; for some perspired very easily, others, on the contrary, with great difficulty, especially the phlegmatic, who, in consequence, were threatened with the greatest danger.[6]

In this severe struggle the *spinal marrow* was sometimes, at a later stage, so much affected, that even *convulsions* came on; and it happened not unfrequently, that, in consequence of the constriction of the chest, the stomach indicated its excited condition by *nausea* and *vomiting.*[7] These symptoms, however, manifested

[1] *Schiller, Stettler.*

[2] Somnolentia et *inevitabilis sopor, Schiller; a deep sleep,* in almost all the chroniclers.

[3] *Schiller.*

[4] "Aliis mox tument manus et pedes, aliis facies, quæ et in pluribus livet; nonnullis sola labia et superciliorum loca: mulieribus etiam inguina inflantur."—*Damian.* fol. 116. a.

[5] "Maximus denique calor haud procul a corde sentitur, qui ad cerebrum devolans delirium adducit, internecionis nuncium."—*Damian.* loc. cit.

[6] *Damian.* loc. cit.

[7] *Schiller,* loc. cit.

themselves principally in those who were attacked with the disease upon a full stomach.

Such is the testimony of the contemporary writers of 1529, to whose accounts but little is added by Kaye, an English eye-witness of the epidemic Sweating Sickness of 1551. The observations of this perfectly trustworthy physician, so far as they relate to the form of the disorder, may be here annexed, since no essential differences between the diseases on these two occasions can be discovered. At the first onset the diseases in some attacked the neck or shoulders, and in others one leg or one arm, with dragging pains;[1] others felt at the same time a warm glow that spread itself over the limbs, immediately after which, without any visible cause, the perspiration broke out accompanied by constant and increasing heat of the inward parts, gradually extending towards the surface. The patients suffered from a very *quick and irritable pulse*[2] and great thirst, and threw themselves about in the utmost restlessness. Under the violent headache which they suffered, they frequently fell into a talkative state of wandering, yet this did not generally happen before the ninth hour, and in very various gradations of mental aberration,[3] after which the drowsiness commenced. In others the sweating was longer delayed, while, in the mean time, a slight rigor of the limbs existed: it then broke out profusely, but did not always trickle down the skin in equal abundance, but alternately, sometimes more, sometimes less. It was thick and of various colours, but in all cases of a very disagreeable odour,[4] which, when it broke out again, after any interruption to its flow, was still more penetrating.[5]

Kaye adds to what we already know of the oppression of the chest, the very important statement that those affected were observed to have a *whining, sighing voice*, whence we have every reason to conclude that there was a serious affection of the eighth pair of nerves. He, moreover, describes a very mild form

[1] "Primo insultu aliis cervices aut scapulas, aliis crus aut brachium *occupavit*," p. 15. *Kaye* does not state what he precisely means by this "occupare." From an analogous more modern observation, it appears, however, that by it are meant tearing rheumatic pains. "Add to this, that the patients complained one and all, some more some less, of a tearing pain in the neck." *Sinner*, p. 10.

[2] Pulsus concitatior, frequentior. The only remark upon the pulse which is to be found in all the writers. *Caius*, p. 16. Probably most of the physicians were afraid of contagion, and on this account omitted to examine the pulse.

[3] Page 252.

[4] Odoris teterrimi. *Tyengius* in *Forest.* p. 158.

[5] *Newenar*, fol. 72. b.

of the disease, such as was prevalent in the south of Germany in 1529. It passed off under proper care, without any danger, in the very short period of *fifteen hours*, and was brought to a termination by moderate heat through the medium of a very gentle perspiration.[1]

It is remarkable that during this violent disorder neither the *activity of the kidneys nor the evacuation by stool was entirely interrupted*, for there passed continually turbid and dark urine, although, as may be conceived, in small quantity and with great uncertainty as to the prognosis; whereupon those physicians who judged by the urine were not a little perplexed.[2] It was observed, too, sometimes in the more easily curable cases, *that patients at the moment when the perspiration broke out upon them passed urine in great quantity*,[3] on which account a French physician proposed to draw off the water in those who suffered from this disease;[4] yet this practice has no higher therapeutical worth than the excitement of perspiration in diabetes or in cholera, and is, moreover, much less practicable. That occasionally diarrhœa supervened, and even to a degree which was not to be restrained, may be gathered from the frequent medical directions as to how it ought to be arrested, which Kaye also repeats.[5] In some patients, likewise, nature appears to have effected a simultaneous crisis by the skin, the kidneys, and the bowels.

Much more important, however, is the observation of a respectable Dutch physician, that *after the perspiration was over* there appeared on the limbs *small vesicles*,[6] which were not confluent, but rendered the skin uneven, and these were not noticed by any other medical observer, but are spoken of by the author of an old Hamburgh chronicle, and, with this addition, that they have been seen on the dead.[7] By these it is very likely that a

[1] Page 190.

[2] *Schiller*, *Kaye*, loc. cit.

[3] —— "cum alvi solutione ac lotii haud modica eiectione, in ea morbi specie, quæ curatum itura est." *Damian.* fol. 116. a.

[4] *Rondelet*, de dignosc. morbis, loc. cit.

[5] To avoid exposure to cold, they preferred allowing the patient to pass his evacuations in bed. Bed-pans were unknown. *Kaye*, p. 110, and most of the other writers.

[6] *Tyengius* in *Forest.* p. 158. b. "Febrem sudor finiebat, *post se relinquens* in extremitatibus corporis, *pustulas parvas*, admodum *exasperantes* diversas et malignas secundum humorum malignitatem."

[7] When care was not taken that the hands and feet were kept under the clothes they died, and *their bodies became as black as a coal all over, and were covered with vesicles*, and stunk so, that it was necessary to bury them deep in the earth by reason of the stench. *Staphorst*, Part II. Vol. I. p. 83.

miliary eruption, and perhaps spots also, are to be understood; yet everything militates against the supposition that this phenomenon was constant, or that the Sweating Fever was an eruptive disorder.[1] For in that case, some mention would have been made of it in the numerous accounts of historians, many of whom, doubtless, had themselves seen the disease, and the eruptions would have been more evidently and decidedly formed in the numerous relapses of those who recovered. They certainly indicate a relationship with the miliary fever, but only in so far as that both diseases are of rheumatic origin, and this slight participation in the nature of an eruptive disease would seem to have been observed in the English Sweating Sickness only in perfectly isolated cases. What would have taken place under such an indication had the Sweating Sickness run a longer course, whether, in fact, it might not possibly have passed into a regular miliary fever, is a question unsolved by the past, since even later transitions of this kind have never been observed. The two diseases are, both in their course and their nature, perfectly distinct from each other, and the miliary fever was not developed as an independent epidemic until the following century, under circumstances altogether different, and its more decided precursors are not to be discovered until a period posterior to the five eruptions of the Sweating Sickness.

The powers of the constitution were much shaken by the Sweating Sickness, so that a rapid recovery was observed to take place only in the mildest form of this disease. Those, however, whom it attacked more severely, remained very feeble and powerless for at least a week, and their restoration was but gradual, and effected only by great care and strengthening diet. After the perspiration had passed off, the patient was taken carefully from his bed, cautiously dried in a warm chamber, placed by the fireside, and, as a first restorative, usually fed with egg soup, yet the generality could not entirely get over the effects of the fever for a long time. Those who had recovered could seldom go out so early as the second or third day.[2]

[1] Spots (maculæ quas ronchas (?) vocant), which were on other occasions considered as signs of approaching death, or which did not come out until death had occurred, broke out, after a return of sweating which had been repressed, all over the body of the learned *Margaretha Roper*, the eldest daughter of *Thomas More*, who was the subject of sweating fever in 1517 or 1528, and recovered. *Th. Stapleton*, Vita et obitus Thomæ Mori, c. 6. p. 26. See *Mori* Opera.

[2] And certainly only after very appropriate and careful treatment. See the Wittenberg Regimen, *Kaye*, loc. cit. *Schmidt*, p. 307, and *Klemzen*, p. 256.

Those patients were placed in still greater danger *in whom the perspiration was in any way suppressed:* most of them were consigned to inevitable death (the popular voice ever since the year 1485 confirms this). Over those, however, in whom the powers of life were roused to a renewed effort, there broke out, after a short period, a new perspiration far more offensive than the first; so that the body dripped as it were with a foul fluid, and it seemed as if the inward parts wanted to disburthen themselves at once of their putridity by an immoderate effort.[1] It is clear that this repetition of the attack must have been destructive to many who, had it not been for an obstruction of the crisis, would have been saved; for nothing is more dangerous in inflammatory diseases than when those secretions are interrupted which Nature has ordained as the only means of relief.

Relapses were frequent, because convalescents, after the disease was subdued, remained for a long time very excitable. These were seen for the *third and fourth time seized with the Sweating Sickness*,[2] nay, later writers notice *a repetition of the disease even to the twelfth time*,[3] whereby at least the health was completely shattered, for dropsy or some other destructive sequelæ supervened, until death put a period to incurable sufferings, and it is important to observe that even the bowels participated in the great excitability of the system, for *too early an exposure to the air easily brought on diarrhœa*.[4]

How great the decomposition of the organic matter was is convincingly proved from all the testimony hitherto adduced, but it might have been inferred from the very rapid putrefaction of the body, which rendered it necessary everywhere to use the greatest despatch in the performance of burials;[5] and fortunately did away with all fear of being buried alive. Of post mortem examinations we have no information, and even if they could have been instituted, they would, from the manner of conducting researches in those times, scarcely have thrown any important light on the disease. Hardly any physicians but those who had studied in Italy knew the inward structure of the body from their own observation, superficial as it was; the rest learned it only from Galenic manuals; how could they with such slender knowledge have dis-

[1] *Newenar*, fol. 72. b.

[2] *Erasm.* Epist. L. XXVI. Ep. 58. p. 1477. b. "Et crebro quos reliquit brevi intervallo repetens, nec id semel, sed bis, ter, quater, donec in hydropem aut aliud morbi genus versus, tandem extinguat miseris excarnificatum modis."

[3] *Kaye*, p. 110.

[4] Idem. p. 113.

[5] *Staphorst*, Part II. Vol. I. p. 83.

tinguished between healthy and diseased parts? Moreover, the Sweating Sickness could not in so short a period cause such a palpable and substantial destruction of the viscera as they would alone have sought for. Details respecting the condition of the blood in the dead body, which after such an enormous loss of watery fluid, such severe oppression at the chest, and so great an impediment to the function of respiration, would in all probability be thickened and darkened in colour, as well as respecting the condition of the lungs and of the heart, it would be highly desirable to obtain; but these likewise are wanting altogether, and after the lapse of so long a period there only remains room for conjectures.

The observation was repeated in Germany which had been so frequently made since the year 1485, that the middle period of life was especially exposed to the Sweating Fever. Children, on the contrary, remained almost entirely exempt from this disease, and when the aged were affected by it, it was as individual exceptions to a general rule,[1] and this, as it would appear, only during the height of the epidemic; as for example at Zwickau, where a woman of 112 years of age was carried off by it.[2] We have already in part discovered the cause of this perfectly constant phenomenon in the luxurious mode of living of robust young men, and if we look back to the moral condition of the Germans in the 16th century, we find among them the same immoderate luxury as among the English, the same drunkenness, the same intemperance at their frequent banquets, where the wine-cups and beer-jugs were emptied with but too eager draughts; finally, also, the same relaxation of skin consequent upon the use of warm baths and warm clothing. All contemporary writers mention these circumstances,[3] and our bold forefathers, with respect to these matters, were not in the best repute with their southern neighbours.

But we have, moreover, to survey the disease in another point of view, namely, in relation to its peculiar character. In the outset we designated the *Sweating Sickness as a rheumatic fever*, and if we take the notion of a rheumatic affection, as in propriety we ought, in its widest acceptation, weighty and convincing grounds

[1] "Immunes erant pueri et senes ab hoc malo." *Ditmar*, p. 473. "Pueri infra decem annos rarissime hac febre corripiuntur." *Newenar*, fol. 72. a. "Senibus solis quandoque pepercit,—præternavigavit etiam magna ex parte atrabilarios et emaciatos corpore, quoniam et horum corpora putris succi expertia erant." *Schiller*, fol. 4. a.

[2] *Schmidt*, p. 307.

[3] As for instance, *Schiller*, to name but one among thousands. "Juvit etiam auxitque malum frequens multaque crapula, et in potationibus otiosa vita nostra," fol. 3. b.

have been adduced in the course of our whole inquiry in confirmation of this view. When we observe that those very nations were visited by the Sweating Fever, which are characterised by a fair skin, blue eyes, and light hair—the marks of the German race, it may with justice be assumed, that even this peculiarity in the structure of the body rendered it susceptible of this extraordinary disease. It is this which causes the proneness to fluxes of all kinds, and which makes these diseases endemic in the north of Europe, whilst the dark-haired southern nations and the blacks in the tropical climates remain, under similar circumstances,[1] more free from them. If it be remembered further how overcharged with water were the lower strata of the atmosphere in which the pestilent Sweating Fevers existed, what thick and even offensive mists prepared the way for the disease and indicated its approach, what rapid alternations of freezing cold and excessive heat took place in the summer of 1529; and, moreover, how frequent all kinds of fluxes were in this very year, the complete form of the rheumatic constitution will be recognised in every individual feature.

Did we possess in the showy systems of modern times a maturer knowledge of the electricity of living bodies, much light would of necessity hence be thrown on the great object of our research. We should not then be compelled to rest satisfied with the fact that a cloudy atmosphere abstracts electricity from the body, robs the skin and lungs of their electrical atmosphere, disturbs their mutual electrical relation with the external world, and by this disturbance prepares the body for rheumatic indisposition, with all that peculiar decomposition of the fluids, irritable tension of the nerves, fever, and painful affection of particular parts, with which it is accompanied. If this disturbance be represented according to certain new and inviting hypotheses, supported by some important facts,[2] as being perhaps an accumulation of electricity in

[1] Let it be observed *under similar circumstances*. It ought not to be affirmed that they are free from rheumatic diseases, but only that they are less disposed to be affected by them.

[2] That *a rheumatic state makes the body an isolator*, *A. von. Humboldt* discovered as early as 1793, and he found that the observation was confirmed by subsequent experiments. "I have observed in myself that, when labouring under a severe attack of catarrhal fever, I was unable, by the most powerful metals, to excite the galvanic flash before my eyes; that I interrupted every connecting link between the muscular and nervous apparatus. As the rheumatic malady lessens the irritability of organs, so also it seems to diminish their conducting power. How is this? As yet nothing is known about it. I have every now and then met with isolating persons who were in perfect health, but can we not yet, amidst such an ocean of uncertainty, discover a condition

the interior of the body, owing to a morbid, isolating activity of the skin, we may expect a more perfect knowledge of the nature of rheumatism through the medium of future diligent researches; and until these be made, some evident signs of connexion between rheumatic affections and the English Sweating Sickness will perhaps be sufficient to demonstrate the rheumatic nature of this latter disease.

In the first place, the very great *susceptibility of those affected with the Sweating Fever to every change of temperature*—the decidedly great danger of chill. In no known disease does this irritability of the skin show itself in so prominent a degree as in rheumatic fevers and in those non-febrile fluxes in which there even exists a very evident sensitiveness to *metallic* action.

Secondly, *The tendency of the rheumatic diathesis to come to a crisis through the medium of a profuse, sour, and offensive perspiration* without any assistance from art.[1] The English Sweating Sickness manifests this commotion of the organism in the most exquisite form hitherto known; for it admits of no kind of doubt that the sweat in this disease was of itself, and in itself, critical, in the fullest acceptation of the term.

Thirdly, *The peculiar alteration in the fundamental composition of organic matter* in rheumatic diseases, in consequence of which volatile acids of a strange odour are prevalent in the sweat, and urine, and animal excretions. The English Sweating Sickness exhibits also this result of morbid activity in a greater and more striking manner than any other disease. Nor can we regard the tendency to putridity, which has been observed, as anything but an increased degree of this condition.

Fourthly, *The shooting pains in the limbs*, the most decided sign of rheumatism, were not wanting in the English Sweating Sickness; nay, they became developed even to the extent of an incipient paralysis, and even the convulsions of those affected with this disease may not unjustly be attributed to the same source.

Fifthly, *The tendency of rheumatism when it takes an unfavourable course to pass into regular dropsy*, which is a consequence of the peculiar decomposition, manifested itself in the Sweating Fever in so marked a manner that the dropsy itself gradually destroyed the patient.

by which we may determine every case?" *Versuche in* Vol. I. p. 159. *Pfaff* believes that, during the existence of rheumatic diseases, the proper electricity of the body sinks down to nothing. See his Essay on the peculiar Electricity of the Human Body in *Mechel's* Archiv. Vol. III. No. 2. p. 161.

[1] The author has at times made extraordinary experiments of this kind upon himself.

Should the sceptical still need another link in the comparison, we may adduce the miliary fever, a disease of decidedly rheumatic character. We must not, however, take as our standard the degenerate forms of miliary fever existing in modern times, but those grand and fully developed forms of the disease which occurred in the 17th and 18th centuries, and in which we find a similar odour in the perspiration, the same oppression, and the same inexpressible anguish, with palpitation and restlessness. The arms became enfeebled as if seized with paralysis, violent pains of the limbs set in, and unpleasant pricking sensations in the fingers and toes, resembling in all these particulars the Sweating Sickness, only pursuing a more lengthened and irregular course, and becoming developed altogether in a different manner.

According to this representation, the English Sweating Sickness appears as a rheumatic fever in the most exquisite form that has ever yet been seen in the world, violently affecting the vitality of the brain and spinal marrow with their nerves, without, however, at all molesting the plexuses of the abdomen. *The immoderate excretion of watery fluid,* which in the mild cases alone took place, through a spontaneous curative power, while in the malignant forms it betokened paralysis of the vessels and an actual colliquation, directs our attention further to the *consequent state of inanition,* which very probably passed into a *stagnation of the circulation,* in the same manner as takes place after every other sudden loss of the fluids, whether from sanguineous effusion or evacuations by vomit and stool. Hence the uncommonly rapid course of the disease, and partly, too, the fatal stupor;[1] hence, likewise, the very pardonable misconception with respect to the nature of the Sweating Fever existing even in more modern times. The sequela was more important and more fatal than the original rheumatic affection itself, which in its minor forms was mild and easily managed.

And thus is explained the wonderfully fortunate result of the old English treatment, which prevented this sequela, and avoided increasing the already too powerful efforts of nature to effect a cure. We have, therefore, nothing further to add to this judicious and truly scientific practice but our unqualified approbation; *for it is the part of the physician, in diseases which have a spontaneous power of curing themselves, to leave this power free scope to act,*

[1] This phenomenon may justly be compared with the very similar but more enduring morbid sequelæ of cholera. Paralysis and a repletion of the returning vessels must be regarded in the same light in both.

and merely by fostering care to remove all obstacles to its exercise. Should it be the destiny of mankind to be again visited by the disease of the sixteenth century (and it is by no means impossible that at some time or other similar events may recur), we would recommend our posterity to bear in mind this eternal truth, and to treasure up the golden words of the Wittenberg pamphlet, namely, to guard the healing art from strange and unnatural farragos, *for it is only when it is subordinate to nature that it bears the stamp of reason—the mistress of all earthly things.*

CHAPTER V.

FIFTH VISITATION OF THE DISEASE.

"Ubique lugubris erat lamentatio, fletus mœrens, acerbus luctus."—KAYE.

SECT. 1.—IRRUPTION.

FULL three and twenty years had now elapsed; no trace of the Sweating Sickness had shown itself anywhere in this long interval, and England had by its rapid advancement assumed quite another aspect,[1] when the old enemy of that people again, and for the last time, burst forth in Shrewsbury, the capital of Shropshire.[2] Here, during the spring, there arose impenetrable fogs from the banks of the Severn, which, from their unusually bad odour, led to a fear of their injurious consequences.[3] It was not long before the Sweating Sickness suddenly broke out on the 15th of April. To many it was entirely unknown or but obscurely recollected; for, amidst the commotions of Henry's reign, the old malady had long since been forgotten.

The visitation was so very general in Shrewsbury and the places in its neighbourhood, that every one must have believed that the atmosphere was poisoned, for no caution availed, no closing of the doors and windows, every individual dwelling became an hospital, and the aged and the young, who could contribute nothing towards the care of their relatives, alone remained unaffected by the pestilence.[4] The disease came as unexpectedly and as completely without all warning as it had ever

[1] After *Henry* VIIIth's death in 1547, *Edward* VI., who was only nine years old, came to the throne. He died in 1553.

[2] *Caius*, p. 2.

[3] Ibid. p. 28.

[4] *Godwyn*, p. 142. *Stow*, p. 1023.

done on former occasions; at table, during sleep, on journeys, in the midst of amusement, and at all times of the day; and so little had it lost of its old malignity, that in a few hours it summoned some of its victims from the ranks of the living, and even destroyed others in less than one.[1] *Four and twenty hours*, neither more nor less, *were decisive as to the event;* the disease had thus undergone no change.

In proportion as the pestilence increased in its baneful violence, the condition of the people became more and more miserable and forlorn; the townspeople fled to the country, the peasants to the towns; some sought lonely places of refuge, others shut themselves up in their houses. Ireland and Scotland received crowds of the fugitives. Others embarked for France or the Netherlands; but security was nowhere to be found; so that people at last resigned themselves to that fate which had so long and heavily oppressed the country. Women ran about negligently clad, as if they had lost their senses, and filled the streets with lamentations and loud prayers; all business was at a stand; no one thought of his daily occupations, and the funeral bells tolled day and night, as if all the living ought to be reminded of their near and inevitable end.[2] There died, within a few days, nine hundred and sixty of the inhabitants of Shrewsbury, the greater part of them robust men and heads of families; from which circumstance we may judge of the profound sorrow that was felt in this city.

Sect. 2.—Extension and Duration.

The epidemic spread itself rapidly over all England, as far as the Scottish borders, and on all sides to the sea-coasts, under more extraordinary and memorable phenomena than had been observed in almost any other epidemic. In fact, it seemed that *the banks of the Severn were the focus of the malady*, and that from hence, a true impestation of the atmosphere was diffused in every direction. Whithersoever the winds wafted the stinking mist, the inhabitants became infected with the Sweating Sickness, and, more or less, the same scenes of horror and of affliction which had occurred in Shrewsbury were repeated. These poisonous clouds of mist were observed moving from place to place, with the disease in their train, affecting one town after another, and morning and evening spreading their nauseating insufferable stench.[3] At

[1] *Caius*, p. 3. [2] Ibid. p. 7.

[3] "Which miste in the countrie wher it began, was sene flie from toune to toune,

greater distances, these clouds, being dispersed by the wind, became gradually attenuated, yet their dispersion set no bounds to the pestilence, and it was as if they had imparted to the lower strata of the atmosphere a kind of ferment which went on engendering itself, even without the presence of the thick misty vapour, and being received into men's lungs, produced the frightful disease everywhere.[1] Noxious exhalations from dung-pits, stagnant waters, swamps, impure canals, and the odour of foul rushes, which were in general use in the dwellings in England, together with all kinds of offensive rubbish, seemed not a little to contribute to it; and it was remarked universally, that wherever such offensive odours prevailed, the Sweating Sickness appeared more malignant.[2] It is a known fact, that in a certain state of the atmosphere, which is perhaps principally dependent on electrical conditions and the degree of heat, mephitic odours exhale more easily and powerfully. To the quality of the air at that time prevalent in England, this peculiarity may certainly be attributed, although it must be confessed, that upon this point there are no accurate data to be discovered.

The disease lasted upon the whole almost half a year, namely, *from the* 15*th of April to the* 30*th of September;*[3] it thus passed but gradually from place to place, and we do not observe here, that it spread with that rapidity which, in the autumn of 1529, had excited such great wonder in Germany. It is much to be regretted, that contemporary writers either gave no intelligence respecting the irruption or course of the epidemic Sweating Sickness in individual towns, or, if they did so, that this has not been made use of by subsequent writers. Doubtless, a very considerable diversity of circumstances would here present themselves, and the very peculiar manner in which the corruption of the atmosphere spread on this occasion, might perhaps have been estimated from certain facts, and not from mere suppositions. Thus the only fact that has been handed down is very remarkable; namely, that the Sweating Sickness required a whole quarter of a year to traverse the short distance from Shrewsbury

with suche a stincke in morninges and evenings, that men could scarcely abide it."—*Kaye*. See Appendix, also Lat. edit. pp. 28, 29. It is to be remarked here, that in the year 1529, *Damianus* observed in Ghent, that more people sickened in the morning at sun-rise than at any other time. p. 115. b.

[1] *Hosack* admits in cases of this kind, a "*fermentative or assimilating process*" in the atmosphere. T. 1. p. 312. Laws of Contagion. *Lucretius* had already expressed the same thought in poetry. L. VI. v. 1118. to 1123.

[2] *Caius*, p. 29.

[3] Ibid. pp. 2—8.

to London ; for it did not break out there until the 9th of July, and in a few days, according to its former mode, reached its height, so that the rapid increase of deaths excited terror throughout the whole city.[1] Yet the mortality was considerably less than at Shrewsbury, for there died in the whole of the first week only eight hundred inhabitants,[2] and we may consider it decided, although all the contemporaries are silent on this very essential question, that the pestilence nowhere lasted longer than fifteen days, and perhaps in most places, as formerly, only five or six.

The deaths throughout the kingdom were very numerous, so that one historian actually calls it a depopulation.[3] No rank of life remained exempt, but the Sweating Sickness raged with equal violence in the foul huts of the poor and in the palaces of the nobility.[4] The piety which, in the general dejection, was displayed by the whole nation, giving birth to innumerable works of Christian benevolence and philanthropy, whereby undoubtedly many tears were dried up—many orphans and widows protected from distress and want, is hence explained : for this phenomenon, highly delightful as it is in itself, occurs only under great afflictions and a general fear of death, as we are taught by the universal history of epidemics. We are willing to believe, to the honour of the English, that the religious impulse which they derived from their ecclesiastical reformation, may have had no small share in its production ; yet, unfortunately, such is the nature of human society, that no sooner is the calamity over, than virtue relaxes. Scarcely were the funeral obsequies performed, when everything returned to the usual routine;[5] in like manner, the Byzantines once, during a great earthquake, were seized with a fear of God, such as they had never before felt ; day and night they flocked to the churches ; nothing was to be seen but Christian virtue, self-denial, and works of benevolence, but these only lasted until the earth again became firm.[6]

The very remarkable observation was made in this year, *that the Sweating Sickness uniformly spared foreigners in England, and, on the other hand, followed the English into foreign countries*, so that those who were in the Netherlands and France, and even in

[1] *Holinshed*, p. 1031, and others. [2] *Stow*, p. 1023. *Baker*, p. 332.

[3] *Godwyn*, p. 142.

[4] Among others, the Duke of *Suffolk* and his brother. *Godwyn*, loc. cit.

[5] "And the same being whote and terrible, inforced the people greatly to call upon God and to do many deedes of charity : but *as the disease ceased, so the devotion quickly decayed*." *Grafton*, p. 525.

[6] History of Medicine, Vol. II. p. 136.

Spain, were carried off in no inconsiderable numbers by their indigenous pestilence, which was nowhere caught by the natives.

Not a single French inhabitant[1] of the neighbouring town of Calais was affected, and neither the Scotch inhabitants of the same island, nor the Irish, were visited by the Sweating Sickness, so that we cannot get rid of the notion, that there was some peculiarity in the whole constitution of the English which rendered them exclusively susceptible of this disease. To make this out accurately would be so much the more difficult, because, in the original year of the Sweating Sickness, foreigners were the very persons among whom the English disease first broke out; and again, because English persons who had lived a year in France, on their return home in the summer of 1551, became the subjects of Sweating Sickness.[2] Contemporaries, indeed, find a cause in the gluttony and rude mode of life of the English. In short, in all those remote causes with which we have already become acquainted, and which, doubtless, also had their part in preparing the same scourge for the Germans and Flemings in 1529. Kaye, the most efficient eye-witness, even brings in proof of this view, that the temperate in England remained exempt from the Sweating Sickness, and on the contrary, that some Frenchmen at Calais, who were too much devoted to English manners, were seized with it.[3] To this alone, however, this susceptibility cannot be attributed, unless we would be content with the antiquated system of giving too much weight to remote causes, opposed to which we are met by the striking fact, that the Germans and Netherlands, who had scarcely much improved in their manners since 1529, were not again visited by their old enemy.

Sect. 3.—Causes.—Natural Phenomena.

It is easy to perceive, or rather we have no alternative but to suppose, an unknown something in the English atmosphere, which imparted to the inhabitants the rheumatic diathesis, or, if we will,

[1] *Caius*, p. 30, and at other places quoted. "And it so folowed the Englishmen, that such marchants of England, as were in Flaunders and Spaine, and other countries beyond the sea, were visited therewithall, and none other nation infected therewith." *Grafton*, loc. cit. Compare, *Baker*, p. 332. *Holinshed*, p. 1031.

[2] *Caius*, p. 48.

[3] See Appendix, "these thre contryes (England, the Netherlands, and Germany) whiche destroy more meates and drynckes without al order, convenient time, reason, or necessitie then either Scotlande, or all other countries under the sunne, to the great annoiance of their owne bodies and wittes," &c. Compare p. 46 of the Lat. edit.

so penetrated their bodies, overcharged as they were with crude juices,[1] that their constitutions had the so-called *opportunity*, that is, were changed in such a manner as to fit them for the reception of the Sweating Sickness. Under such a condition, the common and more peculiar causes of this disease were not absolutely necessary, in order to induce its attack in a constitution thus long prepared for it, but the general causes of disease were sufficient of themselves to give it its last stimulus, although this should be in an entirely different climate, as in the present instance was the case with the English who were living in Spain, and with the Venetian ambassador *Naugerio*, who, in the year 1528, fell ill of the petechial fever, when far from Italy, and living in France.[2]

It has, no doubt, struck the reader that each of the five eruptions in England lasted much longer than the single one which occurred in Germany and the north of Europe. This, too, might well depend upon peculiarities in the English soil. But let us now endeavour to render manifest, by means of phenomena actually observed, that unknown something in the atmosphere of 1551, the θεῖον of the great Hippocrates, which announces its presence by the sickening of the people; for beyond this it is not granted that human researches should penetrate. The winter of 1550-51 was dry and warm in England; the spring dry and cold; the summer and autumn hot and moist.[3] The weather of the whole year was uncommon in many particulars, without, however, influencing the lives of plants and animals so much or through so great a range as at the time of the fourth epidemic Sweating Sickness. It was even in some places praised as fruitful.[4] On the 10th of January a violent tempest occurred, which in Germany left no small traces[5] of its effects on houses and towers. The same day brought considerable floods in the river district of the Lahn, which must be noticed on account of the very unusual season of the year.[6] On the 13th of January, again at an unusual season, there followed a great storm with heavy rains,[7] which spread over the north of Germany; and on the 28th of January there occurred a considerable earthquake in Lisbon, whereby about two hundred houses were overthrown, and nearly a thousand people were de-

[1] *Godwyn*, loc. cit., expressly assures us, that gluttons who were taken with the disease when their stomachs were full, fell victims to it; and *Kaye* states that besides aged persons and children, the poor, who from necessity lived frugally, and endured hardships, either remained free, or bore the disease more easily. p. 51.

[2] See above, p. 215.

[3] *Caius*. See Appendix.

[4] *Schwelin*, p. 177.

[5] *Spangenberg*, fol. 463. a.

[6] Chron. Chron. p. 401.

[7] Ibid. and *Spangenberg*, loc. cit.

stroyed; whilst a fiery meteor appeared, which, according to the unsatisfactory descriptions of the time, resembled most a northern light, and therefore was, in all probability, of electrical origin.[1] This was succeeded in Germany by a great frost in February.[2] On the 21st of March, at seven o'clock in the morning, two mock suns, with three rainbows, were seen at Magdeburg and in its vicinity, and in the evening two mock moons.[3] The same mock suns were also observed at Wittenberg, but without the rainbows. A similar phenomenon with two rainbows was again seen on the 27th of March;[4] and mock suns had been observed at Antwerp as early as the 28th of February.[5] About the same time (21st of March) the Oder overflowed its banks,[6] and floods followed after continued rains during the month of May in Thuringia and Franconia.[7] Great tempests were not wanting,[8] and, after considerable heat, there occurred, on the 26th of June, a thick summer fog in the districts of the Elbe, which deprived the besiegers of Magdeburg of the sight of that city. It may, therefore, be supposed that this phenomenon took place throughout a greater extent of country.[9] On the 22nd of September a meteor, like a northern light, was again seen, and on the 29th of that month, after some clear weather, a heavy fall of snow was followed by continued cold.[10]

These facts are sufficient plainly to prove that the course of the year 1551 was unusual, that the atmosphere was overcharged with water, and that the electrical conditions of it were considerably disturbed; nor must we omit to notice that, for the first time since 1547, mould spots again appeared in Germany on clothes, and red discolorations of water, as likewise an exuberance of the lowest cryptogamic species of vegetation.[11]

[1] Chron. Chron. loc. cit. [2] *Spangenberg*, fol. 463. b.

[3] *Angelus*, p. 344. *Spangenberg*, fol. 464. a. Chron. Chron. p. 401.

[4] *Spangenberg*, fol. 464. a. [5] Chron. Chron. p. 402.

[6] *Haftitz*, p. 167. *Angelus*, p. 344.

[7] Chron. Chron. p. 403. *Leuthinger*, p. 248. [8] *Angelus*, loc. cit.

[9] *Spangenberg*, fol. 465. a. Magdeburg was besieged at this time for having refused to accept the "Interim."

[10] *Wurstisen*, p. 624. *Spangenberg*, fol. 466. a.

[11] In the March of Brandenburg, crosses, as they were called, were seen upon clothes in the year 1547 (*Leuthinger*, p. 216); red water was seen at Zörbig, in the year 1549 (Ibid. p. 231), and frequently likewise in the year 1551. (Chron. Chron. p. 402.) *Agricola* seems to point to these connected phenomena in the passage already quoted; see p. 191, note [4].

Sect. 4.—Diseases.

During the years of scarcity, from 1528 to 1534, it excited general surprise that malignant fevers, more especially the plague, petechial fever, and encephalitis, which in the individual accounts we can seldom sufficiently distinguish from each other, were constantly recurring, and, creeping slowly as they did from place to place, had no sooner finished their wandering visitations of whole districts of country, than they again made their appearance where they had broken out in former years.[1] It was *a century of putrid malignant affections*, in which typhous diseases were continually prevailing—a century replete with grand phenomena affecting human life in general, and continuing so, long after the period to which our researches refer.

There existed also an epidemic flux, which, during a cold summer[2] in 1538, spread over a great part of Europe, and especially over France, so that, according to the assurance of an eminent physician, there was scarcely any town exempt from it.[3] Of this flux we have unfortunately but very defective reports, among which we find a statement, not without importance, that there were no extraordinary forerunners, such as are observed in phenomena of this kind, to account for this epidemic.[4] Two years earlier, however, (12th of July 1536,) Erasmus died of the flux.[5] This disease seldom occurs sporadically, but usually as an epidemic, and thus, perhaps, slighter visitations of this rheumatic malady may be assumed to have preceded that greater one which took place in 1538.

A period remarkable for plague followed in the year 1540, and ended about 1543. The summer of the first-named year is especially mentioned in the chronicles as having been *hot*, and throughout the whole century it continued to be in great repute on account of the excellent wine it produced.[6] A spontaneous

[1] "Pestis insuper in certis sæviebat Germaniæ provinciis (1533), præsertim Nurenbergæ et Babenbergæ, et villis oppidisque per girum. Et est stupenda res, quod hæc plaga nunquam totaliter cessat, sed omni anno regnat, jam hic, nunc alibi, de loco in locum, de provincia in provinciam migrando, et si recedit aliquamdiu, tamen post paucos annos et circuitum revertitur, et juventutem interim natam in ipso flore pro parte majore amputat."—*Jo. Lange*, Chron. Nuremburgens. eccles., in *Mencken*, T. II. col. 88.

[2] *Spangenberg*, fol. 369. b. [3] *Fernel*, de abditis rerum causis, L. II. p. 107.

[4] See *Fernel*. *Wurstisen* (p. 613), however, states that the preceding winter had been very warm. Thus Aph. 12. sect. III. would hold good.

[5] *Wurstisen*, loc. cit.

[6] L'année des vins rostis, of the French. *Stettler*, p. 119.

conflagration of the woods was frequent, and an earthquake was felt in Germany on the 14th of December.[1] Thereupon, in 1541, there followed in Constantinople a great plague,[2] which, in the year 1542, spread by means of a Turkish invasion into Hungary, its superior importance being indicated by the presence of accompanying phenomena, among which the swarms of locusts that appeared this year are especially worthy of note. They came from the interior of Asia, and travelled in dense masses over Europe, passing northward over the Elbe,[3] and southward as far as Spain.[4] Kaye saw a cloud of locusts of this description in Padua; their passage lasted full two hours, and they extended further than the eye could reach.[5] The plague quickly spread in Hungary, and caused a similar destruction to the imperial army, which was fighting against the Turks under Joachim the Second, Elector of Brandenburg, as it had formerly caused the French before Naples.[6] Whether this pestilence may have been the original oriental glandular plague, or whether we may assume that it had already degenerated into the *Hungarian Petechial Fever*, such as likewise broke out in the year 1566, in the camp near Komorn, during the campaign of Maximilian the Second, and thence, by means of the disbanded lansquenets, spread in all directions,[7] cannot now well be determined for want of ascertained facts. In the following year, 1543, however, this plague broke out in Germany, namely, in the Harz districts in the provinces of the Saale,[8] and still more malignantly at Metz,[9] yet upon the whole it did not cause any considerable loss of life.

In the years 1545 and 1546 we again find the *Trousse-galant* in France.[10] It proved fatal to the Duke of Orleans, second son of Francis the First, in the neighbourhood of Boulogne, and, according to the testimony of French historians, to ten thousand English in that fort, so that the garrison was obliged to pitch a camp outside the town, and the reluctant reinforcements felt that they were encountering certain death.[11] The disease spread itself

[1] *Spangenberg*, fol. 439. a. Chron. Chron. p. 375.

[2] *Kircher*, p. 147.

[3] *Spangenberg*, fol. 439. b.

[4] *Villalba*, T. I. p. 93. They committed great ravages in Spain.

[5] See Appendix, and p. 25 of the Latin edition.—Compare *Haftitz*, p. 149, and others.

[6] *Spangenberg*, fol. 439. b.

[7] *Jordan*, Tr. I. c. 19. p. 220.

[8] *Spangenberg*, fol. 440. b.

[9] *Villalba*, T. I. p. 94. The author has not been able to obtain the Work of *Sixtus Kepser*, an observer of this disease. (Consultatio saluberrima de causis et remediis epidemiæ sive pestiferi morbi Bambergensium civitatem tum infestantis.) Bambergæ, 1544. 4to.

[10] See p. 219.

[11] *Mezeray*, p. 1036.

also among the French troops, and we have seen that it extended its dominion beyond the Alps of Savoy.[1]

It thus appears that, up to the period of which we have been speaking, the year 1544 alone was free from great visitations of disease, but it would be difficult from thenceforth satisfactorily to define the individual groups of epidemics, if the connexion of the epidemic Sweating Sickness of the year 1551 with them is to be made out; for there was, to use an expression of the schools, a continued *typhous constitution*, which extended throughout this whole period, manifesting itself on the slightest causes by malignant diseases; so that the visitations of sickness which we have hitherto been describing do but appear as exacerbations of them, with a predominance sometimes of one and sometimes of another set of symptoms.

The camp fever, which prevailed in the spring of 1547 among the imperial troops, there is good ground for considering to have been petechial. A great many soldiers fell sick of it, and it was so much the more malignant because the imperial army was composed of a variety of soldiery, Spaniards, Germans, Hungarians, and Bohemians. Those who were seized complained, as in encephalitis, of insufferable heat of the head, their eyes were swollen and started glistening from their sockets, their offensive breath poisoned the atmosphere around them, their tongues were covered with a brown crust, they vomited bile, their skin was of a leaden hue, and a deep purple eruption broke forth upon it. The disease, the fresh seeds of which the imperial hussars had brought with them out of Hungary, proved fatal as early as the second or third day, and it may be taken for granted, that both before and after the battle of Muhlberg (24th of April) it made no small ravages in Saxony;[2] yet it did not become general.

After a short interval the unusual phenomena of 1549 again increased; the chronicles of central Germany record blights and murrains in that year. They speak likewise of a northern light seen on the 21st of September, and of a malignant disease which, till the winter set in, carried off young people in no small numbers.[3] According to all appearance this disease was a petechial fever, which in the following year, 1550, likewise visited the March of Brandenburg, Thuringia, and Saxony.[4] The mortality was particularly great at Eisleben, where, in less than four weeks from the 14th of September, 257 fell a sacrifice to it, and after this

[1] See p. 219.
[2] *Thuan.* L. IV. p. 73.
[3] *Spangenberg*, fol. 458. a. b., 459. a.
[4] *Leuthinger*, p. 241.

period it happened often that from twenty to twenty-four bodies were buried in one day; so that the loss in this little town may be reckoned at least at 500.[1] From this slight example the great malignity of the plagues of the sixteenth century will be perceived, and it would be still more evident if the physicians of those times had made more careful observations, and historians had more accurately recorded facts of this kind.

In 1551 there prevailed in Swabia a disease of the nature of plague, which determined the Duke Christoph, of Würtemburg, to withdraw himself from Stuttgard. It did not spread, and seems to have remained unknown to the rest of Germany.[2] In Spain, too, the plague[3] showed itself, and if to this be added the influenza of the same year,[4] as well as the numerous cases of malignant fevers in Germany and Switzerland, which were spoken of as still existing in the two following years,[5] it will again be seen quite evidently that *the fifth epidemic Sweating Sickness appeared accompanied by a group of various epidemic diseases, which might be considered as resulting from general influences.* The disease which is the subject of our research thus took its departure from Europe similarly accompanied as when it originally sprang up there, while in the interval it thrice repeated its deadly attacks.

Sect. 5.—John Kaye.

Let us dedicate a few moments to the observer of the fifth sweating pestilence, whose life presents a lively image of the peculiarities and tendencies of his age. He was born at Norwich on the 6th of October, 1510, and received his education at Gonville Hall, Cambridge. He had early evinced by some productions his great knowledge of the Greek language, and his zeal for theological investigations. At a maturer age he went to Italy, at that time the seat of scientific learning, where *Baptista Montanus* and *Vesalius*, at Padua, initiated him in the healing art. He took his Doctor's degree at Bologna, and in 1542 he lectured on Aristotle in conjunction with Realdus Columbus, with great approbation. The following year he travelled throughout Italy, and with much diligence collated manuscripts for the emendation of Galen and Celsus, attended the prælections of Mat-

[1] *Spangenberg*, fol. 460. a.

[2] *Crusius*, p. 280.

[3] *Villalba*, T. I. p. 95.

[4] See above, p. 205.

[5] *Wurstisen* (1552, pestilential epidemic in Basle), p. 627.—*Spangenberg*, fol. 467, b., 468. a. (Pestilence and Phrenitis.)

thæus Curtius at Pisa, and then returned through France and Germany to his own country.

After being admitted as a doctor of medicine at Cambridge, he practised with great distinction at Shrewsbury and Norwich, but was soon summoned by Henry the Eighth to deliver anatomical lectures to the surgeons in London. He was much honoured at the court of Edward the Sixth, and the appointment of body physician, which this monarch bestowed on him, he retained also under Queen Mary and Elizabeth. In 1547, he became a Fellow of the College of Physicians, over which, at a later period, he presided for seven years. He constantly supported the honour of this body with great zeal, compiled its Annals from the period of its foundation by Linacre to the end of his own presidentship, and originated an establishment, the first of the kind in England,[1] for annually performing two public dissections of human bodies.

That he was thus established in London before the year 1551 is certain, yet he was present in Shrewsbury during the Sweating Sickness. His pamphlet[2] upon this disease, the first and last published in England, did not, however, appear before 1552, after all was over. It is written in strong language and a popular style, and with a laudable frankness; for Kaye blames in it, without any reserve, the gross mode of living of his countrymen, and does not fatigue his reader with too much book learning, which neither he nor his contemporaries could refrain from displaying on other occasions. He reserved this for the Latin version of his pamphlet, which was published four years later,[3] and although, judged according to a modern standard, it is far from being satisfactory, yet it contains an abundance of valuable matter, and proves its author to be a good observer; and in this we can nowhere mistake that he is an Englishman of the sixteenth century, however numerous the terms he may borrow from Celsus. His doctrines are of the old Greek school throughout, of which the physicians of those times were staunch supporters; hence the term *ephemera*[4] *pestilens*, his comparison of the disease with the similar fevers of the ancients,[5] and his ac-

[1] *Aikin*, p. 103, et seq.

[2] See Appendix.

[3] 1556.—This edition is very rare, and is probably not to be found in Germany. The edition brought out by the author (1833) is taken from a very good London reprint of 1721.

[4] In the German, sometimes called "eines Tags pestilentziches Fieber."

[5] P. 15. Lat. edit.—II. ἑλώδης, τυφώδης, ὑδρωδης.

curate appreciation of the important doctrine of æthereal spirits, to which he refers its chief causes, and, according to which, the corrupted atmosphere (spiritus corrupti) becomes mixed in the lungs with the spirits of blood (spiritus sanguinis), whence it at once appears explicable to him, why many persons may be attacked with the Sweating Sickness at the same time, and even in different places, and why the parts of the body in which, according to the ancient Greek notion, the æthereal spirits developed themselves, were most violently affected with this disease.[1] From the relationship of the infected air to the æthereal spirits in the body, polluted by intemperance, it also appears explicable to him, why foreigners in England, in whom this pollution took place in a less degree, were, only in cases of individual exception, attacked by the Sweating Sickness,[2] not to mention other theoretical notions.

On malaria in general, as he was an observant naturalist, he was enabled to turn to good account his experience in Italy and his knowledge of the ancients, and his estimation of the subordinate causes, with regard to which he takes up the same position as Agricola, who was also a good naturalist, is likewise on the whole worthy of approbation.[3] The immoderate use of beer, amongst the English, was considered by many as the principal reason why the Sweating Sickness was confined to this nation. On this subject he enlarges even to prolixity, with evident English predilection for this beverage which manifestly contributed to the morbid repletion of the people ; and he himself acknowledged this as a principal cause of the Sweating Sickness. The injurious quality of salt-fish, as alleged by Erasmus and the German physician Hellwetter,[4] he would not altogether have ventured to reject,[5] for it caused constant and abundant fetid perspirations, and might thus have contributed to pave the way for the Sweating Sickness. A similar source was to be found in the dirty rush floors in the English houses,[6] and other subordinate causes of the diseases of which mention has been made in the course of this treatise.

As a zealous advocate of temperance, it were to be wished that he had met with more attention ; but the words of a good physician are given to the winds, when they are directed against vices and habits of sensual indulgence ; people require from him an infallible preservative, and not a lecture on morality. His precepts on food and beverage are circumstantial, after the manner

[1] P. 17. seq. Lat. edit. [2] Ibid. p. 49. [3] Ibid. p. 31. [4] See above, p. 253.
[5] P. 43. Lat. edit. [6] Ibid. p. 44. See above, p. 198.

of the ancients, and he recommends such a variety, that it is difficult to make a choice; while nothing but the greatest simplicity can be of any avail. *Purifying fires*, which were kindled everywhere in times of plague, are also much lauded by him, and we here learn incidentally, that the smiths and cooks remained free[1] from the Sweating Sickness. Fumigations with odoriferous substances of all kinds, even the most costly Indian spices, were everywhere employed in the houses of the rich, and no one stirred out without having with him some one of the thousand scents recommended from time immemorial during the plague. The medicines which he recommends are those that were then in vogue; among which Theriaca, Armenian Bole, and Pearls, occur in various combinations, yet most of the prophylactics which he advises for obviating any defect in the constitution are not very violent.

Kaye's treatment of the Sweating Sickness is according to the mild old English plan, which is very judiciously and perspicuously laid down. He kept himself, on the whole, free from the influence of the schools in this instance, and the only remedy which he approved in case of necessity, was a harmless and very favourite preparation of pearls and odoriferous substances, which were called Manus Christi,[2] or, in Germany, sugar of pearls. It had its origin in the fifteenth century, and was the invention of *Guainerus*,[3] and there were various receipts for compounding it.[4] He also sometimes prescribed, at the commencement of the attack,[5] bole or terra sigillata, for how could a physician of the sixteenth century doubt the antipoisonous effect of this overrated remedy? Restlessness in the patient, debility, a too thick skin, and thick blood, are set forth by him as the chief impediments to the critical sweat, and in order to remove them, he sets to work with great and laudable caution, ordering, according to circumstances, even mulled wine and greater warmth. Sometimes, too, he could not refrain from employing Theriac and Mithridate, but he did not use these remedies to any great extent. For dropsical and rheumatic patients who became the subjects of the Sweating Sickness, he prescribed a beverage of Guaiacum; he also recommended as a sudorific, the China root, which was at that time much in use. When the perspiration broke out, he positively prohibited the urging it beyond the proper point; all medicines were

[1] P. 74. Lat. edit. [2] Ibid. p. 94. [3] Practica, fol. 43. a. 263. a.
[4] *Fallop.* de compos. medic. cap. 41. p. 208. [5] P. 102. Lat. edit.

thence laid aside, and he trusted to aromatic vinegar and gentle succussion alone for keeping off the lethargy, without considering, with *Damianus*, that more severe measures were essential.[1]

As a learned patron of the sciences, Kaye ranks amongst the most distinguished men of his country. Through his interest, Gonville Hall was, in the reign of *Queen Mary*, elevated to the rank of a college, better established, and more richly endowed. To the end of his life he continued to preside[2] over this his favourite institution, and passed his old age[3] there, not in Monkish contemplation, like Linacre, but zealously devoted to study, as the great number of his writings testifies. He was accused of having changed his faith according to circumstances. This pliability served, it is true, to retain him in favour with sovereigns of very opposite modes of thinking: it is not, however, a sign of elevation of mind, and can only be explained in part by the spirit of the English Reformation. *Kaye* was a reformer in fact, inasmuch as he was a promoter of instruction, and, perhaps, laid no stress on outward profession. His versatility as a scholar is extraordinary, and would be worthy of the highest admiration, had he entirely avoided the reproach of credulity, had he not been too prolix in subordinate matters, and had he shown more decided signs of genius. At one time he translated and illustrated the writings of Galen; at another, he wrote on philology or the medical art—it must be confessed, without much originality, for he took *Galen* and *Montanus* as his patterns.[4] But where could physicians be found at that time who did not follow established doctrines? Some essays on history and English Archæology are found among his writings;[5] and his works on Natural History, dedicated to Conrad Gesner, are among the best of his age, because he imparted his observations in them quite plainly and naturally, free from the trammels of any school. He died at Cambridge on the 29th of July, 1573, and ordered for himself the following epitaph—"Fui Caius."

[1] P. 106, 7. Lat. edit.

[2] Shortly before his death he resigned the Mastership, but continued to reside in the College as a fellow-commoner. See *Aikin*, p. 109.—*Transl. note.*

[3] He gave for a new building to this establishment, more than 1800*l.*, a very considerable sum for those times.

[4] De medendi methodo, ex Cl. Galeni Pergameni, et Joh. Bapt. Montani, Veronensis, principum medicorum, sententia, Libri duo. Basil. 1544. 8. He dedicated this frivolous book to the *court-physician in ordinary*, *Butts*. See *Balæus*, fol. 232. b.

[5] Compare his own work, "De Libris Propriis," in *Jebb*, which is a similar imitation of Galen, and is written in nearly the same spirit.

[6] De canibus Britannicis et de rariorum animalium et stirpium historia, in *Jebb*.

CHAPTER VI.

SWEATING SICKNESSES.

Ἔστι γάρ τὸ πάθος λύσις τῶν δεσμῶν τῆς εἰς ζωὴν δυνάμιος. ARETÆUS.

SECT. 1.—THE CARDIAC DISEASE OF THE ANCIENTS.

(MORBUS CARDIACUS.)

THUS by the autumn of 1551, the Sweating Sickness had vanished from the earth; it has never since appeared as it did then and at earlier periods; and it is not to be supposed that it will ever again break forth as a great epidemic in the same form, and limited to a four-and-twenty hours' course; for it is manifest, that the mode of living of the people had a great share in its origin; and this will never again be the same as in those days. Yet nature is not wanting in similar phenomena, which have appeared in ancient and modern times; and if we take into the account the great frequency of cognate rheumatic maladies, it is possible that isolated cases may have sometimes occurred, in which repletion of impure fluids, and violently inflammatory treatment, have augmented a rheumatic fever, even to the destruction of nervous vitality, by means of profuse perspiration—only, perhaps, that they ran a longer course (which does not constitute an essential difference), and under totally different names, whereby attention is misled. Of all the diseases that have ever appeared which can in any way be compared to the English Sweating Sickness, we have principally three to look back upon—the *cardiac disease* of the ancients, the *Picardy sweat*, and the *sweating fever of Rötingen*. The first was, for reasons which have been already mentioned,[1] almost unknown to the learned of the sixteenth century; and it is matter of surprise, that Kaye himself, who had chosen for his favourite the best Roman physician, we mean Celsus, could have so entirely overlooked his by no means unimportant statements respecting this disease. *Houlier* is the only author who ventures a comparison of the English Sweating Sickness with the ancient cardiac disease; his few, and almost lost words,[2] remained, however,

[1] See p. 251.

[2] "Sudor anglicus fere similis ei sudori, quem cardiacum dicebamus." De morb. int. L. II. fol. 60, a.

unheeded; nor are the differences between the two diseases small: but to return.

The disease of which we are speaking appeared for a period of 500 years (from 300 B.C. to 200 after Christ), and was a common, almost every-day occurrence, which is often mentioned even by non-medical writers. It was exceedingly dangerous, and even esteemed fatal; and as it was far above the reach of Greek physiology, there were not wanting extraordinary opinions respecting its nature, and bold and singular modes of treatment, to which those who were attacked were subjected. The name *Cardiac disease* (morbus cardiacus, *νόσος καρδιακὴ*, and probably also *νόσος καρδίτις*), was not bestowed by medical men, but by the people; who, in the fourth century before Christ, for the name is as ancient as that period, could not know that the learned would dispute on that subject. Some affirmed, and among them men of great authority, such as *Erasistratus*, *Asclepiades*, and *Aretæus*, that the people were in the right so to call the disease; that the heart was actually the part affected, and that their knowledge of the heart's functions was by no means small.[1] Others, on the contrary, would only acknowledge in that name an expression indicative, not of the particular seat of the disease, but only of its importance, inasmuch as the heart is well adapted, as the centre and source of life, to indicate this.[2] Others again, who attempted more refined conjectures, wished to represent the pericardium as the seat of the malady, because darting pains were sometimes felt[3] in the region of the heart, or the diaphragm, or the lungs, or even the liver. The opinions were numerous; the actual knowledge was small.[4]

The cardiac disease began with rigors and a numbness in the limbs,[5] and sometimes even throughout the whole body. The pulse then took on the worst condition, was small, weak, frequent, empty, and as if dissolving; in a more advanced stage, unequal and fluttering, until it became completely extinct. Patients were affected with hallucinations;[6] they were sleepless, despaired of their recovery, and were usually covered suddenly

[1] "Est autem *cor* præstans atque salutaris corpori particula, præministrans omnibus sanguinem membris, atque spiritum." *Cæl. Aurel.* Acut. L. II. c. 34. p. 154. Compare *the Author's* "Doctrine of the Circulation, before *Harvey*," Berlin, 1831. 8.

[2] *Cæl. Aurel.* cap. 30. p. 146.

[3] Ibid. cap. 34. p. 156.

[4] The whole 34th chapter, loc. cit. *Aurelian* gives, from the 30th to the 40th cap., the fullest information respecting the Morbus cardiacus.

[5] Torpor frigidus, C. 35. p. 157.

[6] Hallucinatio.

with an ill-savoured perspiration over the whole body, whence the disorder was likewise called *Diaphoresis*. Sometimes, however, a washy sweat broke out, first on the face and neck. This then spread itself over the whole body; assumed a very disagreeable odour, became clammy and like water in which flesh had been macerated, and ran through the bed-clothes in streams, so that the patient seemed to be melting away.[1] The breath was short and panting, almost to annihilation (insustentabilis). Those affected were in continual fear of suffocation;[2] tossed to and fro in the greatest anguish, and with *a very thin and trembling voice* uttered forth only broken words. They constantly felt an insufferable oppression in the *left side*, or even over the whole chest;[3] and in the paroxysms which were ushered in with *a fainting fit*, or were followed by one, *the heart was tumultuous and palpitated*, without any alteration in the smallness of the pulse.[4] The countenance was *pale as death*, the eyes sunk in their sockets, and when the disease took a fatal turn, all was darkness around them. *The hands and feet turned blue;* and whilst the heart, notwithstanding the universal coldness of the body, still beat violently, they for the most part retained possession of their senses. A few only wandered a short time before death, while others were even seized with convulsions and endowed with the power of prophecy.[5] *Finally, the nails became curved on their cold hands*, the skin was wrinkled, and thus the sufferers resigned their spirit without any mitigation of their miserable condition.[6]

A striking resemblance is plainly perceived, from this description, between the ancient cardiac disease and the English Sweating Sickness in the most exquisite cases of each. In both the same palpitation of the heart, the same alteration of the voice, the same anxiety, the same impediment to respiration, and thence the same affection of the nerves of the chest, the same ill-scented sweat, and by means of this sweat, the same fatal evacuation; in short, all the essential symptoms arising from the same circle of functions. For in the sweating pestilences of the ancients[7] as well as the moderns, the nerves of the abdomen remained unaffected; the liver, intestines, and kidneys, took no part in the primary affection; the diaphragm, as in the English Sweating Sickness, formed the partition. Hence the acute *Aretæus* did not hesitate to call the cardiac disease *fainting* (syncope),

[1] *Cæl. Aurel.* p. 157. [2] Spiratio præfocabilis.
[3] C. 34. p. 154. Thoracis gravedo. [4] C. 35. p. 156.
[5] *Aretæus*, L. II. c. 3. p. 30. [6] *Cæl. Aurel.* loc. cit. [7] Diaphoretici, cardiaci.

with certainly an unusual extension of the notion implied by this term, which in its common acceptation excludes the turbulent commotion of the heart. In the affection of the brain some difference occurs, for though the hallucination afforded an unfavourable prognostic in both diseases, yet the fatal stupor was peculiar to the English Sweating Sickness, no observer having made mention of it in the cardiac disease.

Greater and altogether essential differences between this affection and the English Sweating Sickness appear in another respect. There is every reason to suppose that the cardiac disease first appeared in the time of *Alexander* the Great, that is to say, at the end of the fourth century before Christ; for the Hippocratic physicians were unacquainted with it, *Erasistratus*, who was body physician to Seleucus Nicator, and was a universally celebrated professor at Alexandria under the first Ptolemy, being the first to mention it. If that age be compared even superficially with that of Henry the VIIth and Henry the VIIIth; and Africa, Asia Minor, and the South of Europe with England, we shall easily be convinced that the two diseases, notwithstanding the agreement in their main symptoms, could not be the same; moreover, much was comprehended by the ancients under the name of morbus cardiacus, which, on a nearer examination, proves not to be one and the same definite form of morbid action: for sometimes this affection is spoken of as an independent disease; sometimes it is mentioned only as a symptom superadded to others—as a kind of transition from other very various diseases, such as has occurred in modern times. *Soranus* mentions, as such diseases, continued fevers, accompanied by much heat;[1] and reckons among them the "Causus," that is, an inflammatory bilious fever, to which *Aretæus* also saw the cardiac disease superadded. These fevers passed, on the fifth or sixth day, into the cardiac disease, and such a transition occurred chiefly on the critical days.[2] In a similar sense *Celsus* speaks even of *Phrenitis*, under which name we are here to understand all inflammatory fevers accompanied by violent delirium, with the exception of actual inflammation of the brain. Thus we see that the cardiac disease arose and increased on a very different soil from other diseases, and was, to furnish an ancient example, as far from being independent under these circumstances as *lethargy* was in similar cases.

[1] Febres continuæ flammatæ. *Cæl. Aurel.* c. 31. p. 147.

[2] *Cretæus*, Cur. ac. L. II. c. 3. p. 188.

But there was doubtless an independent idiopathic form of the cardiac disease. Whether this was febrile or not, the most celebrated physicians of ancient times were not agreed. Now, how could they ever have differed upon the subject, if the cardiac disease had always appeared only as a sequela on the fifth or sixth day of inflammatory fevers? *Apollophanes*, a disciple of Erasistratus, and physician to *Antiochus the First*, considered it, with his master, as constantly febrile, and his opinion prevailed for a long time: perhaps he was in the right, for it is probable that in the first half of the third century, the disorder was much more violent than at a subsequent period. His celebrated contemporary, *Demetrius* of Apamea, disciple of Herophilus, affirmed, that he had recognised fever only in the beginning of the disease, and that it disappeared in its further progress. Very soon, most physicians decided that it was not febrile, but *Asclepiades* distinguished a febrile and a non-febrile form of the cardiac disease, and it is certain that this physician was a very accurate observer. *Themison* and *Thessalus* also agreed with him. *Aretæus* described, in a cursory manner, the febrile form only, and perhaps was not acquainted with any other. *Soranus* followed, in the essential points, *Asclepiades*, the founder of his school; and later writers generally regarded the inward heat, the hot breath, and the burning thirst—symptoms which were occasionally less marked, as proofs of the febrile nature of the disease. Numerous theoretical views, belonging to particular schools, of which we do not here treat, were intermingled with these, and upon the whole, that form seems to have been esteemed as non-febrile, in which the signs of feverish excitement appeared less marked. In all cases the cardiac disease set in with external coldness, and with a small, contracted, quick pulse, symptoms which with certainty indicate fever.[1]

Respecting the course of the cardiac disease, we are not furnished with sufficient information. It was no doubt very rapid, for the frame could not long endure symptoms of so violent a kind, and the disorder must of necessity soon have come to a crisis; yet from the ample directions for treatment, we may conclude that it lasted at least some days. If the perspiration was well surmounted, patients seemed to recover rapidly, and their sufferings appeared to them, according to the expressions of *Aretæus*, like a dream, out of which they awoke to a consciousness

[1] *Cæl. Aurel.* c. 33. p. 150.

of the increased acumen of their senses.[1] But the termination was not always so fortunate. The disease was very dangerous, and in many, after the occurrence of an incomplete crisis, an insidious fever remained behind, which ended in a consumption.[2] The whole phenomenon was altogether peculiar, and among existing diseases there are none which bear any comparison with it.

There must therefore have been something in the whole state of existence among the ancients which favoured the formation of the cardiac disease. That it arose oftener in summer than in winter, that it attacked men more frequently than women, and especially young people full of life, and hot-blooded plethoric persons, who used much bodily exercise, we learn from credible observers.[3] In this respect, therefore, it bore a resemblance to the English Sweating Sickness. We may also add, that indigestion, repletion, drunkenness, as likewise grief and fear, but especially vomiting and the employment of the bath after dinner, occasioned an attack of the malady.[4] Let us call to mind the habits of the ancients. It was in the time of *Alexander* that oriental luxury was first introduced. Gluttony became a part of the enjoyment of life, and warm baths a necessary refinement in sensuality, which just at this time were philosophically established by *Epicurus;* nor was this the last instance in which philosophers encouraged the errors and infirmities of human society.

Here again, therefore, as in the English Sweating Sickness, we meet with *the relaxed state of skin, and the foul repletion* engendered by the same indulgence in sensuality which we have found to exist in the sixteenth century. How this corruption of morals increased, and to what a frightful height it was carried among the Romans, it is not necessary here further to elucidate; and we may take it for a fact, that in consequence of it, the general constitution of the ancients underwent a peculiar modification; that this relaxation of skin and gross repletion were propagated from generation to generation; and that, as among chronic diseases, those of *a gouty character* were its more frequent results, so among the inflammatory, *the cardiac disease* made its appearance as the general effect of this kind of life.

Where, however, such a system of life existed among whole communities, the original and peculiar occasion was not needed in every individual case to bring the pre-disposition for a disease

[1] L. II. c. 3. p. 30. [2] *Aret.* Cur. ac. L. II. c. 3. p. 193.
[3] *Cæl. Aurel.* c. 31. p. 146. [4] Ibid.

which propagated itself by hereditary taint, to an actual eruption. Shocks to the constitution of quite a different kind were often sufficient for the purpose. Thus, among the Romans, it was by no means always the case, that gluttony and relaxation of the skin immediately gave rise to the cardiac disease; while, on the other hand, the usual faintness, induced by too copious blood-letting, passed into this impetuous agitation of the heart, accompanied by colliquative sweats;[1] and all over-violent perspirations in other diseases were apt to take the same dangerous course.[2] We must here also take into account a practice among the Romans, which was very injurious, and yet rendered sacred by the laws; namely, visiting the public baths late in the evening, just after the principal meal, and awaiting the digestion of their food in these places of soft indulgence.[3] How much must the tendency of sweating disorders have been favoured by these means!

Surmises, founded on the facts already stated, can alone be offered respecting the nature of the ancient cardiac disease. The ancients give us no certain intelligence upon it; for their mode of observing did not lead to that object at which modern medicine aims. *That the cardiac disease was not of a rheumatic character* seems deducible from several circumstances—from the quality of the atmosphere in southern climates, which is not so favourable to rheumatic maladies, as to give rise to a distinctly defined form of that complaint throughout a period of five hundred years; from the nature of the so-called inflammatory fever, which exhibited no rheumatic symptoms in its course; and lastly, from the treatment of the cardiac disease, for it was a common practice to cool down the "diaphoretic" patients in the midst of their perspiration, by sponging them with cold water, to expose them to the air, and some physicians went so far as to advise cold baths and effusions.[4] How could they have ventured upon such remedies if the cardiac disease had been of a rheumatic nature?

In the sweating fevers of the sixteenth century, every abrupt refrigeration, every exposure of the skin, was fatal. It is thence

[1] *Cæl. Aurel.* c. 33. p. 153. A perfectly similar observation is made in the present day, on the increasing frequency of liver complaints in England. Parents who have been a long time in the East Indies, entail the predisposition to these diseases, which are altogether foreign to the temperate zones, on their posterity, among whom there is no need of a tropical heat, but merely common causes acting in their own country, to call forth various liver complaints. See *Bell* (*George Hamilton*).

[2] *Cæl. Aurel.* c. 36. p. 159.

[3] On this subject read the classical work of *Baccius*.

[4] *Celsus*, L. III. c. 19. p. 140. *Cæl. Aurel.* from c. 37. on.

to be inferred, *that the English Sweating Sickness differed from the ancient cardiac disease in its rheumatic character;* even although both diseases were founded in common on an impure gross repletion and relaxation of skin, and the essential phenomena of both went through the same course: not to advert to other differences which are manifest from what has been stated.

The remaining treatment of the cardiac disorder should not be altogether passed over in this place, because it shows very clearly the general style of thinking of the medical profession, as also certain metaphysical excitations which are innate in that profession, and of which there is therefore a repetition in all ages. For whilst some proceeded with commendable care and caution, and *Aretæus* feared[1] a fatal result from the slightest error, others, again, would fain render excited nature obedient to their rough command by means of the most violent remedies. It, therefore, occasionally happened that in their over-hasty activity they were unable to distinguish between a salutary perspiration and a dangerous "diaphoresis." This they suppressed at all hazards, and thus sent their patients to the shades of their fathers. Others forthwith flew to Chrysippic bandaging, the great means of suppressing profuse evacuations, and even violent spasms.[2] Others were for obviating the debility as quickly as possible by means of nourishing diet, and overloaded the stomach, as if the recovery of strength depended entirely upon eating. Others allowed as much wine as possible to be drunk for twenty-four hours together, even to the extent of producing intoxication;[3] and *Asclepiades* selected for this extraordinary death-bed carousal the Greek salt wine,[4] for the sake of bringing on a diarrhœa, whereby the opened pores of the skin might again close, and the too mobile atoms might be carried towards the bowels. With the same object he ordered active clysters,[5] for if they succeeded in causing a full evacuation, he maintained that the perspiration must necessarily be arrested! *Endemus*, of the Methodic sect, recommended even clysters of cold water,[6] and whatever else the rashness of medical men had fool-hardily contrived; acting on the ancient notion, that severe diseases always required violent remedies. *Aretæus* recommended blood-letting, which others pronounced to be

[1] Ἦν γὰρ ἐπι συγκοπῇ καὶ σμικρὸν ἁμαρτῴη, ῥηϊδίως εἰς ἄδου τρέπει. Cur. ac. L. II. c. 3. p. 188.

[2] *Cæl. Aurel.* c. 37. p. 169.

[3] *Cæl. Aurel.* c. 38. p. 171.

[4] Græcum salsum, οἶνος τεθαλασσωμένος, a mixture of wine and sea-water which was very much in use.

[5] *Cæl. Aurel.* c. 39. pp. 174, 175.

[6] *Cæl. Aurel.* c. 38. p 171.

nothing short of certain death.[1] He had, however, a notion, that the Causus was the foundation of the cardiac disease, and perhaps he was right.

A cautious employment of wine was apparently of great use,[2] and what may excite surprise, physicians gave detailed and frivolous precepts on the choice and enjoyment of food. If the irritable stomach rejected this repeatedly, they even went so far, according to the Roman method, as to make the patient vomit both before and after his meals, in order that the organ might thus bear the repeated use of nourishment. It was also asserted that the stomach retained food and wine better if the body were previously rubbed all over with bruised onions.[3] All this affords us an insight into the nature of this remarkable disease, which has now so completely vanished from the world. Finally, when astringent decoctions proved fruitless, particular confidence was placed in the application of various powders[4] to the surface of the body, conjointly with the use of light bed-clothes and the avoidance of feather-beds, which the effeminacy of the ancients had already introduced.[5] As astringents they selected pomegranate bark, the leaves of roses, blackberries, and myrtles, as also fullers' earth, gypsum, alum, litharge, slaked lime,[6] and, when nothing else was at hand, even common road dust![7] The efficacy of some of these extraordinary remedies cannot be denied. At least it has been proved in modern times with respect to alkalies, which are of a somewhat similar nature, that they are of great service where there is an abundant determination of acid towards the skin, and it is very probable that the perspiration of these diaphoretic patients contained much acid.

Sect. 2.—The Picardy Sweat.

(Suette des Picards—Suette Miliaire.)

The Picardy Sweat is a decided miliary fever, which has often prevailed, not only in Picardy, but also in other provinces of France, for more than a hundred years, and even at the present

[1] "nihil jugulatione differre." *Cæl. Aurel.* c. 38. p. 171.

[2] *Celsus* recommended a sextarium and a half a-day, which is about 42 cubic inches. loc. cit. Cardiacorum morbo unicam spem in vino esse, certum est. *Plin.* Hist. Nat. L. xxiii. c. 2. T. II. p. 303. Bibere et sudare vita cardiaci est. *Senec.* Epist. 15. T. II. p. 68. Ed. Ruhkopf. Cardiaco cyathum nunquam mixturus amico. *Juvenal.* Sat. v. 32.

[3] *Celsus.* [4] Aspergines, sympasmata, diapasmata. *Cæl. Aurel.* c. 38. p. 171.

[5] *Cæl. Aurel.* c. 37. p. 161. [6] *Aretæus*, p. 192. [7] *Celsus*, loc. cit.

time exists in some places as an endemic disease.[1] We have pointed out the affinity between the English Sweating Sickness and miliary fever. Both are rheumatic fevers—the former of twenty-four hours' duration, the latter running a course of at least seven days. In the former there was no eruption, or if in isolated cases an eruption made its appearance, it was doubtless subordinate, not essential. In the miliary fever, on the contrary, the eruption is so essential, that this disease may be considered as a completely exanthematous form of rheumatic fever.

The history of miliary fever is full of important facts, and the sweating fever of Picardy forms but a variety of it. The eruption in itself is of very ancient occurrence, and was most probably, as at present, observed time immemorial in conjunction with petechiæ, occurring as a critical metastasis in the oriental glandular plague, perhaps even in the ancient plague recorded by Thucydides. It also occasionally accompanied petechial fever, as unquestionably it did small-pox and many other diseases, in the same manner as we now see; for the miliary eruption is a very common symptom, which is easily induced, and increases the danger of various other accidental complications. This is different, however, from the *idiopathic miliary fever*, which did not exist either before, or even at the period of, the English Sweating Sickness, but occurred as an epidemic, frequently mentioned in Saxony, a hundred years later[2] (1652).

We cannot, therefore, consider this eruptive disease as having proceeded from the English Sweating Sickness, in the same manner as the petechial fever had its probable origin in the glandular plague, even supposing a more decided inclination of the Sweating Sickness to the eruptive character could be proved than is possible from the facts afforded. A whole century intervened, and what vast national revolutions!

This same separation of so long a period makes also against the supposition, that the English Sweating Sickness was an interrupted miliary fever, which exhausted its power by a too luxuriant activity of the skin on the first day, before the eruption made its appearance. Moreover, the similarity and isolation of all the five epidemic sweating fevers, as regards the brevity of

[1] For instance, in the villages of Rue-Saint-Pierre and Neuville-en-Hez, between Beauvais and Clermont. *Rayer*, Suette, p. 74.

[2] *Godofredi Welschii* Historia medica novum puerperarum morbum continens. Disp. d. 20. April. 1655. Lipsiæ, 4to. The principal work upon the first visitation of miliary fever in Germany.

the course of the disease, and the absence of all transition forms of any duration, which certainly would have existed had nature intended gradually to form a miliary fever out of the English Sweating Sickness, lead to the same conclusion.

But to return to the miliary fever. Some forms of this disease have been observed, in which a profuse perspiration, in combination with nervous symptoms, has endangered life on the first day of the attack; equally often, too, the eruption has appeared fully formed on the very first day; and if we duly consider, as we ought, the regular course of miliary fever whenever it has assumed an epidemic character, we shall always find, even in that case, a development of symptoms differing fundamentally from those of the English Sweating Sickness. If, occasionally, instances of miliary fever occurred, in which no eruption came out, as was the case recently (in 1821), they were to be considered in the same light as other acute eruptive diseases, as, for example, scarlet fever, in which nature indulges in a like irregularity, without, however, altering the essence of those diseases. And since, finally, it has been observed in many cases,[1] that the miliary eruption could be prevented by the application of cold at the commencement, a distinguished modern physician has attached great consequence to this circumstance, as showing that miliary fever and the English Sweating Sickness were the same disease;[2] but a check of this kind is, at all events, impossible in those miliary fevers where the eruption breaks forth on the first or second day; and moreover, experience tells us, that many other diseases also, such as inflammations, rheumatisms, gastric fevers, and even abdominal typhus, may be arrested in their course, and confined within narrower bounds, so as not to manifest all their symptoms.

[1] For example, in the epidemic of 1782, which, during the course of a few months, carried off in Languedoc upwards of 30,000 people. *Pujol* observed in that epidemic four forms of exanthem. 1. A Purpura urticata—elevated rose-like spots, or papulæ of smaller circumference: it was very favourable, and sometimes passed off without fever. 2. Spots consisting of very small miliary vesicles and pustules which ran into each other: less favourable. 3. Small hemispherical pimples, from the size of a mustard seed to that of a corn of maize. They were surmounted by a white point before they died away, and the large kind became converted into pustules, filled with matter or greyish semitransparent phlyctænæ, with red inflamed bases. This form was the commonest, and extended, mixed with the others, over the whole surface, especially the trunk. 4. An exanthem resembling flea-bites, of a bright red, with a small grey miliary vesicle in the middle, almost invisible, except through a lens: this form was the worst. *Pujol*, Œuvres diverses de Médecine Pratique, 4 vols. *Castres*, 1801. 8vo.

[2] *Foderé*, III. p. 222.

We are, therefore, completely entitled to consider the appearance of the miliary sweating fevers as altogether a novelty, originating in the middle of the 17th century, and having no discoverable connexion with the English Sweating Sickness. There have been in Germany, since the year 1652, many visitations of miliary fever; but this disease did not increase much in extent until about the year 1715, when it spread into France and the neighbouring countries, particularly Piedmont,[1] whilst England remained almost entirely free from it. The French epidemics were, upon the whole, much more severe than the German; and on this account we select one of the most ancient, and also the most recent of them, in order to give a general view of miliary fever, as compared with the English Sweating Sickness.

The miliary fever first appeared in Picardy, in the year 1718, in le Vimeux (Vinnemacus pagus), a district on the north of the Somme and on the south of the Bresle and the department of the Lower Seine. It increased annually in extent; most places in Picardy were visited by it, and it was not long before it was seen in Flanders.[2]

We are still in possession of a very distinct account, which we will here detail, of an epidemic at Abbeville in the year 1733, where the miliary fever had existed fifteen years previously. There were scarcely any premonitory symptoms, but the disease commenced at once with pinching pains in the stomach, extreme prostration of strength, dull head-ache, and difficulty of breathing, interrupted by sighing. Patients complained of violent heat, and were bathed in a pungent sweat of foul odour, while nausea was occasionally felt. Sparks appeared before the eyes, and *the countenance became flushed.* Patients were tormented with burning thirst; and yet the tongue was as moist as in perfect health. The pulse was frequent and undulating, without hardness; and in the course of *a few hours,* an insufferable itching came on over the whole body, accompanied by distressing jactitation: upon this, thickly studded, *red, round pustules,* not bigger than mustard-seeds, broke out, wherefrom patients emitted an extremely disagreeable urinous odour, which was imparted to those who were about their persons. Sometimes they had evacuations, at other times they suffered from constipation, but all complained

[1] On this point see *Allioni*, who drew his classical description of miliary fever from the Piedmont epidemics.

[2] *Bellot*, An febri putridæ, Picardis Suette dictæ sudorifera? Diss. præs. *Ott. Cas. Barfeknecht.* Paris, 1733. 4to.

of want of sleep; and when they felt an inclination to doze, they were again aroused by fresh chilliness. Many bled at the nose till they fainted; and with women, the menstrual discharge often appeared, though not at the proper time. The urine was at times deficient in quantity, at others discharged in abundance, and without any critical signs; if pale and plentiful, it betokened delirium; then the eyelids twitched convulsively, a humming noise commenced in the ears, and the patient tossed about restlessly. The pulse became strong, irregular, and, like the breathing, very quick. The countenance grew redder and redder; and soon after, the sufferers, as though struck by lightning, were seized with lethargy, and expired, generally in the act of coughing and spitting blood.

Such was the nature of the disease when it attacked many at once: there were, however, several varieties. With some the miliary vesicles broke out on the *second* day, with others not before the *third;* and if all went on favourably, they lost their redness on the *seventh day*, and *the skin all over the body scaled off like bran.* The fever was sometimes extremely violent; at others, without apparent cause, very mild; at least one might be deceived at the commencement of the attack, by the apparently favourably symptoms; for those who in the morning had scarcely any notable degree of fever, who neither suffered from any anxious sensation nor violent heat, in whom no subsultus tendinum was perceptible, no want of perspiration, nor any retrocession of the eruption, were sometimes towards evening seized with phrenzy, and died in a state of lethargy. Evacuations, which alleviate other diseases, made this miliary fever worse. Favourable symptoms could never be depended on. In the midst of profuse perspiration the patient died, either from constipation or diarrhœa. A copious discharge of urine was a bad sign; composure was succeeded by delirium, cheerfulness by lethargy: the disease was throughout treacherous and disguised. It was particularly necessary for those suffering from pleurisy or any inflammatory fevers to be guarded against its approach. Many fell sacrifices to this epidemic who thought themselves in a state of convalescence; and with such it was easier to foretell than to prevent the consequences. In cases of this kind the miliary vesicles were less red and grew pale sooner; but if the disease attacked a healthy person, then they were redder, and continued longer. Of those who recovered, not a few suffered for many months, nay, even for a whole year, from night perspirations, without fever or sleeplessness, but with

an eruption of little miliary vesicles, which disappeared[1] again on the slightest exposure to cold. The later miliary epidemic fevers in France, which are distinguished by the name of the Picardy Sweating Sickness, are generally very well described;[2] so much so, that we have few epidemics of modern times whose course and succession we can trace so well. But the epidemic of 1821, which raged in the departments of the Oise, and of the Seine and Oise, from March to October, has been observed by all with the greatest care, including men of distinguished talent.[3]

We shall give the description of this disease. There were no constant premonitory symptoms; it often broke out quite suddenly, but many complained some days before of debility, despondency, want of appetite, nausea, head-ache; sometimes also of giddiness and slight chilliness. Many retired to rest in health, and awoke during the night with the disease, covered with a perspiration, which ceased only with death or recovery. With some the sweating was preceded for some hours, or even only for some moments, by a scarcely perceptible feverish commotion, accompanied with burning heat, or with a *sensation of pain* which ran through every limb, and nearly always with spasms in the stomach. With others the disease announced itself by lacerating rheumatic pains, which gradually increasing, they became bedridden. The mouth was foul, the taste at times bitter, the tongue white, more rarely tinged with yellow, and thus it remained till the patient was restored. The sufferer was shortly covered with *a thick, peculiarly fetid sweat*, that certainly produced alleviation, but became very intolerable to him from its unpleasant stench, which was even communicated to the clothes of the bystanders. In the mean time it was discovered by the pulse, that the fever had considerably abated; but, on the third day, the patient was seized with convulsive *spasms in the stomach*, great *oppression at the chest*, and a sensation of suffocation—symptoms which caused him insupportable anguish. These attacks, accompanied by hiccup and eructation, continued for several hours, and returned from time to time, an eruption, partly palpular, simultaneously breaking out first on the neck, then on the shoulders down to the hands and breast, less frequently on the thighs and face. The little

[1] *Rayer*, Suette, p. 426, where the principal passage of *Bellot's* dissertation is reprinted word for word.

[2] Best in *Rayer*, p 421. Not so well in *Ozanam*, T. iii. p. 105. The writers are very numerous.

[3] *Rayer*, *Mazet*, *Bally*, *François*, *Pariset*, and many others.

pimples were of a pale red colour and conical, with glistening heads, and between them appeared innumerable small miliary pustules, filled with transparent serous fluid, which soon thickened and assumed a whiter hue. At the time and previous to the breaking out of the exanthem, the patient experienced a very severe *burning and pricking sensation in the skin*, which nevertheless sometimes occurred on the second or fourth day, and which increased sometimes in one part, sometimes in another, when the sweating declined.

Towards the fifth day, however, after the sweating had entirely ceased, the complaint grew worse again. The spasms and paroxysms of suffocation returned, and they were succeeded by renewed eruptions of the exanthem; a decided improvement, however, shortly took place; the little pimples lost their redness, the miliary vesicles dried away, and at a period from the seventh to the tenth day recovery commenced under *a general exfoliation of the cuticle*. Sometimes the eruption did not appear, whether the patients were under medical treatment, or left to their own guidance, but with those few in whom there was an absence of miliary vesicles, that peculiar pricking and itching of the skin did not take place.

Between the fifth and seventh day the patients usually complained of great weakness, and had a desire to eat. A few tablespoonfuls of wine then agreed with them very well; for the rest, neither thirst nor lethargy was observable, but it was particularly remarkable that the urine was clear and abundant. Up to the seventh day a confined state of bowels was usual, and, with the exception of the already mentioned attacks of tightness and oppression, the breathing remained free, though with great sleeplessness, during the whole malady. Nothing morbid was to be observed in the chest, and the patients lay stretched out at full length, so that there was no occasion at any time to raise their heads.

Such was the regular course of this miliary fever, but its progress was often accelerated by very dangerous symptoms, and occasionally it proved fatal within a very few hours. If at the time of the attack the patients were very restless and talkative, the eyes glistening, the pulse, without being hard, tumultuous, and the edges of the tongue reddened, delirium soon succeeded, and then convulsions and death. Great depression of the spirits was a very bad symptom; bleeding was never of any avail, yet the menstrual discharge did not interrupt the course of the dis-

ease. There was in general a great degree of malignancy perceptible in the malady, as was also rendered apparent by the course of the epidemic. If the miliary Sweating Fever broke out in a fresh place, two or three persons only were thereupon attacked, and that favourably, which led to a supposition that the evil had all passed away, for during the next fifteen or twenty days, not any fresh attacks were heard of. Suddenly, however, the epidemic reappeared with increased virulence. The great number of the sufferers spread consternation and terror amongst the inhabitants, and the cases of death became frequent. After this first burst of fury, the epidemic grew more mild again, so that many patients were not confined to their beds at all. This mitigation of the miliary fever was likewise manifested [1] by the prolongation of its course beyond the seventh day.

If we compare this epidemic with the one observed at Abbeville in 1773, we shall find between them but very trifling differences, which would appear still more clearly in some of the intermediate visitations, thus conforming to what has been observed in other eruptive maladies. It is consequently evident that the miliary fevers [2] which have appeared in France in recent times, do not differ in any essential point from those of more ancient date. The surest proof of their identity is, their persistence for nearly two centuries; and from the manner in which they have presented themselves to observation, they are to be considered as distinct from the English Sweating Sickness, though certainly allied to it. It would exceed our limits to pursue this inquiry further, but it may be as well to give the following short catalogue [3] of the most important miliary epidemics.

1652. Leipzig.
1660. Augsburg.
1666. Bavaria.
1672. Hungary.
1675. Hamburgh.
1680. Germany to a great extent.
1689. Philippsburg.
1690. Stuttgard.
1690. Düsseldorf.
Erfurt.
Jena.
1694. Berlin.
1700. Breslau.
1709. Dantzic, Marienburg.
1712. Mümpelgart.
1713. Saint Valery. (Somme.)

[1] *Bally* and *François*, in the Journal Général de Médecine, T. LXXVII. p. 204. Compare *Foderé*, T. III. p. 227. *Ozanam*, T. III. p. 116. *Rayer*, Suette, p. 148. Mal. d. l. p. T. I. p. 320.

[2] We may add to them also those observed in the South of Germany, in the œtiology of which *Schönlein* lays much stress on the contamination of the air in the process of steeping hemp. *Vorlesungen*, II. p. 324.

[3] It is not complete, but may render apparent the power and extent of the disease. See *Rayer*, Suette, p. 465.

1714. 15. Laybach.
1715. Breslau.
Turin.
1718. Tübingen.
Abbeville. (Somme.)
1720. Canton de Bray. (Lower Seine.)
1723. Francfort on the Maine.
1724. Turin.
Vercelli.
1726. Acqui.
Guise. (Aisne.)
1728. Chambéry, Annecy, St. Jean de Maurienne. (Savoy.)
Carmagnola.
Vercelli.
Ivrea.
Biella.
1729. Vienna. (Austria.)
1730. Pignerol.
1731. Fossano.
1732. Nizza.
Rivoli.
1733. Fossano.
Asti.
Lanti.
Acqui.
Basle.
Silesia.
1734. Strasburg. (Lower Rhine.)
Acqui.
Lanti.
1735. Trino.
Lanti.
Fresneuse. (Lower Seine.)
Vimeux. (Seine et Oise.)
Orleans. (Loiret.)
Pluviers. (Loiret.)
Meaux. Villeneuve.
Saint George. (Seine et Marne.)
Bohemia.
Denmark.
Sweden.
Russia.
1738. Luzarches, Royaumont. (Seine et Oise.)
Susa.
Crescentino.
1740. Caen. (Calvados.)
1740. Provins. (Seine et Marne.)
Vire. (Calvados.)
Berthonville. (Eure.)
Falaise. Calvados.)
1741. Rouen. (Lower Seine.)
Tartana.
Valencia.
Alexandria.
London.
1742. Caudebec. (Lower Seine.)
Ceva.
Turin.
Sorillano.
Alba.
Ivrea.
Cherasco.
Fossano.
1743. Villafranca.
1744. Acqui.
1746. Zurich.
1747. Paris. (Seine.)
Beaumont. (Seine et Oise.)
Chambly. (Oise.)
Modena.
Lodi.
Mantua.
Piacenza.
1750. Schaffhausen.
Bern.
Geneva.
Beauvais. (Oise.)
1751. Villafranca.
1752. Fernaise. (Seine et Oise.)
1753. Susa.
1754. Valepuiseux. (Seine et Oise.)
1755. Novara.
1756. Cusset. (Allier.)
Boulogne. (Pas de Calais.)
1757. Montaigu les Combrailles. (Puy de Dôme.)
1758. Amiens, environs. (Somme.)
1759. Paris. (Seine.)
Guise. (Aisne.)
Caudebec. (Lower Seine.)
1760. Alençon. (Orne.)
1763. Vire. (Calvados.)
1763, 64. Bayeux. (Calvados.)
1765. Balleroy, Basoques. (Calvados.)
Saint-George, Saint-Quentin. (Calvados.)

1766. Campagny. (Calvados.)
1767. Thinchebray, Truttemer. (Orne.)
1768, 69. St. Quentin. (Aisne.)
1770. Louviers. (Eure.)
1771. Montargis. (Loiret.)
1772. Hardivilliers, environs.
1773. Hardivilliers. (Oise.)
1776. Laigle. (Orne.)
1777. Jouy. (Seine et Oise.)
1782. Castelnaudary. (Aude.)
1782. Boissy Saint-Léger. (Seine et Oise.)
1783. Beaumont. (Seine et Oise.)
1791. Méru. (Oise.)
1810. Nourare, Villotran. (Oise.)
1812. Rosheim, and may other places. (Lower Rhine.)
1821. La Chapelle, Saint-Pierre, and sixty places around. (Oise ; Seine et Oise.)

Sect. 3.—The Roettingen Sweating Sickness.

We now come to a phenomenon which, notwithstanding its short duration and very limited extension, is one of the most memorable of this century. Up to the present time, its real importance has not been recognised, because the clouds of self-sufficient ignorance have prevented our taking a survey of the formation of diseases, throughout long periods of time. It has been sunk for an age in the sea of oblivion, from whence we will now draw it forth to the light of day.

In November, 1802, a very hot and dry summer had been succeeded by incessant rain. Thick fogs spread over the country, and enveloped such places in central Germany as were inaccessible to ventilation. Amongst others, the small Franconian town of Roettingen, situated on the river Tauber, and surrounded by mountains.[1] Scarcely had a few weeks elapsed, when unexpectedly, towards the 25th of November, an extremely fatal disease broke out in the town, which was without example in the memory of its inhabitants, and totally unknown to the physicians of the country.

Strong vigorous young men were suddenly seized with *unspeakable dread ;* the heart became *agitated* and *beat violently against* the ribs, a *profuse, sour, ill-smelling perspiration* broke out over the whole body, and at the same time, they experienced a *lacerating pain* in the nape of the neck, as if a violent rheumatic fever had taken possession of the tendinous tissues. This pain ceased sometimes very quickly, and if it then shifted to the chest, the distressing palpitation of the heart recommenced ; a spasmodic trembling of the whole body ensued ; the sufferers fainted, their limbs became rigid, and thus they breathed their last. *In most cases, all this occurred within four and twenty hours.* They did not all, however, succumb under the first attack, but as soon as

[1] At that time inhabited by about two hundred and fifty country people. *Sinner.* p. 7.

the accelerated pulse had sunk to the lowest ebb of smallness and feebleness, a corresponding effect being observable in the respiration, the violent pain would in some cases return to the outward parts. The patient then felt a benumbing pressure and stiffness in the nape of the neck; and the pulse and respiration became restored again as in health, but the perspiration continued to pour incessantly down the skin.

This apparent safety was, however, very deceptive, for a renewed palpitation of the heart unexpectedly commenced, accompanied by a feeble pulse; and then death was often inevitable. It was remarkable, that the patients, though bathed in perspiration, had very little thirst, and the tongue was not dry, nor ever even foul, but retained its natural moisture. With most, however, the urine was scanty; as the skin, under the increasing debility, permitted too much fluid to stream forth through its pores. *If the disease passed off without heating sudorifics, then in general no eruption made its appearance.* The malady then continued till the sixth day, but on the first only did it display its malignant symptoms, for by the second, the sweating diminished and lost every unfavourable quality, so that increased transpiration of the skin, without any other symptoms of importance, alone remained, and on the sixth day the patient was perfectly restored.

Had there been in Roettingen a physician at hand from the commencement, *well skilled in medical history*, and who would have adopted the old English treatment of the Sweating Sickness, this new fever would have appeared but as a perfectly mild disease, and would certainly have carried off but few of the inhabitants of this peaceful little town. As it was, however, the scenes of Lübeck and Zwickau were renewed, and it seemed as if the innumerable victims to the hot treatment, and to *Kegeler's* truculent medical work, had descended to the grave in vain. *The sufferers were, as in the sixteenth century, literally stewed to death!* for the moment the people imagined that they knew how nature meant to escape, they ordered feather-beds to be heaped on the perspiring patient, so that the mouth and nose alone remained uncovered. Doors and windows were tightly closed, and the stove emitted a glowing heat, whilst a most intolerable odour of perspiration streamed forth from beneath the broad and lofty beds; added to which, that two and even more patients were often lying in the same room; nay, even stowed together under the same mountain of feathers, and in order that inward heat might not be wanting, pots of theriaca were swallowed, and the patient was incessantly

plied with elder electuary. Thus the bad humours were expelled together with the perspiration; and whether the sufferers were suffocated, or surmounted, as by a miracle, this mal-treatment of nature, a conviction was felt, that the most salutary remedies had been employed, and when at last eruptions of various colours broke out, it was considered as certain, that the poison had been carried off in them. The citizens of Roettingen, therefore, fell into the same erroneous opinion, which, upheld by medical schools, had, time immemorial, increased inflammatory diseases, particularly the exanthematous, and caused them to become malignant. The above-mentioned eruptions were of various sorts; miliary vesicles of every form and colour, filled with an acrid fluid; actual blistery eruptions (pemphigus), and even petechiæ; and it is to be observed, that the patients, during the first days of the sweating fever, never suffered from that peculiar pricking sensation over the whole body which precedes the eruption of miliaria, but complained only, and that not always, of a local itching, where the eruption had broken out. It was equally rare to observe a regular desquamation of the skin, and it is therefore to be assumed, that *the eruptions were only symptomatic,* and not by any means necessarily connected with the disease, as in the decidedly miliary fevers.

The disease excited, from its very commencement, the greatest consternation; and as it was increased, even from the first days of its appearance, by the sudorific system of treatment, deaths were multiplied; the continual peal of funeral bells struck mortal terror, as of old at Shrewsbury, into the hearts of both sick and healthy; and this oppressed little town was shunned as a pest-hole by the inhabitants of the surrounding neighbourhood. At the commencement of the disease, they were entirely without medical advice, till a skilful physician arrived from the vicinity,[1] and as *most of the inhabitants* were already attacked with the sweating fever, he immediately prescribed the proper treatment. But the powers of one man are not sufficient, amid such confusion, to contend with the deeply-rooted prejudices of the people, and so they continued in most houses to expel by heat and theriaca both perspiration and life together; till at last, on the third of December, *Dr. Sinner* of Würzburg arrived, without whom the remembrance of this remarkable disease would have been obliterated, and conjointly with his gallant colleague, like the anonymous physician formerly in Zwickau, subdued the destructive prejudices of

[1] *Dr. Thein*, government physician of the town of Aub.

the people. He found eighty-four patients[1] under piles of feather-beds, who, when pure air was admitted, breathed once more freely, and by a prudent cooling system, all recovered easily, and without danger, one only excepted. His method reminds us of the old English treatment.[2] The disease was confined entirely to Roettingen; it did not make its appearance anywhere beyond the gates of this little town. On the fifth of December, however, clear, frosty weather set in; from that time no new cases occurred, and all traces of this Roettingen sweating fever, which was never either preceded or followed by miliary fever in any part of Franconia, have from that time disappeared.

The resemblance of this fever to the English Sweating Sickness is manifest, and is proved even by the short (*only ten days'*) duration of the visitation, which, as we have stated, is a most essential charactesistic of the English sweating epidemic, at least as it appeared in Germany; the miliary epidemics always have lasted a much longer period. But if we confine ourselves merely to the symptoms of the disease, we shall find, that in the Roettingen sweating fever, there are, throughout, none that can be considered essential, except the *palpitation of the heart, accompanied with anguish*, the *profuse perspiration*, and the *rheumatic pains in the nape of the neck*, which never were wanting in any case; and the very same symptoms are clearly and perceptibly to be discerned in like proportion as compared with others, in the representation of the English Sweating Sickness; whereas, the eruptions were altogether as unessential as in the epidemic of the sixteenth century. The irritability of the skin, and tendency to dangerous metastases, were less marked in the Roettingen fever than in the English Sweating Sickness; for the patients could, without injury, change their linen in the midst of the perspiration, which, in the English Sweating Sickness, could not have been done without fatal consequences; but this difference can easily be accounted for, from the greater degree of suffering in the latter disease than in the former. It only now remains to examine the duration of the disease, and here we plainly perceive that the principal paroxysm was over in the Roettingen epidemic within the first four and twenty hours,

[1] The whole number of cases and of deaths is not stated. Dr. *Sinner* found nine bodies, none of which had been opened, shortly before the cessation of the disease.

[2] Everything heating was avoided; the air was cautiously purified, cooling beverage was given, and contrary to the method of Brown, at that time in vogue, few medicines such as valerian, spirits of hartshorn, Hoffman's drops, &c., were employed. Blisters were of service, and, likewise, under some circumstances, camphor. The convalescents were well nourished.

at least when it was undisturbed by treatment; and the sole symptom which continued until the sixth day—the increased perspiration (we speak here only of perfectly pure cases)—could only reasonably be regarded as a sequela. The crisis did not occur all on a sudden, as in the English Sweating Sickness, but this cannot constitute any essential difference.

We do not hesitate, therefore, to pronounce *the Roettingen fever to have been the same disease as the English Sweating Sickness.* To give, however, this phenomenon its proper interpretation—to have a clear conception of the causes which again drew down from the clouds, into the midst of Germany, this mist-born spectre of 1529, and allowed it to expend its brief fury upon a single place, is beyond the power of human wisdom. Science is not comprehensive enough to discover, in the crossings of these unknown comet-paths, the moving causes of this visitation of disease. But as all insight into the works of nature must be preceded by a strict investigation and search after phenomena in all countries, at all times, and under all circumstances of development, so an improved knowledge of diseases and of the whole human system, will not fail to follow, when the investigations of epidemics throughout extensive periods have increased in number and success.

The present age demands such a knowledge of medical men, whose vocation it is to investigate life minutely in all its bearings. It demands of them an historical pathology, and to this branch of the study of nature is the present work intended to contribute.

CHRONOLOGICAL SURVEY.

POLITICAL EVENTS.

1461-1483. Louis XI.

1485-1509. Henry VII.

1493-1519. Maximilian I. Mercenary troops are introduced.

1483-1498. Charles VIII.

1483-1485. Richard III.

1483, October. First abortive attempt of the Earl of Richmond (who had fled to France in 1471) against Richard III. The Duke of Buckingham executed.

1485. Richmond obtains support from Charles VIII.

1485, 25th July. Richmond's departure from Havre.

1485, 1st August. Landing at Milford Haven.

1485. From the 1st to the 22nd of August, march from Milford Haven to Lichfield and Bosworth.

1485, 22nd August. The battle of Bosworth. Richard III. falls. The Earl of Richmond becomes king, under the name of Henry VII.

1485, 28th August. Henry's entry into London.

1485, 30th October. Henry's coronation.

1481-1492. The wars of Ferdinand the Catholic, against the Saracens.

1495. Useless war for the suc-

FIRST VISITATION OF THE SWEATING SICKNESS.

1478-1482. Swarms of locusts in the south of Europe.

1480-1485. Wet years.

1483. Overflow of the Severn (the *great water* of the Duke of Buckingham).

1480 and 1481. Famine in Germany and France.

1477-1485. Glandular plague in Italy.

1480, 1481. Encephalitis in Germany.

1482. Febrile cerebritis in France, and epidemic pleuritis in Italy.

1483. Glandular plague in Spain.

1484 and 1485. Malignant fever in Germany and Switzerland. Plague in Spain.

1485. *In the beginning of August: eruption of the English Sweating Sickness, probably amongst Richmond's mercenary troops. It spread from west to east, and then in a contrary direction.*

1485. *The end of August, in Oxford.*

1485. *21st September till the early part of October, in London.*

1485. *The middle of November, in Croyland.*

1486, *1st January. Termination of the first epidemic Sweating Sickness.*

1486. Epidemic scurvy in Germany. Plague in Spain.

POLITICAL EVENTS.

cession of Charles VIII. against Alfonso II. (who died in 1495), and Ferdinand II. of Naples. The conquest of the kingdom was again immediately relinquished.

1485-1509. Henry VII.

1501. His eldest son, Arthur, marries Catherine of Arragon, daughter of Ferdinand the Catholic.

1502. Prince Arthur dies. Prince Henry (VIII.), second son of Henry VII., is affianced to Catherine of Arragon.

The internal condition of England is altered by Henry VII. The towns begin to rise in importance, and the sciences to become diffused. A rigorous and unjust financial system.

1498-1515. Louis XII.

1501. conquers Naples in conjunction with the Spaniards, and is by them

1504. expelled thence. He establishes his power in Upper Italy.

1511. Pope Julius II. (1503-1513) forms the sacred league against France, into which enters likewise, in 1512, Henry VIII. The French lose their power in Italy.

1504. Isabella of Castile dies. Philip I. of Austria, her daughter Johanna's husband, succeeds her, his son, Charles V., having been born in 1500.

FIRST VISITATION.

1488-1490. Plague in Spain.

1490. First eruption of petechial fever in Granada, in the army of Ferdinand the Catholic.

1495. Eruption of the syphilitic pestilence at Naples, among the mercenary army of Charles VIII.

1499. Great plague in London.

SECOND VISITATION.

1500-1503. Mould-spots (signacula) in Germany and France.

1500. Comet.

1500. Mortality among cattle in Germany.

1502. Very extensive destruction of cultivation in Germany by blights of caterpillars.

1503. Glandular plague, and destructive epidemics in Germany and France.

1504. Plague in Spain.

1504 and 1505. Encephalitis, putrid fever, and malignant pneumonia in Germany.

1505. Plague in Portugal.

1505. First epidemic petechial fever in Italy. The morbid activity of the organism showed a decided determination towards the skin during all this period.

1505. Moist summer. Lamentable moral state of England.

1506. *The summer: the Sweating Sickness breaks out in London, and continues to a moderate extent, being confined to England, until the autumn. This second visitation is the mildest of all, and the old English method of treatment proves effectual everywhere.*

Political Events.

1506. Philip I. dies.
1516. Ferdinand the Catholic dies.

1509-1547. Henry VIII.
1515-1547. Francis I. immediately attacks Milan again, and conquers
1515. the Swiss, in the battle of Marignano. Keeps possession of Milan and establishes the French dominion in Italy until the year 1522.
1516. Cardinal Wolsey changes the policy of England in favour of Francis I.,
1520. then of Charles V.
1513-1522. Leo X., against France. Promotes, by a new bull of indulgences, the outbreak of the Reformation.
1517. 31st of October, Luther commences the Reformation.
1519. 12th January, the Emperor Maximilian I. dies.
1519-1556. Charles V.
1521. Imperial diet at Worms.
1517. May: Insurrections of the operatives in London.
1517. In the autumn and winter, Henry VIII. frequently changes the residence of his Court in consequence of the Sweating Sickness and the Plague.
1518. 11th February, Queen Mary is born.
1518. The College of Physicians in London is founded by Linacre.
1521. Henry VIII. opposes Luther, and obtains the title of

Second Visitation.

1506-1508. Pestilential epidemics in Spain.
1508. Swarms of locusts in Spain.

Third Visitation.

1515. Pestilential epidemics in Spain.
1516. Comet.
1517. Unproductive, but not moist summer.
1510. Great influenza (Coqueluche) throughout France, and probably to a still further extent. Plague in the north of Europe.
1517. In the early months epidemic trachæitis and œsophagitis (diphtheritis) in Holland, lasting only eleven days. This epidemic extends towards the south, and appears in the same summer at Bâsle.
1517. On the 16th June, earthquake in Swabia (and Spain).
1517. Encephalitis and other inflammatory fevers in Germany.
1517. *In July, outbreak in London of the third visitation of epidemic sweating sickness; it spreads with great malignity all over England, and among the English at Calais; in the sixth week it attains its greatest violence, and terminates in December. Ammonius, of Lucca, and many distinguished and learned persons in Oxford and Cambridge, are carried off by it.*
1517. In December, immediately after the Sweating Sickness, a plague occurs in England, and lasts all the winter.

Political Events.

"Defender of the Faith." (*Thomas More.*)

Third Visitation.

1517. Small-pox breaks out in Hispaniola.

Fourth Visitation.

1524. October, Francis I. passes Mont Cenis, and is
1525. beaten at Pavia and captured.
1526, 14th January. Peace of Madrid.
1526. Clement VII. (1523-1534) becomes the head of the Holy League against the Emperor.
1527. 6th May. Rome is vanquished by the imperial army and sacked.
1528. A French army, under Lautrec, conquers the greatest part of Italy, and commences
1528. 1st May, the siege of Naples. Lautrec dies in August.
1528. 29th August, the siege of Naples is raised. The remains of the French army are made prisoners.
1528. Charles V. challenges Francis I. to single combat.
1529. 5th August, Francis I. concludes the unfavourable peace of Cambray. Termination of the French dominion in Italy. The Reformation in England is retarded.
1527. Scruples of Henry VIII. respecting his marriage with Catherine of Arragon. Various negociations on the subject in the following years. Cardinal Wolsey falls into disgrace. Thomas More becomes chancellor.
1528. Henry VIII. retires to

1524. Great plague at Milan.
1527. Inundations in Upper Italy.
1527. 11th August, a comet.
1527. Plague in the imperial army in Italy, after the sacking of Rome; and in Wittemberg.
1528-1534. Years of famine, with a prevalence of moisture and heat.
1528. Repeated inundations. Continual south winds and summer fogs in Italy. Second great epidemic petechial fever there.
1528. Destruction of the French army before Naples by a pestilential Spotted Fever.
1528. Cold spring and moist summer in France.
1528-1532. Warm winters, moist summers. Repeated failures of harvest, and great famines in that country.
1528. The Trousse-galant carries off a fourth part of the inhabitants of France in this and the following years.
1528. Wet and mild winter. Moist summer with fogs. Failure in crops, and famine in England.
1528. *At the end of May: outbreak in London of the Fourth epidemic Sweating Sickness. It spreads with great malignity, and with much disturbance of social life, all over England; carries off many distinguished persons, and terminates in the winter. This year it remains confined*

Political Events.

Tytynhangar in consequence of the Sweating Sickness.

1532. Separation of the king from Catherine. Mary is excluded from the government.

1533. January. Anna Boleyn becomes queen. The Reformation is introduced.

1535. Thomas More and Fisher are executed.

1536. Anna Boleyn is executed. Jane Seymour becomes queen. Dies 1537.

1537. Anne of Cleves becomes queen. Separation after six months.

1541. Catherine Howard, queen, and executed one year and six months afterwards.

1544. Catherine, queen.

1547. 13th December, Henry VIII. dies.

1521. Plots of the Iconoclasts in Zwickau and Wittenberg.

1523-1525. Peasant war. On the 15th May, battle of Frankenhausen.

1529. Imperial Diet at Spires.

1529. 22nd September — 16th October, the Turks before Vienna.

1529. 2nd October, assemblage of the Reformers in Marburg.

1530. 25th June, surrender of the Augsburg confession. Severe decrees against the Protestants.

1531. League of the Protestant princes at Schmalkalden. Continued danger from the Turks.

1532. Imperial Diet at Nuremberg. The Protestants obtain security.

1533-1535. Excesses of the Anabaptists at Münster.

Fourth Visitation.

to England, and does not return in the following year.

1528. Continual south-east winds. Great drought. Swarms of locusts and fiery meteors in the north of Germany.

1529. Earthquake in Upper Italy. Sanguineous rain at Cremona. A comet in July and August.

1529. Mild winter in Germany. The spring begins in February. Great moisture throughout the summer. General dearth in March. Disease among the porpoises in the Baltic. Unwholesomeness of the river fish in the north of Germany. Disease among birds. Languor resembling syncope in Pomerania. Frequent suicides in the March. In the middle of June a flood of rain lasting four days (torrent of St. Vitus) in the south of Germany. On the 10th of August, a universal tempest. 24th of August, and the following days, great heat.

1529. *25th July, outbreak of the epidemic Sweating Sickness in Hamburgh. Termination on the 5th August. On the 29th July in Lübeck. On the 14th August in Zwickau. About the 1st September the English Sweating Sickness appears to spread universally all over Germany. On the 31st August in Stettin; termination on the 8th September. On the 1st September in Dantzic; termination on the 6th September. On the 24th August in Strasburg. On the 5th, 6th, and 7th September in Cologne, Augsburg, and Francfort on the*

Political Events.

1536. The Schmalkaldic league is strengthened.

1538. The Catholic States establish the sacred league at Nuremberg.

1540. Paul III. (1534-1550) confirms the order of the Jesuits, founded in 1534 by Ignatius Loyola.

1519-1541. Conquest of Mexico, Peru, Chili, &c.

1542. Maurice Duke of Saxony renounces the league of Schmalkalden.

1542. The imperial army which opposes the Turks in Hungary, under Joachim II. of Brandenburg, is destroyed by sickness.

1546. The 18th February, Luther dies.

1546. Charles V. takes the field against the Protestants, proclaims the Elector, John Frederick, and Landgrave Philip of Hesse, outlaws. Gains

Fourth Visitation.

Maine. About the 20th September in Vienna and among the besieging Turks. On the 27th September in Amsterdam. Termination on the 1st October in Antwerp and the rest of the Netherlands; simultaneously, at the end of September, in Denmark, Sweden, and Norway. At the commencement of November a universal cessation of the epidemic Sweating Sickness.

1530. In October, overflow of the Tiber. Bursting of the dykes and sudden inundations in Holland, which were repeated in 1532.

1531. 1st of August to 3rd September, the comet of Halley.

1532. From 2nd October to 8th November, and

1533. From the middle of June to August, comets.

1534. Termination of the years of scarcity, during which malignant fevers prevailed in circumscribed localities throughout Europe.

Fifth Visitation.

1538. Epidemic dysentery in France.

1540. The hot summer. The forests take fire spontaneously.

1541. Plague in Constantinople.

1542. Swarms of locusts in the south of Europe, and plague in Hungary during the war of the Turks in that kingdom.

1543. Plague and petechial fever in Germany. Metz.

1545 and 1546. Trousse-galant in France, of which 10,000 English die at Boulogne.

Political Events.	Fifth Visitation.
1547. 24th April, the battle of Muhlberg. Raises	1546. Plague in the Netherlands and France.
1548. Duke Maurice to the electorate of Saxony, and prescribes the *interim*, which is not accepted by Magdeburg.	1547. Petechial fever in the imperial army.
1551. Magdeburg declared to be under the imperial ban, and besieged in vain by the Saxons.	1547-1551. Mould spots and red water in the north of Germany.
1552. Henry II. of France (1547-1559), in alliance with the Protestant princes, takes Metz, Toul, and Verdun.	1549. Caterpillars destroy the herbage, and a mortality occurs among cattle in Germany. The 21st of September an aurora borealis.
1552. The treaty of Passau secures to the Protestants equal rights with the Catholics.	1549 and 1550. Malignant fever (petechial fever?) in the north of Germany.
1547-1553. Edward VI. nine years old. The Duke of Somerset governs the kingdom as Protector. The Reformation is favoured, and makes progress.	1551. Dry and cold spring; hot and wet summer. Inundations, earthquakes, meteors, mock suns, great tempests, summer fogs.
1553. Mary persecutes the Protestants, and in 1558 loses Calais.	1551. Malignant fever in Swabia: plague in Spain. Influenza.
1556. Charles V. abdicates, and dies on the 11th of September, 1558, in Spain.	1551. In the spring, stinking mists on the banks of the Severn.
	1551. *On the 15th of April outbreak of the fifth epidemic Sweating Fever in Shrewsbury on the Severn. It gradually spreads with stinking mists all over England, and on the 9th of July reaches London. The mortality is very considerable. Foreigners are unaffected, but Englishmen in foreign countries sicken with the English Sweating Sickness. The epidemic terminates on the 30th of September.*
	1552 and 1553. Malignant fever in Germany and Switzerland.

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APPENDIX.

A BOKE, OR COUNSEILL

AGAINST

THE DISEASE

COMMONLY CALLED

THE SWEATE,

OR

SWEATYNG SICKNESSE.

MADE BY JHON CAIUS

DOCTOUR IN PHISICKE.

UERY NECESSARY FOR EUERYE PERSONNE, AND MUCHE REQUISITE TO BE HAD IN THE HANDES OF AL SORTES, FOR THEIR BETTER INSTRUCTION, PREPARACION AND DEFENCE, AGAINST THE SOUBDEIN COMYNG, AND FEARFUL ASSAULTYNG OF THE SAME DISEASE.

1552.

TO THE RIGHTE HONOURABLE

WILLIAM EARLE OF PENBROKE,

LORDE HARBERT OF CARDIFE, KNIGHT OF THE HONOURABLE ORDRE OF THE GARTER, AND PRESIDENT OF THE KYNGES HIGHNES COUNSEILL IN THE MARCHES OF WALES:

JHON CAIUS

WISHETH HELTH AND HONOUR.

In the fereful tyme of the sweate (ryghte honourable) many resorted vnto me for counseil, among whōe some beinge my frendes & aquaintance, desired me to write vnto them some litle counseil howe to gouerne themselues therin: saiyng also that I should do a greate pleasure to all my frendes and contrimen, if I would deuise at my laisure some thīg, whiche from tyme to tyme might remaine, wherto men might in such cases haue a recourse & present refuge at all nedes, as thē they had none. At whose requeste, at that tyme I wrate diuerse counseiles so shortly as I could for the present necessite, whiche they bothe vsed and dyd geue abrode to many others, & further appoynted in my self to fulfill (for so much as laye in me) the other parte of their honest request for the time to come. The whiche the better to execute and brynge to passe, I spared not to go to all those that sente for me, bothe poore, and riche, day and night. And that not only to do thē that ease that I could, & to instructe thē for their recouery: but to note also throughly, the cases and circumstaunces of the disease in diuerse persons, and to vnderstande the nature and causes of the same fully, for so much as might be. Therefore as I noted, so I wrate as laisure then serued, and finished one boke in Englishe, onely for Englishe mē not lerned, one other in latine for men of lerninge more at large, and generally for the help of thē which hereafter should haue nede, either in this or other coūtreis, that they may lerne by our harmes. This I had thoughte to haue set furth before christmas, & to haue geuē to your lordshippe at new-yeres tide, but that diuerse other businesses letted me. Neuertheles that which then coulde not be done cometh not now out of season, although it be neuer so simple, so it may do ease hereafter, which as I trust this shal, so for good wil I geue and dedicate it vnto your good Lordshippe, trustyng the same will take this with as good a mind, as I geue it to your honour, whiche our Lorde preserue and graunt long to continue.

At London the first of Aprill.

1552.

THE

BOKE OF JHON CAIUS

AGAINST

THE SWEATYNG SICKNES.

MAN beyng borne not for his owne vse and cōmoditie alone, but also for the commō benefite of many, (as reason wil and al good authoures write) he whiche in this world is worthy to lyue, ought al wayes to haue his hole minde and intente geuen to profite others. Whiche thynge to shewe in effecte in my selfe, although by fortune some waies I haue ben letted, yet by that whiche fortune cannot debarre, some waies again I haue declared. For after certein yeres beyng at cambrige, I of the age of xx. yeres, partly for mine exercise and profe what I coulde do, but chefely for certein of my very frēdes, dyd translate out of Latine into Englishe certein workes, hauyng nothynge els so good to gratifie theim w^{t}. Wherof one of *S. Chrysostome de modo orandi deum*, that is, of y^{e} manner to praye to god, I sent to one my frende then beyng in the courte. One other, a woorke of *Erasmus de vera theologia*, the true and redy waye to reade the scripture, I dyd geue to Maister Augustine Stiwarde Alderman of Norwiche, not in the ful as the authore made it, but abbreuiate for his only purpose to whome I sent it, Leuyng out many subtile thinges, made rather for great & learned diuines, thē for others. The thirde was the paraphrase of the same Erasmus vpon the Epistle of S. Jude, whiche I translated at the requeste of one other my deare frende.

These I did in Englishe the rather because at that tyme men ware not so geuen all to Englishe, but that they dyd fauoure & mayteine good learning conteined in tongues & sciences, and did also study and apply diligently the same thē selues. Therfore I thought no hurte done. Sence y^{t} tyme diuerse other thynges I haue written, but with entente neuer more to write in the Englishe tongue, partly because the cōmoditie of that which is so written, passeth not the compasse of Englande, but remaineth enclosed within the seas, and partly because I thought that labours so taken should be halfe loste among them whiche sette not by learnyng. Thirdly for that I thought it beste to auoide the iudgement of the multitude, from whome in maters of learnyng a man shalbe forced to dissente, in disprouyng that whiche they most approue, & approuyng that whiche they moste disalowe. Fourthly for that the common settyng furthe and printīg of euery foolishe thyng in englishe, both of phisicke vnperfectly, and other matters vndiscretly diminishe the grace of thynges learned set furth in thesame. But chiefely, because I wolde geue none example or comforte to my countrie men, (whō I wolde to be now, as here tofore they haue bene, comparable in learnyng to men of other countries) to stonde onely in the Englishe

tongue, but to leaue the simplicite of thesame, and to procede further in many and diuerse knoweleges bothe in tongues and sciences at home and in vniuersities, to the adournyng of the cōmon welthe, better seruice of their kyng, & great pleasure and commodite of their owne selues, to what kinde of life so euer they shold applie them. Therfore whatsoeuer sence that tyme I minded to write, I wrate y^e^ same either in greke or latine. As firste of all certein commentaries vpon certein bokes of William framinghā, maister of art in Cambrige, a man of great witte, memorie, diligence and learnyng, brought vp in thesame scholes in Englande that I was, euer frō his beginnyng vntil his death. Of the which bokes, ij. of *cōtinētia* (or cōtinence) wer in prose, y^e^ reste in metre or verse of diuerse kindes. One a comforte for a blinde mā, entitled *ad Aemilianum cæcum consolatio*, one other *Ecpyrosis, seu incendiū sodomorū*, the burnyng of Sodome. The thirde *Laurentius*, expressyng the tormentes of Saincte Laurence. The fourthe, *Idololatria*, Idolatrie, not after the trade and veine of scripture (wherein he was also very well exercised) but conformable to scripture and after the ciuile and humane learnyng, declaryng them to worshippe *Mars*, that warre, or fight: *Venus*, that lyue incontinently: *Pluto*, that folowe riches couetousely; and so forth through all vices vsed in his time. The fiueth boke *Arete*, vertue: the sixth, Epigrāmes, conteined in two bokes, whiche by an epistle of his owne hand before y^e^ boke yet remainyng, he dedicated vnto me, purposyng to haue done many more prety thynges, but that cruell death preuēted, and toke him away wher he and I was borne at Norwiche, in the yere of our Lord M.d.xxxvij. the xxix. daie of September, beynge then of the age of xxv. yeres, vij. Monethes, and vj. daies, a greate losse of so notable a yonge man. These workes at his death he willed to comme to my handes, by which occasion after I had viewed thē, and perceiued them ful of al kyndes of learnyng, thinkyng thē no workes for all mē to vnderstande with out helpe, but such as were wel sene in all sortes of authours: I endeuoured my selfe partely for the helpe of others, & partly for mine owne exercise, to declare vpon theim the profite of my studie in ciuile and humane learnynge, and to haue before mine eyes as in a worke (which was alwaies my delyght) how muche I had profited in the same. Thys so done, I ioyned euery of my commentaries to euery of hys saied bokes, faier written by Nicolas Pergate puple to the saied Maister Framyngham, myndyng after the iudgement of learned men had in thesame, to haue set theim furthe in prynte, if it had ben so thought good to theim. For whyche cause, at my departynge into Italie, I put an Epistle before theym dedicatorye to the right Reuerend father in God Thomas Thirlbye, now Bishoppe of Norwiche, because thesame maister Framyngham loued hym aboue others. He after my departure deliuered the bokes to the reuerende father in god Jhō Skippe, late bishop of Hereforde, then to D. Thirtle, tutor to the sayd maister framynhā, frō him to syr Richard Morisine, now ambassadoure for y^e^ kinges maiestie with thēperour, then to D. Tailour Deane of Lincolne, and syr Thomas Smithe, secretarie after to y^e^ kynges Maiestie, all great learned men. Frō these to others they wente, among whome the bokes died, (as I suppose,) or els be closely kept, that after my death they may be setfurthe in the names of them which now haue thē, as their workes. Howe soeuer it be, wel I knowe that at my returne out of Italie (after vj. yeres continuance ther) into Englād, I coulde neuer vnderstand wher they wer, although I bothe diligently and desirousely sought thē. After these I translated out of Greke into Latine a litle boke of *Nicephorus*, declarynge howe a man maye in praiynge confesse hym selfe, which after I dyd geue vnto Jhō Grome bacheler in arte, a yong

man in yeres, but in witte & learnyng for his tyme, of great expectatiō. That done I beganne a chronicle of the citie of Norwiche, of the beginninge therof & thinges done ther frō time to time. The matere wherof yet rude and vndigested lyeth by me, which at laisure I minde to polishe, and to make an end of that I haue begunne. And to be shorte, in phisicke diuerse thynges I haue made & settefurth in print bothe in Greke and Latine, not mindyng to do other wise, as I haue before said, al my life: For which cause al these thinges I haue rehersed, els superfluous in this place. Yet see, meaning now to counseill a litle agaynst the sweatyng sickenes for helpe also of others, notwithstandyng my former purpose, two thynges compell me, in writynge therof, to returne agayne to Englishe, Necessite of the matter, & good wyl to my countrie, frendes, & acquaintance, whiche here to haue required me, to whome I thinke my selfe borne.

Necessite, for that this disease is almoste peculiar vnto vs Englishe men, and not common to all men, folowyng vs, as the shadowe the body, in all countries, albeit not at al times. Therfore compelled I am to vse this our Englishe tongue as best to be vnderstande, and moste nedeful to whome it most foloweth, most behoueth to haue spedy remedie, and often tymes leaste nyghe to places of succource and comforte at lerned mennes handes: and leaste nedefull to be setfurthe in other tongues to be vnderstand generally of all persons, whome it either haunteth not at all, or els very seldome, as ones in an age. Thinkynge it also better to write this in Englishe after mine own meanyng, then to haue it translated out of my Latine by other after their misunderstandyng.

Good wyll to my countrie frendes and acquaintance, seynge them wyth out defence yelde vnto it, and it ferefully to inuade thē, furiously handle them, spedily oppresse them, vnmercyfully choke them, and that in no small numbers, and such persons so notably noble in birthe, goodly conditions, graue sobrietie, singular wisedōe, and great learnynge, as Henry Duke of Suffolke, and the lorde Charles his brother, as fewe hath bene sene lyke of their age: an heuy & pitifull thyng to here or see. So that if by onely learned men in phisicke & not this waye also it should be holpen, it were nedeful almost halfe so many learned men to be redy in euery toune and citie, as their should be sweatynge sicke folkes. Yet this notwithstandynge, I wyll euery man not to refuse the counseill of the present or nighe phisicen learned, who maie, accordyng to the place, persone, cause, & other circūstances, geue more particular counseil at nede, but in any wise exhorte him to seke it with all diligence. To this enterprise also amonge so many learned men, not a litle stirreth me the gentilnes and good willes of al sortes of men, which I haue well proued heretofore by my other former bokes. Mindynge therefore with as good a will to geue my counseil in this, and trusting for no lesse gentlenes in the same, I wyll plainly and in English for their better vnderstandynge to whome I write, firste declare the beginnynge, name, nature, and signes of the sweatynge sickenes. Next, the causes of the same. And thirdly, how to preserue men frō it, and remedy them whē they haue it.

The beginnyng of the disease.—In the yere of our Lorde God M.CCCC.lxxxv. shortly after the vij. daye of august, at whiche tyme kynge Henry the seuenth arriued at Milford in walles, out of Fraunce, and in the firste yere of his reigne, ther chaunced a disease among the people, lastyng the reste of that monethe & all september, which for the soubdeine sharpenes and vnwont cruelnes passed the pestilence. For this commonly geueth iij. or iiij. often vij. sumtyme ix. as that firste at Athenes whiche *Thucidides* describeth in his seconde boke, sum-

tyme xj. and sumtyme xiiij. dayes respecte, to whome it vexeth. But that immediatly killed some in opening theire windowes, some in plaieng with children in their strete dores, some in one hour, many in two it destroyed, & at the longest, to thē that merilye dined, it gaue a sorowful Supper. As it founde them so it toke them, some in sleape some in wake, some in mirthe some in care, some fasting & some ful, some busy and some idle, and in one house sometyme three sometime fiue, sometyme seuen sometyme eyght, sometyme more some tyme all, of the whyche, if the haulfe in euerye Towne escaped, it was thoughte great fauour. How, or wyth what maner it toke them, with what grieffe, and accidentes it helde theym, herafter thē I wil declare, whē I shal cōme to shewe the signes therof. In the mene space, know that this disease (because it most did stand in sweating from the beginning vntil the endyng) was called here, the Sweating sickenesse: and because it firste beganne in Englande, it was named in other countries, the englishe sweat. Yet some coniecture that it, or the like, hath bene before seene among the Grekes in the siege of Troie. In thēperor Octauius warres at *Cantabria*, called nowe Biscaie, in Hispaine: and in the Turkes, at the Rhodes. How true that is, let the aucthours loke: how true thys is, the best of our Chronicles shewith, & of the late begonne disease the freshe memorie yet confirmeth. But if the name wer now to be geuen, and at my libertie to make the same: I would of the maner and space of the disease (by cause the same is no sweat only, as herafter I will declare, & in the spirites) make the name *Ephemera*, which is to sai, a feuer of one natural dai. A feuer, for the feruor or burning, drieth & sweating feure like. Of one naturall day, for that it lasteth but the time of xxiiij. houres. And for a distinction from the commune *Ephemera*, that Galene writeth of, comming both of other causes, and wyth vnlike paines, I wold putte to it either Englishe, for that it followeth somoche English menne, to whō it is almoste proper, & also began here: or els pestilent, for that it cōmeth by infection & putrefaction, otherwise then doth the other *Ephemera*. Whiche thing I suppose may the better be done, because I se straunge and no english names both in Latine and Greke by commune vsage taken for Englishe. As in Latin, Feure, Quotidiā, Tertian, Quartane, Aier, Infection, Pestilence, Uomite, Person, Reines, Ueines, Peines, Chamere, Numbre, &c. a litle altered by the commune pronunciation. In Greke, Pleuresie, Ischiada, Hydrops, Apostema, Phlegma, and Chole: called by the vulgare pronunciatiō, Schiatica, Dropsie, Impostume, Phleume, & Choler: Gyne also, and Boutyre, Sciourel, Mouse, Rophe, Phrase, Paraphrase, & cephe, wherof cometh Chaucers couercephe, in the romant of the Rose, writtē and pronoūced comōly, kerchief in y^e^ south, & courchief in the north. Thereof euery head or principall thing, is comonlye called cephe, pronoūced & writtē, chief. Uery many other there be in our commune tongue, whiche here to rehearse were to long. These for an example shortelye I haue here noted. But for the name of this disease it maketh now no matter, the name of Sweat beyng cōmōly vsed. Let vs therfore returne to the thing, which as occasiō & cause serued, came againe in the M.D.vi. the xxii. yeare of the said Kyng Henry the seuenth. Aftre that, in the yeare M.D.xvii. the ix. yeare of Kyng Henry the viii, and endured from July, vnto y^e^ middest of Decēbre. The iiii tyme, in the yeare M.D.xxviii. the xx. yeare of thesaied Kyng, beginning in thende of May, & continuing June and July. The fifth tyme of this fearful *Ephemera* of Englande, and pestilent sweat, is this in the yeare M.D.LI. of oure Lorde GOD, and the fifth yeare of oure Souereigne Lorde king Edwarde the sixth, beginning at Shrewesbury in the middest of April, proceadinge with greate mortalitie

to Ludlowe, Prestene, and other places in Wales, then to Westchestre, Couentre, Drenfoorde, and other tounes in the Southe, and suche as were in and aboute the way to London, whether it came notablie the seuenth of July, and there continuing sore, with the losse of vii. C. lxi. from the ix. day vntil the xvi. daye, besides those that died in the vii. and viii. dayes, of whō no registre was kept, frō that it abated vntil the xxx. day of the same, with the losse of C. xlii. more. Then ceassing there, it wente from thence throughe al the east partes of England into the Northe vntill the ende of Auguste, at whiche tyme it diminished, and in the ende of Septembre fully ceassed.

This disease is not a Sweat onely, (as it is thought & called) but a feuer, as I saied, in the spirites by putrefaction venemous, with a fight, trauaile, and laboure of nature againste the infection receyued in the spirites, whervpon by chaunce foloweth a Sweate, or issueth an humour compelled by nature, as also chanceth in other sicknesses whiche consiste in humours, when they be in their state, and at the worste in certein dayes iudicial, aswel by vomites, bledinges, & fluxes, as by sweates. That this is true, the self sweates do shewe. For as in vtter businesses, bodies yᵗ sore do labour, by trauail of the same are forced to sweat, so in inner diseases, the bodies traueiled & labored by thē, are moued to the like. In which labors, if nature be strōg & able to thrust out the poisō by sweat (not otherwise letted) yᵉ persō escapeth: if not, it dieth. That it is a feuer, thus I haue partly declared, and more wil streight by the notes of the disease, vnder one shewing also by thesame notes, signes, and short tariance of the same, that it consisteth in the spirites. First by the peine in the backe, or shoulder, peine in the extreme partes, as arme, or legge, with a flusshing, or wind, as it semeth to certeine of the pacientes, flieng in the same. Secondly by the grief in the liuer and the nigh stomacke. Thirdely, by the peine in the head, & madnes of the same. Fourthly by the passion of the hart. For the flusshing or wynde comming in the vtter and extreame partes, is nothing els but the spirites of those same gathered together, at the first entring of the euell aire, agaynste the infection therof, & flyeng thesame from place to place, for their owne sauegarde. But at the last infected, they make a grief where thei be forced, whiche cōmonly is in tharme or legge (the fartheste partes of theire refuge) the backe or shulder: trieng ther first a brūt as good souldiers, before they wil let their enemye come further into theire dominion. The other grefes be therefore in thother partes aforsaid & sorer, because the spirites be there most plētuous as in their founteines, whether alwaies thinfection desireth to go. For frō the liuer, the nigh stomack, braine, and harte, come all the iij. sortes, and kyndes of spirites, the gouernoures of oure bodies, as firste spronge there. But from the hart, the liuish spirites. In putrifieng wherof by the euel aier in bodies fit for it, the harte is oppressed. Wherupon also foloweth a marueilous heauinesse, (the fifthe token of this disease,) and a desire to sleape, neuer contented, the senses in al partes beynge as they were bounde or closed vp, the partes therfore left heuy, vnliuishe, and dulle. Laste foloweth the shorte abidinge, a certeine Token of the disease to be in the spirites, as wel may be proued by the *Ephemera* that Galene writethe of, whiche because it consistethe in the Spirites, lasteth but one natural day. For as fire in hardes or straw, is sone in flambe & sone oute, euen so heate in the spirites, either by simple distemperature, or by infection and putrefaction therein conceyued, is sone in flambe and sone out, and soner for the vehemencye or greatnes of the same, whiche without lingering, consumeth sone the light matter, contrary to al other diseases restyng in humoures, wherin a fire ones kindeled, is not so sone

put out, no more then is the same in moiste woode, or fat Sea coles, as well by the particular Example of the pestilence, (of al others most lyke vnto this) may be declared, whyche by that it stādeth in euel humors, tarieth as I said, sometyme, from iiij. vii. ix. & xj. vntill xiiij. dayes, differentlie from this, by reason therof, albeit by infection most lyke to this same. Thus vnder one laboure shortelie I haue declared—both what this disease is, wherein it consisteth, howe and with what accidentes it grieueth and is differente from the Pestilence, and the propre signes, and tokens of the same, without the whiche, if any do sweate, I take theym not to Sweate by this Sickenesse, but rather by feare, heate of the yeare, many clothes, greate exercise, affection, excesse in diete, or at the worst, by a smal cause of infection, and lesse disposition of the bodi to this sicknes. So that, insomoche as the body was nat al voide of matter, sweate it did when infection came: but in that the mattere was not greate, the same coulde neyther be perilous nor paineful as in others, in whom was greater cause.

The causes.—Hetherto I haue shewed the beginning, name, nature, & signes of this disease: nowe I will declare the causes, which be ij.: infectiō, & impure spirites in bodies corrupt by repletiō. Infection, by thaire receiuing euel qualities, distēpring not only y^e^ hete, but the hole substāce therof, in putrifieng thesame, and that generally ij. waies. By the time of the yere vnnatural, & by the nature & site of the soile & region—wherunto maye be put the particular accidentes of this same. By the time of the yeare vnnaturall, as if winter be hot & drie, somer hot and moist: (a fit time for sweates) the spring colde and drye, the fall hot & moist. To this mai be ioyned the euel disposition by constellation, whiche hath a great power & dominion in al erthly thinges. By the site & nature of the soile & regiō, many wayes. First & specially by euel mistes & exhalatiōs drawen out of the grounde by the sūne in the heate of the yeare, as chanced amōg the Grekes in the siege of Troy, wherby died firste dogges & mules, after, mē in great numbre: & here also in Englād in this m.d.lj. yeare, the cause of this pestilent sweate, but of dyuers nature. Whiche miste in the countrie wher it began, was sene flie frō toune to toune, with suche a stincke in morninges & eueninges, that mē could scarcely abide it. Thē by dampes out of the earth, as out of Galenes *Barathrū*, or the poetes *auernū*, or *aornū*, the dampes wherof be such, that thei kil y^e^ birdes fliēg ouer them. Of like dampes, I heard in the north coūtry in cole pits, wherby the laboring mē be streight killed, except before the houre of coming therof (which thei know by y^e^ flame of their cādle) thei auoid the groūd. Thirdly by putrefactiō or rot in groūdes aftre great flouddes, in carions, & in dead men. After great fluddes, as happened in y^e^ time of Gallien thēperor at rome, in *Achaia* & *Libia*, wher the seas sodeinly did ouerflow y^e^ cities nigh to y^t^ same. And in the xi. yeare of *Pelagius*, when al the flouddes throughe al Italye didde rage, but chieflye *Tibris* at Rome, whiche in many places was as highe as the walles of the citie.

In cariōs or dead bodies, as fortuned here in Englande vpon the sea banckes in the tyme of King Alured, or Alfrede; (as some Chroniclers write) but in the time of king Ethelred after Sabellicus, by occasion of drowned Locustes cast vp by the Sea, which by a wynde were driuen oute of Fraunce thether. This locust is a flie in bignes of a mānes thumbe, in colour broune, in shape somewhat like a greshopper, hauing vi. fiete, so many wynges, two tiethe, & an hedde like a horse, and therfore called in Italy *Caualleto*, where ouer y^e^ city of *Padoa*, in the yeare m.d.xiij. (as I remembre,) I, with manye more did see a swarme of theim, whose passage ouer the citie, did laste two hours, in breadth inestimable to euery man there. Here by example to note infection by deadde

menne in Warres, either in rotting aboue the ground, as chaunced in Athenes by theim of Ethiopia, or els in beyng buried ouerly as happened at Bulloigne, in the yere M.D.xlv. the yeare aftre king Henrye theight had conquered the same, or by long continuance of an hoste in one place, it is more playne by dayly experience, then it neadeth to be shewed. Therefore I wil now go to the fourth especial cause of infectiō, the pent aier, breaking out of the ground in yearthquakes, as chaunced at Uenice in the first yeare of *Andrea Dandulo*, then Duke, the xxiiij. day of Januarye, and xx. hour after their computacion. By which infectiō mani died, & many were borne before their time. The v. cause is close, & vnstirred aire, & therfore putrified or corrupt, out of old welles, holes in y^e^ groūd made for grain, wherof many I did se in & about *Pesaro* in Italy, by openīg thē aftre a great space, as both those coūtrimē do cōfesse, & also by exāple is declared, for y^e^ manye in openīg thē vnwarely be killed. Out of caues, & tōbes also, as chaūced first in the country of *Babilonia*, proceding aftre into Grece, and so to Rome, by occasion that y^e^ souldiers of themperour *Marcus Antoninus*, vpon hope of money, brake up a golden coffine of *Auidius Cassius*, spiēg a litle hole therin, in the tēple of *Apollo* in *Seleucia*, as *Ammianus Marcellinus* writeth. To these mai be ioyned the particular causes of infectiō, which I cal the accidentes of the place, augmenting thesame. As nigh to dwelling places, merishe & muddy groundes, puddles or donghilles, sinkes or canales, easing places or carions, deadde ditches or rotten groundes, close aier in houses or ualleis, with suche like. Thus muche for the firste cause.

The second cause of this Englyshe *Ephemera*, I said were thimpure spirites in bodies corupt by repletiō. Repletion I cal here, abundance of humores euel & maliciouse, from long time by litle & litle gathered by euel diete, remaining in the bodye, coming either by to moche meate, or by euel meate in qualitie, as infected frutes, meates of euel iuse or nutrimēt; or both ioyntly. To such spirites when the aire infectiue cometh cōsonant, thē be thei distēpered, corrupted, sore handled, & oppressed, thē nature is forced, & the disease engendred. But while I doe declare these impure spirites to be one cause, I must remoue your myndes frō spirites to humours, for that the spirites be fedde of the finest partes therof, & aftre bringe you againe to spirites where I toke you. And forsomuche as I haue not yet forgotten to whome I write, in this declaration I will leaue a part al learned & subtil reasōs, as here void & vnmiete, & only vse suche as be most euident to whom I write, & easiest to be vnderstanden of the same: and at ones therwith shew also why it haūteth vs English men more thē other nations. Therfore I passe ouer the vngētle sauoure or smell of the sweate, grosenes, colour, and other qualities of the same, the quantitie, the daunger in stopping, the maner in coming furthe redily, or hardly, hot or cold, the notes in the excremētes, the state longer or sorer, with suche others, which mai be tokēs of corrupt humours & spirites, & onli wil stād upō iii. reasōs declaring y^e^ same swet by gret repletiō to be in vs not otherwise for al the euel aire apt to this disease, more thē other natiōs. For as hereaftre I wil shew, & Galē cōfirmeth, our bodies cā not suffre any thīg or hurt by corrupt & infectiue causes, except ther be in thē a certeī mater prepared apt & like to receiue it, els if one were sick, al shuld be sick, if in this countri, in al coūtres wher the infection came, which thīg we se doth not chāce. For touching the first reasō, we se this sweting sicknes or pestilēt *Ephemera*, to be oft in Englād, but neuer entreth Scotland, (except the borders) albeit thei both be ioinctly within the cōpas of on sea. The same begining here, hath assailed Brabant & the costes nigh to it, but neuer passed Germany, where ones it was in like faciō as here,

with great mortalitie, in the yere m.d.xxix. Cause wherof none other there is naturall, then the euell diet of these thre contries whiche destroy more meates and drynckes withoute al ordre, cōueniēt time, reasō, or necessite, thē either Scotlande, or all other countries vnder the sunne, to the greate annoiance of their owne bodies and wittes, hinderance of theim which have nede, and great dearth and scarcitie in their cōmon welthes. Wherfore if *Esculapius* the inuentour of phisike, y^e^ sauer of mē from death, and restorer to life, should returne again īto this world, he could not saue these sortes of men, hauing so moche sweatyng stuffe, so many euill humoures laid vp in store, frō this displeasante, feareful, & pestilent disease: except thei would learne a new lesson, & folowe a new trade. For other wise, neither the auoidyng of this countrie (the seconde reason) nor fleyng into others, (a commune refuge in other diseases) wyll preserue vs Englishe men, as in this laste sweate is by experience well proued in Cales, Antwerpe, and other places of Brabant, wher only our contrimen ware sicke, & none others, except one or ii. others of thenglishe diete, which is also to be noted. The cause hereof natural is onely this, that they caried ouer with thē, & by lyke diete ther incresed that whiche was the cause of their disease. Wherefore lette vs asserteine our selues, that in what soeuer contrie lyke cause and matter is, there commyng like aier and cause efficient, wil make lyke effecte and disease in persōs of agreable complexions, age, and diete, if the tyme also doe serue to these same, and in none others. These I putte, for that the tyme of the yere hote, makethe moche to the malice of the disease, in openynge the pores of the body, lettynge in the euill aier, resoluynge the humores and makynge them flowable, and disposing therfore the spirites accordyngly, besyde, that (as I shewed in the first cause of this pestilente sweate) it stirreth and draweth out of the erthe euill exhalations and mistes, to thinfection of the aier and displeasure of vs. Diet I put, for that they of the contrarie diete be not troubled with it at all. Age and complexion, for this, that although it spareth nō age of bothe kyndes, nor no complexion but some it touchethe, yet for the most parte (wherby rules and reasones be alwayes to be made) it vexed theim of the middle age, beste luste, and theim not moch vnder that, and of complexions hote & moiste, as fitteste by their naughty & moche subtiltie of blode to fede the spirites: or nigh and lyke to thesame in some one of the qualities, as cholerike in hete, phlegmatike in moister, excepte thother their qualities, as drinesse in cholerike, & cold in phlegmatike, by great dominion ouer thother, did lette. For the clene contrarie complexiōs to the infected aier, alwaies remaine helthful, saulfe and better then tofore, the corrupte and infected aier notwithstandyng. Therfore cold and drie persones either it touched not at all, or very fewe, and that wyth no danger: such I say as beside their complexion, (whiche is so harde to finde in any man exacte and simple, as exacte helthes) were annoied with some corrupt humoures & spirites, & therfore mete by so moch to receiue it, & that by good reasō. For nothing can naturally haue power to do ought against any thing, excepte the same haue in it selfe a disposicion by like qualities to receiue it. As the cause in the fote cānot trouble the flank and leue the knee (the mean betwixte) except there were a greater consent and likenes of nature in sufferance (whiche we call *sympathian*) betwixte those then thother. Nor fire refusynge stones, canne burne hardes, strawe, stickes and charcole, oile, waxe, fatte, and seacole, except these same first of al wer apte, and by conuenient qualities disposed to be enflamed and burned. Nor any man goeth about to burne water, because the qualities thereof be contrary, and the body vndisposed to the like of fire. By whiche reason it

may also be perceiued, that y^e^ venemouse qualitie of this corrupt aire is hote and moiste, for it redily enfectethe the lyke complexions, and those nigh vnto theim, and the contrary not at all, or hardly : & easely doth putrify, as doe the Southe wyndes. Therfore next vnto those colde and drie cõplexions, olde men escaped free, as like to theim by age : and children, as voide of replecion consumed by their great hete, and therefore alwaies redy to eate. But in this disease the subtile humour euill and abundant in full bodies fedyng y^e^ spirites, is more to be noted then the humour complexional, whiche notwithstanding, as an helper or hinderer to y^e^ same, is not to be neglected. For els it should be in all contries and persones indifferently, wher all complexiones be. The thirde and laste reason is, y^t^ they which had thys sweat sore with perille or death, were either men of welthe, ease, & welfare, or of the poorer sorte such as wer idls persones, good ale drinkers, and Tauerne haunters. For these, by y^e^ great welfare of the one sorte, and large drinkyng of thother, heped vp in their bodies moche euill matter : by their ease and idlenes, coulde not waste and consume it. A confirmacion of this is, that the laborouse and thinne dieted people, either had it not, because they dyd eate but litle to make the matter : or with no greate grefe and danger, because they laboured out moche thereof. Wherefore vpon small cause, necessarily must folowe a smal effecte. All these reasones go to this ende, that persones of all contries of moderate and good diete, escape thys Englishe *Ephemera*, and those be onely vexed therewith, whiche be of immoderate and euill diete. But why ? for the euill humores and corrupte aier alone ? No, for thē the pestilence and not the swet should rise. For what then ? For y^e^ impure spirites corrupte in theim selues and by the infectiue aier. Why so ? for that of impure and corrupte humores, whether thei be blode or others, can rise none other then impure spirites. For euery thynge is suche as that whereof it commeth. Now, that of the beste and fineste of the blode, yea in corrupte bodies (whyche beste is nought) these spirites be ingendred and fedde, I before expressed. Therfor who wyl haue them pure and cleane, and him selfe free from sweat, muste kepe a pure and cleane diete, and then he shalbe sure.

The preseruacion.—Infection by the aier, and impure spirites by repletion thus founde and declared to be the causes of this pestilente sweate or Englishe *ephemera*, lette vs nowe see howe we maye preserue our selues from it, and howe it may be remedied, if it chaunce, wyth lesse mortalitie. I wyll begynne wyth preseruation. That most of all dothe stande in auoidyng the causes to come of the disease, the thinges helping forward the same, and remouyng that whiche is alredy had & gotten. Al be done by the good order of thynges perteynyng to the state of the body. Therfore I will begin with diete where I lefte, & then go furth with aier where I beganne in treatyng the causes, and declare the waie to auoide infection, and so furthe to the reste in order. Who that lustethe to lyue in quiete suretie, out of the sodaine danger of this Englishe *ephemera*, he aboue all thynges, of litle and good muste eate & spare not, the laste parte wherof wyl please well (I doubt not) vs Englishe men : the firste I thinke neuer a deale. Yet it must please theim that entende to lyue without the reche of this disease. So doyng, they shall easely escape it. For of that is good, can be engendred no euill : of that is litle, can be gathered no great store. Therfore helthful must he nedes be and free from this disease, that vsethe this kinde of liuynge and maner in dietynge. An example hereof may the wise man *Socrates* be, which by this sorte of diete escaped a sore pestilence in Athenes, neuer fleynge ne kepyng close him selfe from the same.

Truly who will lyue accordynge to nature and not to lust, may with this diete be well contented. For nature is pleased with a litle, nor seketh other then that the mind voide of cares and feares may be in quiete merily, and the body voide of grefe, maye be in life swetly, as *Lucretius* writeth. Here at large to ronne out vntill my breth wer spent, as vpon a common place, against y^e^ intemperāce or excessiue diete of Englande, thincommodities & displeasures of the same many waies: and contrarie, in commēdation of meane diete and temperance (called of *Plato sophrosyne*, for that it cōserneth wisdome) and the thousande commodities therof, both for helthe, welthe, witte, and longe life, well I might, & lose my laboure: such be our Englishe facions rather then reasones. But for that I purpose neither to wright a longe worke but a shorte counseill, nor to wery the reders with that they luste not to here, I will lette that passe, and moue thē that desire further to knowe my mynde therin, to remember that I sayd before, of litle & good eate and spare not, wherby they shall easely perceiue my meanyng. I therefore go furth with my diete, wherin my counseill is, that the meates be helthfull, and holsomly kylled, swetly saued, and wel prepared in rostyng, sethyng, baking, & so furth. The bred, of swet corne, wel leuened, and so baked. The drinke of swete malte and good water kyndly brued, without other drosse nowe a daies vsed. No wine in all the tyme of sweatyng, excepte to suche whose sickenes require it for medicin, for fere of inflamynge & openynge, nor except y^e^ halfe be wel soden water. In other tymes, old, pure, & smal. Wishīg for the better executiō hereof & ouersight of good and helthsome victalles, ther wer appointed certein masters of helth in euery citie and toune, as there is in Italie, whiche for the good order in all thynges, maye be in al places an example. The meates I would to be veale, muttone, kidde, olde lambe, chikyn, capone, henne, cocke, pertriche, phesane, felfare, smal birdes, pigeon, yong pecockes, whose fleshe by a certeine natural & secrete propertie neuer putrefie, as hath bene proued. Conies, porke of meane age, neither fatte nor leane, the skynne takē awaye, roste, & eatē colde: Tartes of prunes, gelies of veale & capone. Yong befe in this case a litle poudered is not to be dispraised, nor new egges & good milke. Butter in a mornyng with sage and rewe fastynge in the sweatynge tyme, is a good preseruatiue, beside that it nourisheth. Crabbes, crauesses, picrel, perche, ruffe, gogion, lampreis out of grauelly riuers, smeltes, dace, barbell, gornerd, whityng, soles, flunders, plaice, millers thumbes, minues, w^t^ such others, sodde in water & vinegre w^t^ rosemary time, sage, & hole maces, & serued hote. Yea swete salte fishe and linge, for the saltes sake wastynge y^e^ humores therof, which in many freshe fishes remaine, maye be allowed well watered to thē that haue none other, & wel lyke it. Nor all fishes, no more then al fleshes be so euil as they be takē for: as is wel declared in physik, & approued by the olde and wise romaines moche in their fisshes, lusty chartusianes neuer in fleshes, & helthful poore people more in fishe then fleshe. But we are nowe a daies so vnwisely fine, and womanly delicate, that we may in no wise touch a fisshe. The olde manly hardnes, stoute courage, & peinfulnes of Englande is vtterly driuen awaye, in the stede wherof, men now a daies recieve womanlines, & become nice, not able to withstande a blaste of wynde, or resiste a poore fishe. And children be so brought vp, that if they be not all daie by the fire with a toste and butire, and in their furres, they be streight sicke.

Sauces to metes I appoint firste aboue all thynges good appetite, and next Oliues, capers, iuse of lemones, Barberies, Pomegranetes, Orenges and

Sorel, veriuse, & vineigre, iuse of vnripe Grapes, thepes or Goseberies. After mete, quinces, or marmalade, Pomegranates, Orenges sliced eaten with Suger, Succate of the pilles or barkes therof, and of pomecitres, olde apples and peres, Prunes, Reisons, Dates & Nuttes. Figges also, so they be taken before diner, els no frutes of that yere, nor rawe herbes or rotes in sallattes, for that in suche times they be suspected to be partakers also of the enfected aire.

Of aire so much I haue spoken before, as apperteinethe to the declaration of enfection therby. Nowe I wyl aduise and counseill howe to kepe the same pure, for somoche as may be, or lesse enfected, and correcte the same corrupte. The first is done in takynge a way y^e^ causes of enfectiō. The seconde, by doynge in all pointes the contrary thereto. Take awaye the causes we maye, in damnyng diches, auoidynge cariōs, lettyng in open aire, shunning suche euil mistes as befōre I spake of, not openynge or sturrynge euill brethynge places, landynge muddy and rottē groundes, burieng dede bodyes, kepyng canelles cleane, sinkes & easyng places sweat, remouynge dongehilles, boxe and euil sauouryng thynges, enhabitynge high & open places, close towarde the sowthe, shutte toward the winde, as reason wil & thexperience of *M. varro* in the pestilēce at *Corcyra* confirmethe. Correcte in doyng the contrary we shall, in dryenge the moiste with fyres, either in houses or chambers, or on that side the cities, townes, & houses, that lieth toward the infection and wynde commyng together, chefely in mornynges & eueninges, either by burnyng the stubble in the felde, or windfallynges in the woodes, or other wise at pleasure. By which policie skilful *Acron* deliuered Athenes in *Gretia*, and diuine *Hippocrates abderā in Thratia* frō y^e^ pestilēce, & preserued frō the same other the cities in *Grece*, at diuerse times cōyng with the wynde frō *æthiopia*, *illyria & pæonia*, by putting to the fires wel smelling garlādes, floures & odoures, as *Galene* and *Soranus* write. Of like pollicie for purgyng the aier were the bonfires made (as I suppose) frō long time hetherto vsed in y^e^ middes of sommer, and not onely for vigiles. In cōfortyng the spirites also, and by alterynge the aier with swete odoures of roses, swet perfumes of the same, rosemary leaues, baies, and white sanders cutte, afewe cloues steped in rose water and vinegre rosate, the infection shalbe lesse noious. With the same you maye also make you a swete house in castynge it abrode therin, if firste by auoidynge the russhes and duste, you make the house clene. Haue alwaies in your handcercher for your nose and mouth, bothe with in your house and without, either the perfume before saide, or vinegre rosate: and in your mouth a pece either of setwel, or of the rote of *enula campana* wel steped before in vinegre rosate, a mace, or berie of Juniper. In wante of suche perfumes as is beforesaide, take of mirrhe & drie rose leues of eche a lyke quantite, with a little franke encense, for the like purpose, and caste it vpon the coles: or burne Juniper & their beries. And for so moche as clenelines is a great help to helthe, mine aduise is, that all your clothes be swete smellynge and clene, and that you wasshe your handes and face not in warme water, but with rose water and vinegre rosate colde, or elles with the faire water and vinegre wherein the pilles or barkes of orenges and pomegranates are sodden: or the pilles of pomecitres & sorel is boiled: for so you shalle close the pores ayenst the ayre, that it redily entre not, and cole and tempre those partes so wasshed, accordynge to the right entente in curynge this disease. For in al the discurse, preseruatiō, and cure of thys disease, the chefe marke & purpose is, to minister suche thynges as of their nature haue the facultie by colyng dryenge and closyng, to resiste putrefaction, strength and defende the spirites, comforte the harte, and kepe all

the body ayenst the displeasure of the corrupte aire. Wherfor it shal be wel done, if you take of this cōposition folowyng euery mornyng the weight of ij. d. in vi. sponefulles of water or iuleppe of Sorel, & cast it vpon your meate as pepper. ℞ seīs citri. acetos. ros. rub. sādal. citrin. ān. ʒ i, boli armeni oriētal. ʒ i. s, terr. sigil. ʒ s, margarit. ʒ i, fol. auri puri. nº. iiij, misce. & f. pul. diuidatur ad pōd. ʒ s. Or in the stede of this, take fasting the quantitie of a small bene of *Mithridatum* or Uenice triacle in a sponeful of Sorel, or Scabious water, or by the selfe alone. And in goyng abrode, haue in youre hande either an handekercher with vinegre and rose water, or a litle muske balle of nutmegges, maces, cloues, saffrō, & cinamome, of eche the weight of ij. d. finely beatē; of mastike the weight of ij. d. ob. of storax, v. d. of ladane x. d. of Ambre grise vi. graines, of Muske iii. graines dissolued in ryght Muscadel: temper al together, & make a balle. In want of *Mithridatum* or suche other as I haue before mencioned, vse dayly the Sirupes of Pomegranates, Lemones, and Sorell, of eche half an vnce, with asmuche of the watres of Tormentille, Sorell, and Dragones, fasting in the morning, and one houre before supper. A toste in vinegre or veriuse of Grapes, with a litle poulder of Cinamome and Settewelle caste vppon it. Or two figges with one nutte carnelle, and tenne leaues of rue in eche, and a litle salt. Or boutire, rue, and sage, with breade in a morning eaten nexte your harte, be as good preseruatiues, as theie be easye to be hadde. These preseruatives I here appoincte the more willingly among many others further to be fetched, because these maye easelier be hadde, as at hande in niede, which now to finde is my most endeuour, as moste fruictfulle to whome I write. And this to be done I counsaille in the sickenesse tyme, when firste you heare it to be comming and begonne, but not in the fitte. Alwayes remembryng, not to go out fastinge. For as *Cornelius Celsus* wrytethe, Uenime or infection taketh holde muche soner in a bodye yet fasting, then in the same not fastinge. Yet this is not so to be vnderstande, that in the mornynge we shal streight as our clothes be on, stuffe our bellies as fulle as Englishe menne, (as the Frenche man saieth to our shames.) but to be contente with oure preseruatiues, or with a little meate bothe at breakefaste (if custome and nede so require) dynner and supper. For other wise nature, if the disease shoulde take vs, shoulde haue more a doe aganiste the full bealy and fearce disease, then it were able to susteyne.

Aftre diete and ayer followethe filling or emptieng. Of filling in the name of repletiō I spake before. Of ēptieng, I will now shortely write as of a thing very necessary for the conseruation of mannes healthe. For if that whiche is euel within, be not by good meanes & wayes wel fet oute, it often times destroyeth the lyfe. Good meanes to fet out the euelle stuffe of the body be two, abstinence, & auoydance.

Abstinence, in eatynge and drinckynge litle, as a lytle before I sayed, and seldome. For so, more goeth awaie then comethe, and by litle and litle it wasteth the humours & drieth. Therfore (as I wiene) throughe the counseil of Phisike, & by the good ciuile, & politique ordres, tēdring the wealth of many so much geuē to their bellies to their own hurtes & damages, not able for wāt of reasō to rule thē selues, & therby enclined to al vices and diseases: for thauoiding of these same, increase of vertue, witte and health, sauing victualles, making plenty, auoyding lothesomenesse or wearinesse, by chaunge, in taking sometime of that in the sea, and not alwaies destroieng yᵗ of the lande, an ordre (without the whiche nothing can stand) and comon wealth, dayes of abstinence, and fasting were firste made, and not for religion onely.

Auoidance, because it cānot be safely done withoute the healpe of a good Phisicien, I let passe here, expressing howe it shoulde bee done duelye accordinge to the nature of the disease and the estate of the personne, in an other booke made by me in Latine, vppon this same matter and disease. Who therfore lusteth to see more, let him loke vpon that boke. Yet here thus much wil I say, that if after euacuation or auoiding of humors, the pores of the skinne remaine close, and y^e^ sweating excrement in the fleshe continueth grosse (whiche thinge howe to know, hereafter I will declare) then rubbe you the person meanly at home, & bathe him in faire water sodden with Fenel, Chamemil, Rosemarye, Mallowes, & Lauendre, & last of al, powre water half colde ouer al his body, and so dry him, & clothe him. Al these be to be don a litle before y^e^ end of y^e^ spring, that the humours may be seatled, and at rest, before the time of the sweting, whiche cometh comonly in somer, if it cometh at al. For the tormoiling of the body in that time when it ought to be most quiete, at rest, and armed against his enemy, liketh me not beste here, no more then in the pestilence. Yet for the presente nede, if it be so thoughte good to a learned and discrete Phisicien, I condescend the rather. For as in thys, so in alle others before rehearsed, I remytte you to the discretion of a learned manne in phisike, who maye iudge what is to be done, and how, according to the present estate of youre bodies, nature, custome, and proprety, age, strength, delyghte and qualitie, tyme of the yeare, with other circumstaunces, and thereafter to geue the quantitie, and make diuersitie of hys medicine. Other wise loke not to receiue by this boke that good which I entend, but that euel which by your owne foly you vndiscretelye bring. For good counseil may be abused. And for me to write of euery particular estate and case, whiche be so manye as there be menne, were so great almost a busines, as to numbre the sandes in the sea. Therfore seke you out a good Phisicien, and knowen to haue skille, and at the leaste be so good to your bodies, as you are to your hosen or shoes, for the wel making or mending wherof, I doubt not but you wil diligently searche out who is knowē to be the best hosier or shoemaker in the place where you dwelle: and flie the vnlearned as a pestilence in a comune wealth. As simple women, carpenters, pewterers, brasiers, sopeballesellers, pulters, hostellers, painters, apotecaries (otherwise then for their drogges), auaunters thē selues to come from Pole, Constantinople, Italie, Almaine, Spaine, Fraunce, Grece and Turkie, Inde, Egipt or Jury: from y^e^ seruice of Emperoures, kinges & quienes, promising helpe of al diseases, yea vncurable, with one or twoo drinckes, by waters sixe monethes in continualle distillinge, by *Aurum potabile*, or *quintessence*, by drynckes of great and hygh prices, as though thei were made of the sūne, moone, or sterres, by blessynges and Blowinges, Hipocriticalle prayenges, and foolysh smokynges of shirtes Smockes and kerchieffes, wyth suche others theire phantasies, and mockeryes, meaninge nothinge els but to abuse your light belieue, and scorne you behind your backes with their medicines (so filthie, that I am ashamed to name theim) for your single wit and simple belief, in trusting thē most, whiche you know not at al, and vnderstād least: like to them whiche thinke, farre foules haue faire fethers, althoughe thei be neuer so euel fauoured & foule: as thoughe there coulde not be so conning an Englishman, as a foolish running stranger, (of others I speake not) or so perfect helth by honest learning, as by deceiptfull ignorance. For in the erroure of these vnlerned, reasteth the losse of your honest estimation, diere bloudde, precious spirites, and swiete lyfe, the thyng of most estimation and price in this worlde, next vnto the immortal soule.

For consuming of euel matter withine, and for making our bodies lustye, galiard, & helthful, I do not a litle cōmende exercise, whiche in vs Englishe men I allowe quick, and liuishe: as to runne after houndes and haukes, to shote, wrastle, play at Tēnes and weapons, tosse the winde balle, skirmishe at base (an exercise for a gentlemanne, muche vsed among the Italianes,) and vaughting vpon an horse. Bowling, a good excercise for women: castinge of the barre and camping, I accompt rather a laming of legges, then an exercise. Yet I vtterly reproue theim not, if the hurt may be auoyded. For these a conueniente tyme is, before meate: due measure, reasonable sweatinge, in al times of the yeare, sauing in the sweatinge tyme. In the whiche I allow rather quietnesse then exercise, for opening the body, in suche persons specially as be liberally & freely brought vp. Others, except sitting artificers, haue theire exercises by daily labours in their occupatiōs, to whom nothing niedeth but solace onely, a thing conuenient for euery bodye that lusteth to liue in helth. For els as nō other thing, so not healthe canne be longe durable. Thus I speake of solace, that I meane not Idlenesse, wisshing alwayes no man to be idle, but to be occupied in some honest kinde of thing necessary in a cōmon welth. For I accompt thē not worthi meate & drink in a cōmō welth, y^{t} be not good for some purpose or seruice therin, but take thē rather as burdennes vnprofitable and heauye to the yearth, men borne to fille a numbre only, and wast the frutes whiche therthe doeth grue, willing soner to fiede the Lacedemonians old & croked asse, whiche labored for the liuing so long as it coulde for age, then suche an idle Englisshe manne. If the honestye and profite of honeste labour and exercise, conseruation of healthe, preseruation from sickenesse, maintenaunce of lyfe, aduancement, safety from shamefull deathes, defence from beggerye, dyspleasures by idlenesse, shamefulle diseases by the same, hatefulle vices, and punishemente of the immortalle soule, canne not moue vs to reasonable laboure and excercise, and to be profitable membres of the commune welthe, let at the least shame moue vs, seyng that other country menne, of nought, by their owne witte, diligence, labour and actiuitie, can picke oute of a cast bone, a wrethen strawe, a lyghte fether, or an hard stone, an honeste lyuinge: Nor ye shal euer heare theym say, alas master, I haue nō occupaciō, I must either begge or steale. For they can finde other meanes betwene these two. And forsomuche as in the case that nowe is, miserable persons are to be relieued in a cōmon welth, I would wisshe for not fauouring the idle, the discretion of *Marc. Cicero* the romaine were vsed in healping them: Who wolde compassion should be shewed vpon them, whome necessitie compelled to do or make a faute: & no cōpassion vpon them, in whome a faulte made necessitie. A faulte maketh necessitie, in this case of begging, in them, whyche might laboure and serue, & wil not for idlenes: and therfore not to be pitied, but rather to be punished. Necessitie maketh a fault in thē, whiche wold labor and serue, but cānot for age, īpotēcy, or sickenes, and therfore to be pitied & relieued. But to auoyde punishmente & to shew the waye to amendmente, I would again wishe, y^{t} forsomuch as we be so euel disposed of our selfes to our own profites and comodities with out help, this old law were renued, which forbiddeth the nedy & impotent parentes, to be releued of those their welthi chyldren, that by theym or theire meanes were not broughte vppe, eyther in good learning and Science, or honeste occupation. For so is a man withoute science, as a realme withoute a kyng. Thus muche of exercise, and for exercise. To the which I wolde now ioyne honeste companye betwene man and woman, as a parte of natural exercise, and healpe to y^{e} emptieng &

lightning the bodye in other tymes allowed, in this sweating tyme for helthes sake, & for feare of opening the bodye, and resoluing the spirites, not approued, but for dout, that w^t^ lengthing the boke, I shold wery y^e^ reader. Therfore I let y^t^ passe & come to sleping & waking, whiche without good ordre, be gretly hurtful to the bodie. For auoiding the whiche, I take the meane to be best, and against this sweat moste commendable. But if by excesse a man must in eyther part offend, I permit rather to watch to muche, then to lie in bedde to longe: so that in watchinge, there be no way to surfetting. Al these thinges duely obserued, and well executed, whiche before I haue for preseruation mencioned, if more ouer we can sette a parte al affections, as fretting cares & thoughtes, dolefull or sorowfull imaginations, vaine feares, folysh loues, gnawing hates, and geue oure selues to lyue quietly, frendlie, & merily one with an outher, as men were wont to do in the old world, whē this countrie was called merye Englande, and euery man to medle in his own matters, thinking theim sufficient, as thei do in Italye, and auoyde malyce and dissencion, the destruction of commune wealthes, and priuate houses: I doubte not but we shall preserue oure selues, bothe from this sweatinge syckenesse, and other diseases also not here purposed to be spoken of.

The cure or remedy.—But if in leauinge a parte these or some of them, or negligently executing them, it chaunceth the disease of sweating to trouble our bodies, then passinge the bondes and compasse of preseruation, we must come to curation, the way to remedie the disease, & the third and last parte (as I first sayed) to be entreated in this boke. The principalle entente herof, is to let out the venime by sweate accordinge to the course of nature. This is brought to passe safely two waies, by suffring and seruing handsomly nature, if it thruste it oute readily and kindely: and helping nature, if it be letted, or be weake in expellinge. Serue nature we shall, if in what time so euer it taketh vs, or what so euer estate, we streyghte lay vs downe vppon oure bedde, yf we be vp and in oure clothes, not takyinge them of: or lie stille, if we be in bed out of our clothes, laiyng on clothes both wayes, if we wante, reasonably, and not loadinge vs therewith vnmeasurably. Thus layed and couered, we must endeuoure our selues so to continue wyth al quietnes, & for so much as may be without feare, distruste, or faintehartednesse, an euel thinge in al diseases. For suche surrendre and geue ouer to the disease without resistence. By whiche occasion manye more died in the fyrste pestilence at *Athenes*, that I spake of in the beginnynge of thys boke, then other wyse should. Oure kepers, friendes and louers, muste also endeuoure theym selues to be handesome and dilygente aboute vs, to serue vs redilye at al turnes, and neuer to leaue vs duringe foure and twentie houres, but to loke welle vnto vs, that neyther we caste of oure clothes, nor thruste out hande or foote, duryng the space of the saide foure and twenty houres. For albeit the greate daungere be paste after twelue houres, or fourtene, the laste of trial, yet many die aftre by to muche boldenes, when thei thinke theim selues most in suretye, or negligence in attendaunce, when they thinke no necessitie. Wherby it is proued that without dout, the handsome diligence, or carelesse negligence, is the sauing, or casting awaye of many. If ij. be taken in one bed, let theym so continue, althoughe it be to their vnquietnesse. For feare wherof, & for the more quietnesse & safetye, very good it is duryng all the sweating time, that two persones lye not in one bed. If with this quietnes, diligēce, and ordre, the sicke do kindelye sweate, suffre them so to continue, without meate all the xxiiij. houres: without drincke, vntil the fifth houre, if it maie be. Alwayes taking hede to theim

in the fourth, seuenth, nineth, & eleuenth houres speciallye, and fourteenth also, as the laste of triall and daungier, but of lesse in bothe. For these be most perilous, as I haue obserued this yere in this disease, hauing y^e^ houres iudicial, as others haue theire dayes, and therfore worse to geue anye thinge in, for troublyng nature standyng in trialle. Yet wher more daunger is in forbearyng then in takyng, I counseill not to spare in these howres to do as the case requireth with wisdome & discretion, but lesse then in other howres. In the fifthe howre geue theim to drinke clarified ale made only doulcet with a litle suger, out of a cruet, or glasse made in cruet facion, with a nebbe, for feare of raisynge theim selues to receiue the drinke offered, & so to let the sweat, by the ayer strikyng in. But if the sicke on this wise beforesaid cānot sweate kyndly, then nature must be holpen, as I sayd before. And for so moch as sweat is letted in this disease fower waies, by disorder, wekenes of nature, closenes of the pores in the skinne, & grosnes of the humoures: my counseil is to auoide disorder by suche meanes as hetherto I haue taught, and next to open the pores if they be close, and make thinne the matter, if it be grosse, and prouoke sweat, if nature be weke. Those you shal doe by gentle rubbynges, this by warme drinckes as hereafter streight I will declare. And for that euery man hath not the knowlege to discerne which of these is the cause of let in sweatyng, I wil shewe you plainly howe to do with moste suretie and leste offense. I wyll beginne with wekenes of nature. Therefore remember well that in treatynge the causes of this disease, I sayed that this sweate chauncethe cōmonly in theim of the mydde age and beste luste, the infection hauyng a certein concordance, or conuenience with the corrupte spirites of theim more then others. Knowe agayne that nature is weke, ij. waies, either in the selfe, or by the annoiance of an other. In the selfe, by wante of strength consumed by sicknes or other wise. By annoiaunce of an other, when nature is so ouerlaid with the quantitie of euill humours that it can not stirre. Betwene thes two set youre witte, and se whether the persō be lustye or sickly. If he be lustye, vnderstande that the sweat doth not stoppe for wekenes of nature in it selfe. Then of necessitie it must be for some of thother causes. But for whiche, thus knowe. Consider whether the lusty person were in foretyme geuen to moche drynkyng, eatyng and rauenyng, to moch ease, to no exercise or bathinges in his helth, or no. If all these you finde in him, knowe that bothe nature is wekened by the annoiance of the humoures, and that the skinne is stopped, and the humoure grosse, and that for thys the sweate is letted. If you finde onely some of these, and that rauenynge, annoiance is the cause. If want of exercise or bathinges, stoppinges of the pores and closenesse, or grosenes of humours, or bothe, be the cause of not sweatying. On the othersyde, if the persō be sickely, it is easely knowē that his wekenes consisteth in nature the self. And for so moche as weke folkes and sicke shal also by other causes not sweate, consider if in his sickenes he hath swette moche or no, or hath bē disposed to it and coulde not. If he neither hath swette, nor coulde sweat disposed, knowe that closenes of the skinne, and grosenes of the humour is the cause. Therfore euery thing in his kynde muste be remedied, Wekenes of nature, by drinkes prouokyng sweate: closenes, & grosenes, by rubbynge, as I said. But be ware neither to rubbe or geue drinkes, excepte you see cause as beforesayd. For other wise, the one hindrethe nature, and thother letteth out the spirites & wasteth y^e^ strength. Therefore accordyngly, if rubbe you must, geue to the sicke in to their beddes a newe and somewhat harde kerchefe, well warmed but not hote, and bydde theim rubbe all their bodies ouer therewith vnder the

clothes, neither to moche neither to litle, nor to harde or to softe, but meanely betwene, takyng you hede whiche be aboute them, that by stirrynge their armes they raise not the clothes to let in the ayer. This done, if case so require, geue thē a good draught of hote possette ale made of swiete milke turned with vinegre, in a quarte wherof percely, and sage, of eche haulfe one litle handfull hath been sodden, wyth iii. sliftes of rosemary, ii. fenel rootes cutte, and a fewe hole maces. Alwaies remembrynge here, as in other places of this boke, to heate the herbes in a peuter dishe before the fyre, or washe theim in hote water, before you putte them in to the posset ale, and that you putte their to no colde herbes at any tyme durynge the hole fitte. Or geue theim posset ale hote with rosemary, dittane, & germander. Or baie beries, anise seades, & calamintes with claret wine sodden and dronke warme. Or white wine with hore and wilde tansy growen in medes sodden therin, and ii. d. weight of good triacle, dronke hote, or in y^e^ stede of that, wilde tanesy, mogwort or feuerfue. These prouoke sweat, may easely be hadde, & be metest for thē which haue al y^e^ causes beforesayde of lettyng thesame. But specially if for colde and grose humoures, or for closenes of the skinne, the sweate commethe not furthe. If with one draught they sweate not, geue theim one other, or ij. successiuely, after halfe one houre betwene, and encrease the clothes, first a litle aboue the meane, after, more or lesse as the cause requireth, & make a litle fire in the chamber of clene woode, as ashe & oke, with the perfume of bdellium: or swiet woode, as Juniper, fyrre, or pine, by theimselues: remembrynge to withdrawe the fire, when they sweat fully, and the clothes aboue the meane, by litle and litle as you laide theim on, when they firste complaine of faintyng. And after xii. or xiiii. houres, some also of the meane, but one after an other by halfe one houre successiuely with discrecion, alwaies not lokyng so moche to the quantitie of the sweat, as what the sicke may saufely beare. And in suche case of faintynge, suffer competent open aier to come into the chamber, if the same and the wether be hote, for smoderynge the pacient, by suche windowes as the wynde liethe not in, nor openeth to the south. Put to their noses to smell vinegre and rose water in an handkercher, not touchynge theim there with so nighe as maye be. Cause theim to lie on their right side, and bowe theim selues forward, call theim by their names, and beate theim with a rosemary braunche, or some other swete like thynge. In the stede of posset ale, they whiche be troubled with gowtes, dropsies, reumes, or suche other moiste euill diseases, chauncing to sweat, may drinke a good draught of the stronger drinke of *Guaiacum* so hote as they can, for the lyke effecte, as also others may, not hauynge these deseases, if it be so redy to theim as the other. After they ones sweat fully, myne aduise is not to geue any more posset ale, but clarified ale with suger, duryng the hole fitte, neither vnreasonably, nor so ofte as they call for it, neither yet pinchyng theym to moche when they haue nede, alwayes takynge hede not to putte any colde thynge in their mouthe to cole and moiste them with, nor any colde water, rose water, or colde vinegre to their face duryng the sweat and one daie after at the leaste, but alwaies vse warmeth accordynge to nature, neuer contrariyng thesame so nighe as may be. If they raue or be phrenetike, putte to their nose thesame odour of rose water & vinegre, to lette the vapoures from the headde. If they slepe, vse theim as in the case of faintyng I said, with betyng theim and callynge theim, pullyng theim by the eares, nose, or here, suffering them in no wise to slepe vntil suche tyme as they haue no luste to slepe, except to a learned mā in phisicke the case appere to beare the contrary. For otherwise the venime in slepe continually runneth inward to y^e^ hart. The contrary hereof we muste

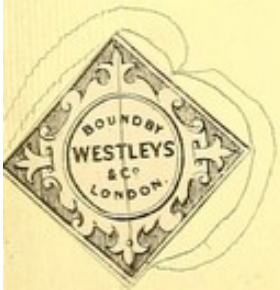
alwaies intende, in prouokyng it outwarde by all meanes duryng the fitte, whyche so longe lasteth in burnynge and sweatyng, as the matter thereof hath any fyrie or apte partes therfore. For as great & strong wine, ale, or bere, so longe do burne as there is matter in theim apte to be burned, and then cesse when that whiche remainethe is come againe to hys firste nature: that is, to suche water clere & vnsauery, as either the bruer receiued of the riuer, or vine of the earth: euen so the body so longe continuethe burnynge and sweatynge, as their is matter apte therefore in the spirites, and then leaueth, when the corrupcion taken of the finest of the euill blode is consumed, and the spirites lefte pure and cleane as they were before the tyme of their corruption.

This done, and the body by sufficient sweate discharged of the venime, the persone is saulfe. But if be by vnrulines & brekyng his sweate, sweateth not sufficiently, thē he is in daunger of death by y^t^ venime that doth remaine, or at the leaste to sweate ones againe or oftener, as many hath done, fallynge in thrise, sixe tymes, yea, xii. times some. If sufficiently the sweate be come, you shal know by the lightnes & cherefulnes of the body, & lanckenes in all partes, by the continuall sweatyng the hole daie and out of all partes, whyche be the beste and holsome sweates. The other which come but by tymes and onely in certein partes, or broken, be not sufficient nor good, but very euill, of whose insufficiency, ij. notes learne: a swellyng in y^e^ partes with a blackenes, & a tinglyng or prickyng in the same. Suche I aduise to appointe theim selues to sweat againe to ridde their bodies of that remaineth, & abide it out vntill they fele their bodies lanke & light, and to moue the sweat as before I said, if thesame come not kyndly by the selfe. If they cānot forbeare meate during y^e^ space of their fitte, and faste out their xxiiij. houres, without danger, geue theim a litle of an alebrie onely, or of a thinne caudel of an egge sodden with one hole mace or ij. If they be forced by nature to ease them selues in the meane time, let them do it rather in warme shetes put into them closely, then to arise. After they haue thus fully swette, conuey closely warme clothes into theyre beddes, and bid them wipe themselues there with in al partes curiouslye: and be ware that no ayer entre into theire open bodies (and speciallye their arme holes, the openest & rarest parte therof) to let the issue of that whych doeth remaine. The lyke may be done in the reste of their fitte, with lyke warenes, for that clenlinesse comfortethe nature, and relieueth the pacient. If in duringe oute the foure and twentye houres there be thought daungiere of death without remouing, rather warme well the other side of the bedde, and wil hym to remoue himself into it, thē to take him vp & remoue hym to an other bed, which in no case mai be done. For better is a doubtful ware hope, then a certeine auentured death. The foure and twenty houres passed duly, they may putte on theire clothes warme, aryse, and refresshe theym selues with a cawdle of an egge swietelye made, or such other meates and sauces reasonably and smally taken, as before I mencioned. And if their strength be sore wasted, let theym smelle to an old swiet apple (as Aristotle did by his reporte in the boke *de pomo*) or hotte new bread, as *Democritus* did, by the record of *Laertius* in his life, either by it self alone, or dipped in wel smelling wyne, as Maluesey or Muscadelle, & sprinckled with the pouder of mintes. Orenges also and Lemones, or suche muske balles as I before described, be thinges mete for this purpose. For as I saied in my ij. litle bokes in Latine *de medendi methodo*, of deuise to cure diseases, there is no thinge more comfortable to the spirites then good and swiet odoures. On this wise aduised how to order your selues in al the time of the fitte, now this remaineth, to exhorte you not to go out of your houses for iij.

dayes, or ij. at the least after the fitte passed, and then wiselye, warely, and not except in a faire bright daye, for feare of swouning after great emptinesse, and vnwont ayer, or for forcyng nature by soubdaine strikyng in of thesame aier, colde, or euil, in to the open body. For nature so forced, maketh often tymes a sore and soubdaine fluxe, as wel after auoidaunce of these humores by sweate, (as was this yere well sene in many persones in diuerse contries of Englande for none other cause) as of others by purgation.

Thus I haue declared the begynning, name, nature, accidentes, signes, causes, preseruations, and cures naturall of this disease the sweatynge sickenes, English *Ephemera*, or pestilent sweate, so shortly & plainly as I could for y^e^ cōmune saufty of my good countrimen, help, relieue, & defence of thesame against y^e^ soubdaine assaultes of the disease, & to satisfie the honeste requeste of my louynge frendes and gentle acquaintance. If other causes ther be supernatural, theim I leue to the diuines to serche, and the diseases thereof to cure, as a matter with out the compasse of my facultie.

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