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OBSERVATIONS

ON

CONTAGION;

AS IT RELATES TO THE PLAGUE AND OTHER

EPIDEMICAL DISEASES;

AND REFERS TO THE

REGULATIONS OF QUARANTINE.

BY A PHYSICIAN.

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OBSERVATIONS, &c.

THE appointment of a Committee of the Honourable House of Commons, for the purpose of examining the validity of the doctrine of Contagion, affords a proper opportunity of submitting to the public, at large, the following remarks on that interesting and important subject.

It would be impertinent to trouble the reader with a long history of the nature and origin of those diseases which, from the earliest period of medical history, have been very generally deemed capable of being communicated by one human being to another; and it is equally unnecessary to enlarge upon the distress, inconvenience, and expense, occasioned by the regulations which have been thought conducive to the prevention of some of these diseases, and denominated the Laws of Quarantine. The former would lead me into a detail but little capable of illustrating the important fact, that we are happily arrived at an era when the proposed investigation affords a prospect of establishing much more rational and consistent ideas than have for-

merly prevailed upon the subject; and the latter are so well known, and have been so generally felt, that amongst the more enlightened classes of society, and in the walks of science, it is quite sufficient to allude to the beneficial consequences which must result from the abolition of the restraints in question, if it shall be established that they are ineffectual and useless.

In the suggestions which the writer begs leave to offer, with great deference to the Legislature, and with becoming respect to the medical faculty and the public, a plain course will be pursued, without presuming to arraign the motives or impeach the judgement of others, but with equal frankness and disinterestedness, and as much delicacy with regard even to prejudices, whether great or unimportant, as is consistent with truth and experience.*

Modern improvements and discoveries in every branch of medicine, and the sciences connected with it, have prepared the way for still farther advances towards perfection; and arguments and reasoning, which a superstitious deference for the sages of antiquity once repressed, may now be brought forward without danger of offending popular opinion.

There was a period when it was thought impious to doubt that the Plague was any other than a divine judge-

* "Con tanta franqueza como imparcialidad, y con tan cauteloso mira-
"miento a los perjuicios de major magnitud, como a los mas frivolos: asi
"como tambien iran conformes con la verdad, buena razon y observaciones
"practicas."—*Discurs. Al Consejo S. De Espan.*

ment to which mankind must bow, without attempting any other relief or remedy than by religious sacrifices: and when a patient submission to the supposed vengeance of offended Heaven was considered the only means which could lawfully be used for appeasing the anger of the Deity, thus especially manifested. When the practice of medicine was at length improved by a more enlarged view of the operations of the animal economy, and the doctrines originally promulgated by Hippocrates had diffused new light upon the intricacy and superstition which, before the days of that great master, had enveloped the liberal sciences, it appears to have been readily conceded to his better founded opinion, that all diseases arise from the impulse of a divine will, and yet are all subject to their proper and natural causes: an enlightened doctrine which pervades his works,* and is equally applicable to the Plague as to any other distemper.

This notion being once established, and the interference of human skill no longer deemed offensive to Divine Providence, some efforts, however rude and unscientific, began to be made, in order to disarm even the most virulent epidemics of their severity, as well as to guard against their occurrence by preventive means. The sick, it is true, were still too often left to perish for want of assistance, but assistance was no longer withholden upon a religious principle,

* ΠΕΡΙ ΙΗΡΗΣ ΝΟΣΟΥ. Sec. iij. p. 85.
ΠΕΡΙ ΑΕΡΩΝ, ΤΑΛΑΤΩΝ, ΤΟΠΩΝ. Sec. iij. p. 75.

and only through fear of the attendants becoming infected by an intercourse with them. How lamentable is the fact, that through succeeding ages an incorrect idea of the true character of such diseases has very generally prevailed! From the time of the Peloponnesian war, down to the present hour, the distress and anguish of the unfortunate victims to that most dreadful disorder the Plague, have been augmented by prejudice and timidity! The sick have been forsaken by their dearest friends, and left miserably to perish,—not only amongst barbarous nations, but in countries blessed with the highest degrees of civilization and the arts, and equally amongst Pagans and Turks, as in those regions in which the pure and rational doctrines of christianity have diffused their happy influence.

The grounds and arguments upon which it has been firmly established in the minds both of physicians and others, that contagion is a necessary constituent of the character of the Plague, are in themselves neither so conclusive, nor so obvious, as to command implicit reverence; but they have derived a great portion of their force and influence from the reputation and rank of their authors. The several legislative enactments which have been, from time to time, founded upon such doctrines, although affording no real proof of their truth or correctness, have also been assumed as the support of both. The deference which every good subject pays to the laws of the country in which he lives, and the respect which he habitu-

ally acquires for the judgement and understanding of those whose province it is to form these laws, have likewise had no small tendency to restrain the freedom of inquiry into the subject now under consideration: and a certain degree of reverence for the sanction which has been given to the generally prevalent opinions on this head, by the countenance of some very much distinguished and very learned members of the medical profession, has also concurred to withhold from the public the benefit of many sagacious and valuable observations which might otherwise have been long ago offered to their consideration.

If it be no longer deemed a kind of sacriligeous violation to unfold the secrets of medicine, and to speak and write freely respecting tenets which were once regarded with awful reverence, it is too often found prejudicial to the interest, the fame, and fortune of those whose philanthropy might have prompted them to such an undertaking, to venture to oppose the avowed and established doctrines of the schools. Of the truth of this observation abundant proofs have been presented even in the present liberal and enlightened age. Thus, every person who has hitherto presumed to oppose the notion of contagion as applicable not only to the Plague, but to many other epidemical and endemial diseases, has invariably incurred a certain degree of odium, as well as exposed himself to hostility. Even the candid Dr. Mead, when speaking of the general opinion of mankind in his time, designates the "very few persons"

who opposed it, as desirous of "distinguishing themselves by singularity." The learned Doctor thought it "strange" that a single individual could entertain any doubt respecting *so obvious a fact!* He thought that the circumstance of the Plague being observed to attack the greater number of persons in the same family, where one had been seized by it, was sufficient to afford conviction that it was contagious! And here let it be remarked, that so perfectly satisfied was the learned author on this head, that he as well as other writers, indifferently uses the terms infection and contagion as if synonymous: a circumstance which is the more extraordinary in Dr. Mead, who often indulged himself in literary criticism, and has, even upon this very subject, thought it worth while to endeavour to rectify the punctuation in a passage which he had cited from a Grecian author, in order to render it applicable to his immediate purpose. This confusion of terms has certainly led to great uncertainty, and very often obscured the subject instead of conveying the true meaning of those who have either copied or imitated Dr. Mead's example. *Contagion*, instead of its legitimate sense, which carries in the very elements of the word an idea of approximation, is not only often used to signify a principle brought from afar, but by a strange metonymy is even tortured into a substitute for the name of a disease; not only confused with infection, but even adopted as a representative of terms which differ essentially both from it and from each other: and it is remarkable that not only Dr. Mead, but many other authors, have thought it a fit expression to stand for *the Plague* itself.*

It will be seen how much this error has contributed to keep up the notion of a mode of communicating the disease, which is at variance with innumerable observations and facts, by preventing those observations and those facts from being clearly and fairly applied to the investigation of the nature of that disease; and by involving the subject in mystery and confusion.

This being premised, as Dr. Mead has been constantly regarded the main supporter of the doctrine of the contagious nature of the Plague; and as the learned Doctor has condensed into one discourse the principal circumstances attending the introduction and communication of that disease in different parts of the world, and at different periods, it may be proper to enter a little more minutely into the arguments which his writings have afforded in support of the principle upon which the Laws of Quarantine were established. The Doctor assumes that the Small Pox is allowed to be contagious, because it usually seizes successively all who hold free communication with the sick. He infers that the Plague must, upon this principle, be infectious (contagious) likewise. This conclusion by no means follows, any more than if he had said, because the Small

* "Contagio suo l'anche appellarsi la pesti."—*Muratori della Peste.*

Pox being received by all persons who have not previously had the disease, when they hold free communication with the infected, and such persons are not afterwards liable to that disorder,—the Plague being in like manner communicated by contagion to those who are about the sick, such persons having once passed through that disease are ever afterwards secure from its infection! The Doctor admits that some persons escape the disease, though constant in their attendance upon the sick, but gets over this apparent difficulty, by "a particular advantage of constitution capable of resisting infection." This is an argument, of which many succeeding writers have availed themselves, upon Dr. Mead's authority, without reflecting,—that the influence of any name, however respectable, is lighter than a feather when weighed in the balance against innumerable facts and daily experience.

Some of these writers seem to be aware of the tender ground on which they had taken their stand, and accordingly endeavoured to shelter themselves from those who might venture to oppose them, by a sort of reluctant admission that the insusceptibility alluded to, was partly constitutional, and partly the effect of the state of the atmosphere or the inactivity of the virus. This has led to some confusion. Whilst in one sentence we are dogmatically told that frequent communication with the infected renders nurses and attendants less and less capable of receiving the disease, we are informed in the next, that in the case

of merchandize brought from infected places, it is a strong presumption either that it be not tainted at all, or that the atmosphere be not favourable to contagion, when those who are employed in handling and removing such goods receive no hurt! Dr. Mead quotes Diemerbroeck to prove that persons removed from a town where the Plague prevailed, were seized with this distemper in the place to which they had gone, soon after the period when the rest of the family left behind, fell sick: which he says certainly would not have happened, unless a communication by letters or otherwise had been kept up between them. In an ordinary or inconsiderate writer such a remark might not have excited much surprise, but in so able and distinguished an author it certainly affords a most cogent reason for weighing with scrupulous attention the force and validity of his reasoning, when we remark so puerile and impotent a conclusion. No proof whatever is afforded by Dr. Mead, or by Diemerbroeck, in the passage to which he has referred, of any such communication; and no remark (however obvious that those who might be inclined to doubt this assumed fact would expect it) has been introduced, respecting the probability that these persons had previously received the infection. No attempt was made to explain the laws of contagion, or to point out the various circumstances by which the progress of the disease might have been accelerated in some of the parties, and retarded in others,—deducible from the state o their respective habits, or in-

fluenced by the condition of the atmosphere, or the vicissitudes of the seasons. They who presumed to doubt or to deny the force of such inconclusive arguments for want of these necessary data, certainly might not deserve the imputation of scepticism, or the charge of affectation and singularity, although they did not readily manifest that exuberant credulity which the greater number of their professional brethren seem to have possessed.

But it should be remembered, that Dr. Mead's opinion carried with it all the weight and importance which a long established reputation for learning, and the advantages of great opulence and distinguished professional celebrity could give.* The Doctor is not to be charged, indeed, with the errors and prejudices of those authors, to whose previously established notions he yielded his assent; but the effect of his writings upon the public opinion in this country having been most extensive and important, they are to be regarded as the standard of medical sentiment down to the present time. Those opinions have for their foundation a plausible, but, when carefully examined, a very fallacious theory. They are unsupported by facts, and they are contradicted by experience and analogy. Let us examine them with a little more freedom. Dr. Mead, and those who have embraced his doctrines, pretend to account for all the appearances of the Plague upon the principle, the

* Ingram's Historical Account of Plagues, p. 9.

favourite principle, of Contagion. Hence it is, says the Doctor, that when the Plague makes its first appearance, although the number of the sick be very small, yet the disease usually affects them in the most violent manner, and is attended by its very worst symptoms. He adds, "if the disease were not produced by contagion, but from some other cause, and its origin were local, *the contrary must happen.*" It does happen. Read the history of the Plague in every narrative of its progress which has yet been published. It will there be found that, like every other epidemical disease, the rise and continuance of this disorder is invariably marked by a gradual, though sometimes rapid, augmentation of virulence.* The infection spreads,—is the common expression: the number of deaths increase: until some atmospherical changes at length taking place, the fatal scourge becomes less and less severe, and altogether disappears.

Dr. Mead's discourse was written by the command of the Secretary of State, and the accompanying regulations were made the basis of certain legislative enactments. The advice originated in alarm, and was acted upon with that degree of promptitude which the apprehensions that had been excited might naturally be supposed to produce in the minds of persons who felt a sincere desire to prevent the miseries which seemed to threaten their country, but who

* Procopii Hist. de Bello Persic. Lib. 2. ch. 22.
Russell's Treatise, p. 211.

were not in any degree the more competent to decide upon the great question which gave rise to the opinions of Dr. Mead and his colleagues.

The Plague, at the period of making the regulations above alluded to, had committed the most shocking ravages at Marseilles, and the public mind in this country had been agitated by the reports of its fatal effects, which spread terror almost universally. Certain modifications of the Quarantine Acts were afterwards agreed upon: that is, as soon as the ferment that had prevailed in the public mind had been a little allayed, and there had been time to reflect upon the distress and difficulty to which the recent enactments might eventually lead. These regulations, which had been originally proposed by Dr. Mead, evince more of alarm than of sound judgement; and although Dr. Russell in his elaborate work expresses his general concurrence with Dr. Mead, both with regard to the nature and origin of the Plague, and the mode of its introduction and communication, that indefatigable author himself has directly contradicted the very principle upon which the whole theory of Dr. Mead was founded, by stating, that the Plague often remains several weeks at the time of its first occurrence at Aleppo, unnoticed or unknown; which could not possibly be the case if its earliest attack were marked, according to the assertion of Mead, by its highest degree of malignity.

It appears, that those to whom the Quarantine Laws owe

their introduction, were more intent upon establishing regulations than disposed to afford information which might have rendered such regulations unnecessary. Their directions to give notice of the occurrence of the Plague were unfortunately destitute of any information with regard to the symptoms by which the disease could be distinguished! Of this defect (whether an error of haste or not is not asserted) Dr. Russell himself complained. It also appears that Dr. Russell, having adopted the opinion of Mead, was less disposed to enter at large into the controversy respecting contagion, than to accumulate historical details of the various political contrivances by which an intercourse with the sick might be effectually prevented. This author declines, he says, to enter fully into the controversy concerning the Plague being a contagious disease, thinking it better to refer to the authors by whom, *in his opinion*, that question had been satisfactorily determined. At the same time he deems it incumbent upon him to advert to the arguments of those who had *opposed* Mead and his doctrine of contagion; and notwithstanding his boast of not having "espoused any hypothesis" respecting the disease, has thought proper to speak of the public being *pestered* with pamphlets by the antagonists of the Doctor's theory, as often as the subject has fallen under the consideration of the Legislature. Dr. Russell has, therefore, most decidedly and deliberately enrolled himself under the banner of Mead; and if his opinions do not go to the full extent of those

which were entertained by that author, they at least appear to be delivered with much hesitation and reluctance, whenever they do not exactly coincide with the established notion respecting contagion. Now, it appears perfectly incomprehensible how it can have happened, if the Plague be communicated by contagion and not otherwise, that it should have been extended in one direction only from the place of its original source, and, according to the hypothesis adopted by Mead, have always travelled from south to west. I shall endeavour to shew, says the Doctor, that the Plague has always the same origin, and as well as the small-pox and measles, is brought from Africa; and, according to the observation of Pliny in his Natural History, always is spread in this direction. Admitting this to be a fact, supported also by other ancient authors, to whom reference is made upon the subject,—and that the Plague at Athens, during the time of the Peloponnesian war, and that which spread through the world in the reign of the Emperor Justinian, had their origin respectively in Ethiopia and at Constantinople;—or even that the Plague at Marseilles was brought thither from Turkey:—Does this at all prove the contagious nature of the disease, when the term be applied and understood according to its proper and accurate signification? Does it not rather confirm and support the rational belief of its atmospherical origin and atmospherical communication? The former not absolutely denied by any, and the latter partially admitted and

assented to, even by those who contend that a certain specific power is required; and a certain degree of communication with the sick, *besides the condition of the air*, to generate and produce the disease.

Mark the language of Hippocrates, who at that early period, which may, with no great degree of impropriety, be deemed the dawn of medical science,—when he calls the attention of his disciples to the necessity of duly regarding the situation of the towns in which epidemical disorders were found to prevail, with regard to the currents of air, the nature and qualities of the water, and the substances employed for food by the inhabitants.

It was not a vain and unfounded boast of that great man, that he had attained to so much accuracy in his prognostics as to be able to foretell, with the utmost precision, what and what kind of diseases would follow upon the blowing from a certain quarter of certain winds at particular seasons. It is well known that he did so: and that he laid the foundation for lasting, and it is scarcely too much to say, universal fame, by having even at an early period of his professional life foretold the approach of the Plague to Greece, and suggested its prevention, chiefly by the use of means by which the state of the atmosphere might be changed from the condition in which he deemed it likely to afford a ready medium for conveying or aggravating the disease.*

* Soranus in Vita Hippocratis.—Ed. Foesii Francofurti, 1595.

It is not to be denied that Hippocrates supposed the Plague to be of foreign original. And this bias has been handed down from generation to generation. So that every where, that which is deemed unfortunate is considered also disgraceful, and diseases like the vices of mankind are always unwillingly owned to be of domestic growth. Thus it is that some of the diseases of America have been attributed to the southern parts of Europe, whilst there are others, which the inhabitants of Europe are often disposed to ascribe to remote quarters of the globe, although generated at home and among themselves. When the Yellow Fever cannot be traced to some individual, whose situation or connexions is favourable to the notions entertained by the medical faculty at Philadelphia or New York, they find no difficulty in laying it down as a fact, not to be contradicted, that the disease has been brought thither in British vessels, or by British subjects.

Why should it be thought incredible, that with regard to diseases as well as in other cases, similar causes are productive of similar effects? From whatsoever cause, or concurrence of causes, the Plague may be generated;—wheresoever and whensoever such cause may happen to arise, or such circumstances of causes to be produced,—the same effect must necessarily be the result. But it is presumed that the hot climates can alone generate this direful disease! or that, although not dependent on heat alone, the seeds of it can there only acquire their virulent

activity.* This notion is like that of the modern fable of the poisonous Upas tree: like that also, it has been eagerly resorted to, for the purpose of supporting a plausible hypothesis, and of gratifying the pride of science, which disdains to leave any thing unaccounted for, that is at all capable of supporting a favourite opinion. It is a similar spirit which is always active in shifting blame from ourselves to others. Other diseases, which evidently and certainly depend upon causes that are at hand, are, with full as much pertinacity as the Plague itself, referred to a remote origin, instead of their true and undoubted source. How common is it for persons to disclaim all knowledge of the plainest and most clearly demonstrable facts, when by doing so, they may remove reflection and disgrace from themselves! Fear and terror, with their constant concomitants, decay of energy and interruption of the means of comfort and gratification, which necessarily ensue upon its being once admitted that a destructive epidemic has made its appearance in a populous town, prompt to concealment as long as possible, and to misrepresentation and subterfuge so long as they can disguise the unfortunate occurrence. But as there can be no proof of the existence of diseases in regions destitute of inhabitants, so neither can positive assertion be controverted where the means of proof are unattainable.

* Blackmore's Discourse upon the Plague, p. 42, 43.

Upon this subject, however, it has been too much the practice of authors to speculate in complex causes. Dr. Mead himself confessed, that "a *corrupted* state of the atmosphere" was necessary to give force to the original germ of the disease, or, as he terms it, "contagious atoms;" or, he observes, it were not easy to conceive how the Plague, when once it had seized any place, should ever cease, until it had completed the destruction of the inhabitants; which, he admits, is readily accounted for, by supposing a favourable change of the qualities of the air, and its restoration to a state capable of destroying or suppressing malignity.* The Doctor even farther allows, that under such circumstances, the particles of contagious (here the word is used by the translator evidently instead of *infectious*) matter are scarcely capable of producing the disease, and may be dissipated without their having had any considerable effect. If the author had proceeded with this chain of reasoning, he must soon have arrived at the conclusion which has been drawn from it by Dr. Russell, † that *without a concurrent state of the air*, even the Plague never is epidemical; or have agreed with Muratori, that the quality of the pestilential poison may, in particular states of

* Mead on the Plague. ch. I.

† "This constitution has been already mentioned frequently; and I have "endeavoured to shew its concurrence to be so *indispensably necessary to* "*spread the infection*, that in Turkey when it happens to be absent, inter"course with infected places is kept up without material consequence." *Russell's Treatise on the Plague*, p. 428.

the wind and vapours, be more or less capable of exerting its influence; or the human body become less sensible of its impression, and more able to resist its activity.*

Experience has shewn, that whether the prevalence of the Plague be for a longer or a shorter period of time, there is little, if any difference in the mode of its termination, in those instances in which the utmost efforts have been used, in order to prevent or interrupt the progress of the disease, to diminish its violence, or guard the inhabitants from intercourse with each other, and in places where no such precautions have been adopted. Thus, at Aleppo, at Marseilles, at Dantzic, and in London (places which with regard to air, water, and almost every other particular, are very differently situated), it can not be denied that, when, what Sydenham denominated a new constitution of the air begins to prevail, the Plague ceases, as it were spontaneously, and wholly disappears.

Of what use, then, are the regulations of Quarantine in such cases? and how otherwise can they be beneficial, unless it were possible to render them subservient, or unless in such a degree as they *can be made* conducive to bring about this desirable atmospherical change? What is the

* "Che tali venti et vapori, senza cangiâr punto la qualità di questo "veleno, cangiassero la costituzion dell' aria, e dè corpi humani di quella "città, onde eglino da lì innanzi non sentissero sì presto nè provassero così "fiero questo crudelissimo morbo, rendendosi disposti a maggiormente re"sistergli."—*Muratori, Lib. 2. p.* 161.

effect of purification, either by ablution, fumigation, or any other means hitherto devised, but that of changing the condition of the atmosphere by which diseased persons and those who are exposed to the causes which produce diseases are surrounded? Does it not then follow of course, and as an obvious conclusion, that if the condition of any given place can be so altered, by any means whatsoever as to render the *fomes* to a disease harmless and effete, or the state of the inhabitants capable of resisting its influence, such means must be considered not only of much more value than any reasoning which has been advanced in favour of the restraints of quarantine, but indeed altogether subversive of it.

It is evident that Russell, who no doubt derived confidence from the attention of the government and the magistracy to suggestions strictly in unison with his own opinions, and the generally received notions of the Plague, felt very reluctant to deny that their well meant and laudable exertions were in truth of less importance than a change in the condition of the atmosphere, over which they had no control; and which, without their interference (so far as relates to restraint and confinement, and the laws of quarantine) would of itself have been completely effectual. But he observes, repeatedly, that a change in the atmosphere is the principal cause of the cessation of the Plague, that this change is sometimes sudden and complete, but that when it is more gradual, the exertions of police, which

he has just before remarked seem to have had nothing to do with the removal of the infection,—are of evident utility and more practicable!

Dr. Sydenham adopted the opinions which had prevailed very generally among his predecessors. Mead followed Sydenham, and having translanted the remarks of the latter in a manner the most favourable to his own notions, has, with regard to contagion, handed down those opinions to Russell and others, who appear to have been more industrious in looking for the means of supporting them, than disposed to examine their validity. Experience opposed the belief of pestiferous miasmata being long retained in substances not absolutely shut up from ventilation, such as articles of clothing and furniture: but the revival or re-appearance of the Plague after a considerable interval, unless it could be accounted for, on principles consistent with the preconceived theory of contagion, was boldly attributed to those very circumstances which the concurrent experience of all ages has directly opposed. The Plague at Aleppo, says Russell, whenever it appears, soon becomes epidemical: it never subsists long in a few scattered instances. A disease which approaches towards the nature of the Plague, a fever which is accompanied by swellings of the parotid glands, becomes sometimes intermixed with it, or precedes its occurrence. Yet must the notion of foreign communication be resorted to, and the necessity of contagion pleaded, rather than any admission made, that the disease under considera-

tion, ever arises in consequence of the local circumstances and atmospherical condition of the country in which it appears, year after year, season after season ; where it pursues a certain and regular course, as regularly declines, and *manifests every characteristic of an endemial affection!*

Those who contend that the Plague is communicated by contagion only,—that is by the emanation from a diseased body passing into one that is sound, by "immediate contract," do not venture to affirm, at what period of the disease such an effect is observable. They admit, that in the most fatal forms of it, the attendants *often escape unhurt*. They are inclined to suppose that the disease is capable of being communicated, at every period, and perhaps equally, and set up a theory which experience *positively condemns*:—that the longer the disease continues, the greater the quantity of miasmata, capable of communicating it, is accumulated, and the means of its diffusion are increased. If it be so, it must be inferred, that the danger of becoming infected is daily augmented. But is this the fact? In Egypt, when the Nile rises to its height, and by its salubrious waters cleanses the polluted channels (whence had previously issued diseases and death) the Plague ceases! When the condition of the atmosphere changes at Constantinople, the disease suddenly disappears. What then becomes of all this accumulation of miasmata? The bodies of the inhabitants, their polluted apparel, and furniture (full and saturated, if the expression may be allowed, with infectious matter) are alike rendered

incapable of communicating the disease! Yet the regulations of Quarantine are, it is said, necessary! And how are they carried into effect? By the purification of all the substances which have been exposed to the reception of the infectious particles! And who are employed in this necessary operation? Dr. Russell himself informs us, that the task is by no means difficult, and that the silk and cotton from their warehouses, which are supposed to be in the very highest degree capable of conveying the disease to distant parts of the world, are *easily cleansed, even by persons who at the time of the operation are themselves slightly affected with the Plague!*

Now it may be fairly asked, what would be the event if in that confessedly contagious disease the Small Pox (and which, notwithstanding the parallel which Dr. Mead attempted to draw, is scarcely more like the Plague than the Yellow Fever) if the clothes, which had been worn by a person during that disorder, should undergo the process of purification, by those who are at the time still affected, even in any degree, by the same distemper? What in psoraic complaints would be the result, if similar endeavours were depended upon, in order to remove the matter of infection from the garments which have been worn, or the utensils handled by the diseased?

A very formidable objection to the doctrine of contagion, may be found in the writings of those who have treated on the subject, in the assertion (which stands at present un-

contradicted) that notwithstanding the constant communication kept up with the East, and the absolute certainty that in spite of the most rigid regulations which have been hitherto devised, some intercourse must occasionally take place between Europeans engaged in trading to infected ports, and the inhabitants of those places, no deaths are recorded to have happened amongst the former, even in a long series of years! Dr. Russell has remarked upon this circumstance, and seems to entertain some doubts respecting the credit due to it; but neither ventures absolutely to deny it, nor attempts to bring forward any proof in opposition to it. If the difficulty of establishing and carrying into effect such regulations as those which have been largely described in the Doctor's writings be temperately considered, it will not be denied, that in proportion to that difficulty must have been the chances of injury, and the danger of becoming infected, both amongst Europeans and Asiatics. No stress is laid upon the difference of habits, manners and customs, and those other important varieties by which it is be reasonable to infer that many who are accustomed to attend the sick, and who would be liable to suffer from contagion if it actually existed, are secured, or shielded, from its effects!

After all that has been written to prove the necessity of Quarantine, and all the regulations and restraints which fear aided by ingenuity has devised, for preventing an intercourse with persons suffering under what are denominated

contagious diseases, even that great advocate of the system, Dr. Russell, admits, that it is scarcely possible to deny that occasionally the best regulations are evaded, and the strictest injunctions disregarded! Thus, according to the accounts delivered by the supporters of the doctrine that has so long and so generally prevailed, and which is still declared to be "*sound and valid*," there are and must be instances in which, in spite of every precaution,* the seeds of infection, were it possible that they could be conveyed in articles of of merchandise, must be so conveyed to every country which has a commercial intercourse with places where the Plague prevails:—and yet not a single instance occurs, of the disease being observed to arise, unless in situations so adapted to the production, or if the expression may be used, the germination of it, as to afford the strongest grounds of belief, that in truth and in fact *it originated in those situations themselves, from local and atmospherical causes*, without the necessity of any seeds of the disease, or infectious particles being brought to them, in a bale of cotton or a Turkey carpet.

It is impossible to peruse, without a smile, the extravagant histories which have been adduced in order to support the notion of contagion. Can it be credited that the account of sixty persons, assembled together in a church, becoming diseased instantaneously upon the approach of a

* Boccacio Decameron, p. 2, 3.

single individual from an infected house; the rest of the congregation remaining unaffected: and the still more marvellous story of the conveyance of the Plague from Marseilles in an old waistcoat (which nevertheless did not at all injure the person who carried it), and many equally absurd legends have, even by learned and experienced physicians, been deemed worthy of implicit belief,—and to use the language of Dr. Mead, sufficient to shew how inexcusable it is to venture to oppose the commonly received opinion!

Whenever a passage in an ancient author has seemed to give countenance to the doctrine of contagion, it has been eagerly brought forward, even by those who, upon other occasions, would readily condemn the axioms and undervalue the authority of the writer. Historians and Poets have been ransacked for affecting descriptions which, after all, amount to nothing like proof of the fact intended to be established. They shew the opinions which prevailed, but afford no better grounds for the validity of such opinions, than the implicit confidence in charms and amulets, which they record with equal gravity, can be said to establish proofs of their efficacy. It would be just as reasonable to cite the Grecian and Roman historians, in order to countenance a belief in prodigies, as it is to quote the authorities that have been commonly resorted to, for the purpose of maintaining the truth of a doctrine which the ancients were still less qualified to examine than ourselves, in the proportion in which anatomy, physiology, and the

animal economy were less perfectly understood in their days, than in our own.

An indiscriminate use of the terms contagion and infection has, as was before observed, tended very much to mislead those who read the various publications that have appeared on the subject, without a due regard for the true meaning of these expressions. They have been applied in innumerable instances, without reflecting on the confusion and error to which they lead, and have even been incautiously adopted by some authors, who never intended to support the notion of an immediate communication of the Plague, or of any other fever, by means of a specific matter issuing from the bodies of the sick, and brought in contact with other bodies of the same species, either by personal intercourse or approximation, or the medium of substances in which such infectious matter is supposed to have been lodged.

To undertake the removal of popular prejudices is an arduous task, and more especially when those prejudices have been fenced round by the almost sacred barriers of antiquity. The practice of physic, it has been said, should never alter but to improve; and every effort, which has for its object the introduction of a new theory, or even to afford a different view of any subject which has been long seen in a particular light, is regarded with jealousy by those who have subscribed to established rules or opinions, whether they had previously examined with due attention those

rules or opinions, or not. Perhaps, indeed, prejudices are commonly strong in proportion to the facility with which opinions upon scientific subjects have been originally received or adopted.

Thus, the belief of the contagion of the Plague, and that it is capable of being transported in merchandise from one country to another, is a notion which has been almost implicitly adopted upon the authority of ancient authors, and the grounds of popular opinion, without any serious endeavours to examine its original credibility. It is certain that the more attentively the writings of those who have treated of the Plague and other epidemics be perused, the less confidence will be reposed in any assertions however positive, or any reasonings however plausible, to be found amongst those who have been most desirous to establish the doctrine alluded to; whilst every circumstance, which has been recorded capable of throwing light upon the real nature of such diseases, will, on the other hand, if examined without prejudice, increase the doubts that have been entertained of the truth of the theory that has so generally prevailed.

It is rather surprising, that amongst the numerous opportunities which, during so many ages, have been continually presented of illustrating this important subject, the only real argument in favour of that theory, which experience has adduced to support and confirm it, is, that whenever the Plague makes its appearance it spreads very rapidly,

attacks whole families and communities, and continues its ravages in certain districts, whilst others remain entirely free from it.

It might have been reasonably supposed, that, in order to ascertain the causes of such phenomena, the particular circumstances in which the districts and countries in which they were observed, agreed one with another, or were dissimilar, would have become an object of careful investigation. More especially, it might have been thought that the usual mode of argument which had been adopted by those writers, whose works have, from the earliest times, been held in high veneration, would not have been departed from, on such an occasion; and if the result had been found to supply a rational and sufficient explanation of the origin and progress of the disease in question, that it would have prevented the absurdity of vain speculations and the folly of wandering in the intricate mazes of conjecture and hypothesis. But it unfortunately happens, that in modern times, and since the establishment of a new era in medical science, by the application of analytical reasoning and logical deduction to subjects connected with pathology, plain facts have been too often overlooked, and false data too readily made the ground work both of opinions and arguments. To this it may in a great measure be ascribed, that in publications of recent date, their authors have gone far beyond the limits which a prudent diffidence seems to have prescribed to many of the earlier writers, who, how-

ever they might be disposed to countenance the notion of contagion, by no means carried it to that extent which, since the introduction of the laws of Quarantine, it has reached.

It can not be contended, that so long as the Plague was considered to be an especial judgement of Divine Providence, sent as a punishment for the offences of men, it was ever imagined that the disease was brought from a distant country, or acquired from any other than a supernatural source! The moral contamination against which the Israelites were warned, when they were forbidden to hold any intercourse with idolatrous nations, was wholly unaccompanied by the remotest allusion to the contagion of diseases. The abominable customs and impious rites of Paganism were solemnly denounced, and no communications permitted, lest they might become a snare to withdraw them from their duty. The most terrible judgements were declared to be the consequence of disobedience, and even *the evil diseases of Egypt*,* included amongst them; but throughout the whole history contained in the Pentateuch, and in the recapitulation of certain parts of it, in the Psalms and other passages of the sacred Scriptures, not one word is introduced, which, properly understood, can be said to countenance the doctrine alluded to. In whatsoever manner might have arisen the custom of offer-

* Deuteronomy, ch. xxviii. v. 60.

ing up human victims, in order to put a stop to the ravages of the Plague,* it being impossible that either of the authors who mentioned it, could have been acquainted with the writings of Moses, they may also be fairly considered as originals with regard to their respective accounts of the disease. Yet amongst them all, it will be difficult to point out a single instance in which the notion of contagion, strictly applied, was deemed its true and *exclusive* cause. If contagion were the only power of producing the Plague, it would indeed be absurd to resort to any other cause.† It is true that the ancient physicians had sufficient piety to attribute the origin of diseases, as well as the invention of the arts, to a divine power;‡ but neither Hippocrates, nor any other of the very early writers, has shewn so great a degree of superstition, as to imagine that there was a *miraculous conveyance* of the Plague from one country to another! With regard to Hippocrates, the very circumstance of his having so strongly impressed upon his disciples the necessity of duly attending to the changes of the atmosphere and its effects, is a convincing proof that that great man was fully sensible of the origin of epidemical diseases:§ —that they depend on the state of the atmosphere, and are

* Aristophan. in Plaut. v. 454.

† Dickinson's Inquiry into the Nature, &c. of Fever, p. 27.

‡ "Quod cerie casu repertum sit, quis dubitet? Hic ergo casus, hic est "ille qui plurima in vita invenit Deos."—*Plinii Hist. Nat. Lib.* xxv. *p.* 552.

§ ΠΕΡΙ ΑΕΡΩΝ, ΥΔΑΤΩΝ, ΤΟΠΩΝ.

modified by the condition of the system in those who are exposed to its influence; but it no where appears that he supposed the Plague capable of being derived from mere exposure to miasmata, or intercourse with the sick, independent of a particular state of the body which had disposed it to become affected by that disease, and to the production of which particular state the air itself, as well as other causes had contributed. Yet has Hippocrates been cited to prove the doctrine of contagion!

Procopius, whose description of the great Plague in the time of the Emperor Justinian is so minute, and accompanied with such remarks as to have occasioned him to be ranked amongst physicians, has also been resorted to for the like purpose. Dr. Mead laid some stress on his account of the disease spreading from towns upon the sea coast into the interior of the country (by the bye, in what other direction could it have spread from them?) as affording encouragement to the notion of its being imported,—but it would have been no more than justice to Procopius to have mentioned, that he has also distinctly said,—*No physician or other person caught the disease by touching the sick, or dead bodies.** This, however, would have militated against the opinion of its being contagious; and on that account would, perhaps, have brought as much discredit upon his history, in the minds of some who have cited his authority, as his

* Procop. Hist. de Bello Persic. Lib. ii. c. 22.

assertion that apparitions of spirits were seen by those who were suddenly stricken with the disease!

The language of Thucydides in his account of the Plague at Athens has even been corrected, in order to render it more decisive upon the point of contagion,* and Galen is quoted with great triumph as perfectly convinced of the proof of that doctrine.† But he must be a very inconsiderate admirer of the ancients, who would allow much weight to the opinion of Thucydides upon a medical question, even if the latter had attempted to decide upon it: it being evident that whatsoever may be his pretensions to accuracy as an historian, he was entirely unacquainted with the science of physic. Undoubtedly, he intended to convey to his readers and to posterity a faithful relation of the occurrences which he has described, and to paint the distresses occasioned by that dreadful pestilence, which carried terror and dismay wherever it appeared—distresses aggravated, as he says, by the sick being either deserted by their nearest friends, or by their seeing those who endeavoured to afford them relief, becoming themselves victims to the disease; which unquestionably might happen, whether such disease were received

* "Ὅτι ἕτερος ἀφ' ἑτέρου, θεραπείας ἀναπιμπλάμενοι, ὥσπερ τὰ πρόβατα "ἔθνησκον· καὶ τὸν πλεῖστον φθόρον τοῦτο ἐνεποίει· εἴτε γὰρ μὴ θέλοιεν δεδιότες ἀλλήλοις "προσιέναι, ἀπώλλυντο ἐρῆμοι, καὶ οἰκίαι πολλαὶ ἐκενώθησαν ἀπορίᾳ τοῦ θεραπεύ-"σοντος· εἴτε προσίοιεν, διεφθείροντο, καὶ μάλιστα οἱ ἀρετῆς τι μεταποιούμενοι."

Thucydid. Lib. ii.

† Περὶ διαφορᾶς πυρετῶν.

by means of contagion, or by the effect of atmospherical influences :—a point upon which Thucydides does not pretend, nor indeed was probably at all competent, to argue.

It is admitted that the notion of Galen was in favour of contagion, as the means of communicating the Plague ; but it should not be forgotten, that of all the old physicians he was perhaps without exception the most superstitious, and that having once made up his mind on the subject, he had written too many books, and had too much vanity, easily to relinquish an opinion. Moreover the doctrines of Galen are usually delivered in a tone of authority, as if they were incontrovertible, rather than accompanied by arguments capable of convincing, or reasoning sufficient to satisfy those who venture to think for themselves.

Authors are frequently found to adopt without much reflection the sentiments of those who have preceded them, and it is not at all extraordinary that the elegance of the Grecian historian should have attracted the attention of the Roman poet, when engaged on a similar subject,—and accordingly Lucretius, by clothing the description of Thucydides in a new dress, in which it scarcely loses any thing of its original pathos, has also attained the honour of being enrolled amongst the supporters of a theory which probably never for a moment occupied his serious attention.*

Aristotle also, is to be ranked with the same class ;

* Lucretius, De Nat. Rer. Lib. vi.

although it may be doubted whether his expressions have not been sometimes wrested from their true meaning, and made to convey more than he intended, on this as well as other subjects.*

Prosper Alpinus having written expressly on the diseases of the Egyptians, amongst whom the Plague makes dreadful havoc, at, it might almost be said, regular periods, has not been so frequently quoted as some authors of less reputation, and very clearly because he seems to have inclined to the opinion of an atmospherical communication of the disease :† and even when this author is referred to, by Dr. Russell, it is rather with a desire to refute an observation which he had made (it is pretended without due consideration) respecting the sudden disappearance of the Plague on St. John's Day, than to place in the light it deserves, his remarks on the important subject of the changes in the air and climate of the country of which he wrote, at the time when the Plague is observed there.

It would be tedious and is unnecessary to cite one half of the instances which might easily be pointed out, of similar disingenuity, not chargeable solely upon one particular author, but unfortunately too prevalent amongst those who have directed their attention to the establishment of the

* "Διότι πῶς ὁ λοιμὸς μόνη τῶν νόσων μάλιστα τοὺς πλησιάζοντας τοῖς θεραπευ-
"ομένοις προσαναπίμπλησι."

‡ Prosp. Alpin. De Medicinâ, Egypt. Lib. 1, c. xvi, xvii. xvii.

regulations of quarantine. It may be sufficient, in addition to what has been already advanced, to reflect upon some of the positions which have been admitted by the avowed patrons of the doctrine of contagion, as presenting difficulties which they allow to be formidable and important; and as scarcely capable of being refuted by any arguments that have hitherto been brought forward on the subject.

One of these positions is, that in every Plague which has been known to arise, a greater or less proportion of the number of persons exposed to the influence of it, by an intimate and constant intercourse with the diseased, has always been found to escape.

Another is, that the Plague is observed regularly to decline at particular periods in different places, in a manner wholly irreconcilable with the notion that it is communicated by the application or reception of *specific matter arising from the bodies of the sick:* and even when the supposed effluvia or fomes were accumulated, and existing in a much greater quantity than can ever be imagined to have been actually imported in bales of merchandise, or in any other manner conveyed by artificial means, into any given place. The disease is thus extinguished by causes equally unknown as those which occurred to render it epidemical.

They who contend in support of contagion being the mean, and the only mean, of communicating the disease, and upon the validity of which opinion all the laws and regulations of quarantine solely rest, are content to speak of

this fact as inexplicable. To them, therefore, be their authority, or sagacity, or experience never so valuable, it will be useless to resort for a solution of any difficulty which may arise in regard to this part of the subject. But it may not be without advantage for the reader to refer to a few of the observations made by others, which have a tendency to throw light upon so important a discussion, and which have reduced the question at issue within very narrow limits.

1. It is admitted that, without a certain condition of the atmosphere, the Plague is neither epidemical nor infectious.*

2. In some countries the atmosphere, and perhaps other concurrent circumstances, are observed to be more frequently *favourable for the propagation of the Plague and other epidemics*, than in other countries situated differently, and where different habits of life, as well as a different temperature, prevail.†

3. When that condition of the atmosphere, in which the Plague is seen to spread with irresistable violence, becomes altered by currents of air blowing in a different direction, or otherwise, the disease is speedily, and almost suddenly subdued.

4. The symptoms of the disease are not aggravated when

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* Russell On the Plague, p. 323.
Allen's Synopsis Medic. Vol. I, Art. 184.
Stubbe's Epistolary Discourse on Phlebotomy, p. 53, 63.

† Mindererus De Peste, c. 3.

the accumulation of fomes, or *contagious* matter, is in the greatest quantity and degree, and when the sick are constantly surrounded by it.

In the signs or presages of the Plague, which have been enumerated even by the older writers, who supposed that there was a certain specific principle* or morbific cause of a different and distinct nature from the air itself, which manifested its influence in the production of this terrible disease, it is worthy of notice, that Diemerboeck has recorded the appearance of unusual and almost incredible numbers of insects of all descriptions, which he says covered the walls of the houses, and filled the air, two years next preceding the occurrence of the Plague at Nimeguen.† It also deserves regard, that similar accounts have been preserved by other authors,‡ and that every writer who has taken the pains of describing the state of those places in which pestilential diseases appear, has corroborated the opinion which must rationally be deduced from such a fact,—that that condition of the atmosphere is highly favourable to the existence and spread of the Plague.

The contents of the air differ according to the local situation of every given spot upon the face of the whole

* The expression of Hippocrates, very frequently repeated, is "τὸ θεῖον."

† Ishrand. Diemerbroeck De Peste, Lib. i. c. 2.

‡ "Aussi, si on void grand quantité de chenilles, et autre vermine qui "brontent et rougent les feuilles et getteus des arbres," &c.—Ambroise Paré, Lib. xxii. c. 5.

earth; and it is a remark of great antiquity, verified by constant experience, that high grounds are more wholesome than marshes, but that high grounds bordering on marshes, are, by the attraction of vapours driven over or ascending from them, necessarily rendered unhealthy, and especially in hot climates.

Sydenham, who was both an attentive and diligent observer, and a no less honest relator, although he gave into the opinion of the condition of the air not being of itself sufficient to generate the Plague, unequivocally states, that he did not think it reasonable to suppose that it could spread epidemically, unless there were a proper disposition of the atmosphere to favour its growth and increase.*

It has been said by Dr. Mead, and his opinion has been eagerly quoted by others,‡ that the Plague *can not be generated in this country*, because the degree of putrefaction is never heightened in Europe sufficiently to produce it.† Here the notion of atmospherical origin appears to have prevailed even in the mind of this author: the remark is here cited, however, in order to observe that the grounds of so bold an assertion do not appear. It is true, indeed, that Dr. Mead opposed the general opinion of his contemporaries, both in this country and on the continent, with regard to the sweating sickness which prevailed in England in the

* Sydenham De Morb. Epidem.

† Mead on the Plague, p. 183,-193.
Alexander's Enquiry, p. 55.

beginning of the reign of King Henry VII.; but that dreadful disease, which obtained the distinctive epithet of "Sudor Anglicus," and "Febris ephemera Britannica,"* from its commonly believed origin, afforded at least one proof that even in this country the atmosphere had acquired a state highly favourable to the existence of an epidemical disease, as virulent in its nature, as rapid in its progress, and as fatal in its effects,† as the Plague at Athens, or any other pestilence which prejudice or timidity has ever assigned to the torrid zone or any other part of the world, esteemed the most prolific of what has been improperly called *contagion*.

If, according to the above admission of the learned author, the atmosphere of England be sometimes favourable to the diffusion of the Plague, and if the Plague have an atmospherical origin, why may it not have been generated in England as well as in the hottest climates? The propriety of referring for its production to situations and places, in which it is scarcely possible to prove that it ever existed, is opposed by tradition as well as history. The ancient

* Caius De Febre Ephemer. Britan. p. 28.
Friend's Hist. of Physic, vol. ii. p. 333.
Lord Verulum's Hist. of the Raigne of K. Hen. VII. p. 9.
Hume's Hist. of England, vol. iv.

† Wieri Observ. Lib. vii. § 8, 9, 14.
Sennertus De Febre, Lib. iv. c. 15.
Dubourghdieu De Peste, c. 14. p. 227.
Lævinus Lemnius, De Complex Lib. ij. c. 2. f. 110.
Cogan's Haven of Health, p. 272.

Egyptians did not willingly allow that it arose among them. Prosper Alpinus mentions the common notion, that it was brought from Barbary, Syria, and Greece.* The inhabitants of Constantinople, on the other hand, affirm that it comes to them from Egypt. Mead declares, that the sweating sickness was brought into England from the siege of Rhodes (where by the bye it never appeared). Forestus cites the very learned Erasmus, who was an eye-witness of the same disease, to prove that it was transported from England, as the place of its origin, to Norway, Denmark, and Poland, &c.† Lind speaks of malignant fevers, of the worst kind, brought from North America.‡

After all these contradictory accounts, it is certain that the Plague has appeared at different times, in countries very different from each other; and yet, that in every instance in which the history of its appearance has been faithfully preserved, it has been preceded by a train of peculiar circumstances, not observable in those countries in ordinary seasons—great droughts, lasting southerly winds without rain,§ long continued calms, inundations succeeded by unusual heat, or intense frosts of considerable duration,

* Prosper Alpin. De Med. Egypt. cap. xv. f 28.

† "Translata est hæc lues ex Anglia in Norwegos Danos quoque. Dein "furiose perambulans Poloniam, de regno in regnum, de provincia in pro-"vinciam, de civitate in civitatem, adverso Rheno denigravit in Germa-"niam," &c.—P. Foresti Observ. Lib. vi. Obs. 7. Schotia.

‡ Lind's Papers on Infection, p. 4.

§ Lord Bacon's Nat. Hist. p. 166.

followed by a sudden thaw; the more rapid putrefaction than usual of animal substances, &c.*

Such were the indications (those of them, it is of course to be understood, which in a particular manner belonged to the country in which he lived,† and where his remarks upon the atmospherical changes were intended to be particularly applied,) that prompted Hippocrates to direct the means which were successfully employed for preventing the ravages of the Plague, when he foresaw its attack upon Greece; and which we are informed consisted chiefly in making large fires, and altering, as much as possible, the state of the surrounding medium, by which, and not by the contagion of personal communication, or the introduction of merchandise, or substances embued with infectious matter, he expected the disease to be produced amongst his countrymen.

That tendency to putrefaction which has been alluded to, and which, thus expressed, is rendered more familiar and intelligible, than when more technically spoken of, seems to have been considered one of the constant causes of pestilential diseases.‡ And although the Egyptians were unwilling to admit that the Plague was endemical in their country, there can be no doubt that the idolatrous worship of *Ibis* originated in their notions of gratitude for the benefits produced by that bird, in the destruction of those myriads of reptiles which not only tormented them by their venom whilst alive, but which they firmly believed to injure them by the effects of putridity when dead.*

* Arbothnot on Air, p. 182, 183.
† Mackenzie on Health, p. 82.
‡ Avicen. Can. iv. tr. 2.
Ætii Serv. v. cap. 74.
Galen, De Gras. Morbor. c. viij.
Lind's Essay On the Health of Seamen, p. 68.
Monro's Observations On the Health of Soldiers, vol. 1. p. 46.
Ambrose Paré De la Peste, p. 529.

That the air may acquire such a taint, or become so vitiated (under certain circumstances) by means of such masses of *putrescent* matter, is more easily to be conceived, than that specific particles can preserve their noxious and virulent quality through a length of time, in any description of substances whatsoever. If the circumstance of Livy having afforded support to the doctrine of contagion, by his description of what took place amongst the Roman and Carthaginean troops at the siege of Syracuse, has deserved to be quoted by those who contend for the validity of that doctrine,—it should not be forgotten, that the same historian speaks of the *origin* of that disease, which he almost borrowed the expressions of Thucydides to depict, as arising from *the effluvia of a multitude of the slain putrifying in the heat, as they lay unburied in the field of battle.*† Many

* "Avertunt Pestem ab Ægypto, cum volucres angues ex vastitate Lybiæ "vento Africo invectas interficiunt atque consumunt; ex quo fit ut illæ nec "morsu vivæ noceant, nec odore exstent."—Cicero de Natura Deor. Lib. 1. 36.
† Livii Hist. Lib. xxv. cap. 26.

other instances are also related of a similar nature.* But in whatsoever manner the Plague be originally produced, whether by the decay of animal matter, or the changes of vegetable or mineral productions, it may be truly said, that "the air is the chief instrument, both of propagating and "extinguishing it: for if the Plague be deduced from in-"visible insects, the favourable constitution of the air to "their propagation must be supposed; or from whatsoever "source, the air is the medium by which it is conveyed, "and must favour it more or less, in different seasons. "As to the Plague being propagated by infected goods: "in a city infected with the Plague, notwithstanding all "the pains taken by artificial purifications to extirpate "the contagion, there must be more of the pestilential "*levain* left in goods, than could be brought by a whole "fleet; yet when the *pestilential season* is over, people "return to their houses, &c. and use the same goods "safely. Indeed, if pestilential *levains* were always cap-"able of producing disease, how is it possible for the "Plague ever to be extinguished, in a place once in-"fected?"† Dr. Arbuthnot, from whose Essay these remarks are borrowed, adds, "it is probable that the Turkish

* Vide Kircher De causis et effect. Pestis.
Ludolfi Hist. Æthiop. Lib. i.
Evagril Hist. Eccles. Vol 2. Lib. iv.

† Arbuthnot on Air, p. 188.
Boerhaave Institut. Medic. §. 753. p. 319.

"contempt of the contagion does not propagate (that is "*spread)* the disease more than the Christian dread of it, "which brings public disorder, want of care both of the "sound and the infected; *more persons perishing from "want of attendance*, than by the malignity of the disease."

These sentiments are abundantly confirmed by other writers; and when examined and considered with due attention, can scarcely fail to establish, in every unprejudiced mind, a conviction that such a visitation, or, as the older writers term it, such a *distemperature* of the air, as is observed to arise under certain circumstances, in different parts of the globe, may dispose the human body to that series of morbid actions which constitute the disease called the Plague, without affording any substantial reason in support of the notion, that certain particles of specific matter are first generated by the diseased, then preserved, and at length brought into contact with the human body, perhaps thousands of miles from the place of their origin; and that this almost miraculous process is necessary to excite the disease in others.

It is not intended to affirm, that this or that particular combination of causes *can alone* bring the atmosphere into such a state. It is not meant to say, that it is even possible to describe all those varieties by which the human body may be brought into a condition in which such a state of the air will be sufficient to produce that series of morbid actions; but no *proof* having been ever adduced

of the actual existence of *a specific matter of contagion*, which has been unnecessarily resorted to by the supporters of that hypothesis, and all the phenomena observable in the Plague being quite as satisfactorily accounted for, without it,—it appears altogether unreasonable to countenance an opinion which is at best merely conjectural, in preference to the evidence of daily experience, and our common senses.

The positiveness and pertinacity with which assertions have been made, and opinions defended, afford no proofs of the truth of these opinions or assertions: they may evince the sincerity or the zeal of the persons by whom they are made and maintained; but are no better evidence of facts than *the number* of the followers of Mahomet, that he was not an impostor, or of those who believed the story of the old woman at Tutbury, in Staffordshire, that it is possible to live without food!

The doctrine of contagion having been extended far and wide, and made to embrace many other diseases besides the Plague, instead of acquiring, by that circumstance, any additional claim to validity, should have been rendered the more suspicious. They who attempt to prove too much, the more frequently fail to establish the position originally intended. By having applied the notion of contagion to diseases which are often prevalent, and therefore exposed to common observation, the supporters of that doctrine have challenged an investigation, which is the less

difficult in proportion as the circumstances upon which that notion is founded, are more generally known. It becomes also the more important that such an investigation should be made, because every day increases the number of persons interested in it, and renders the ultimate decision upon the present question an object of greater value to the whole human race.

If we apply the reasoning which at first was confined to the subject of the Plague, to other epidemical diseases which are of frequent occurrence in our native country, the ordinary rules of deduction will also soon establish, in the mind of every philosophical enquirer, the same opinion which an ingenious modern physician, a few years since, boldly avowed, that these diseases "*are not in their nature contagious.*"*

They are observed to arise in different places, to attack in rapid succession vast numbers of persons, to continue for an uncertain period, and afterwards to decline either gradually or more suddenly, until no traces remain of them, but the melancholy recollection of the distress and sufferings which they have inflicted, and the havoc which they made. Again they resume their destructive influence, and spread wide the terrors of their reign, whilst the medical faculty, unfortunately divided in their opinion respecting their nature and origin are too often irresolute with regard to the treatment to be pursued.

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* Dr. C. Maclean.

Those amongst them who have adopted the notion that they are contagious, either waste that time, which ought to be advantageously employed in combating the violence of the disorder by suitable remedies, in devising means which are falsely imagined to be preventive, or in carrying into effect regulations and suggestions founded in error and timidity. These methods, useless in themselves, are often worse than useless, by establishing a deceitful hope;* or when their inefficacy becomes manifest, by diminishing that confidence in medical skill which is at least favourable to its efforts.

Instead of attending to the various symptoms by which the progress of epidemical disorders are marked, and which, if duly considered, would supply useful indications of the most proper methods of treatment, a blind and implicit submission to the dogmas of the theorist, or an eager agreement with the whimsies of hypothesis, are too often observable.

If it be asked what proof has ever been adduced that typhus fever is contagious? the inquirer will be either conducted into the labyrinths of medical controversy, or referred to authoritative tenets, which for ages have been received and acted upon with regard to the Plague. He will be told that the same putrefactive tendency, but in a lower degree, evinces that they are diseases of the same genus,

* Rush's Account of the Yellow Fever, p. 56.

or that how much soever they may differ in their symptoms or their progress, this characteristic they have in common, that when one person in a house or a family be attacked, others who have an intercourse with them become similarly affected. If it be objected that many of these persons also escape, and that many, who have never approached the sick, are seized with the prevalent disorder: it will be said,—that it is a peculiar state of their constitution in the former, which has rendered them unsusceptible of the effect of contagion, but that it is an error with regard to the latter; that they have certainly been in some way or other exposed to *contagion*, that it has been communicated to them in a letter by the post, or by looking through a window at a sick person passing by, or meeting a convalescent in the street, whose clothes had not been fumigated properly, or by any thing which can, however remotely, give support to the idea of contagion; for from that, and that only, can the disease be derived!

All this may be ridiculous, and even contemptible, but notwithstanding its evident absurdity, such is the reasoning by which the doctrine of contagion is attempted to be defended! It is no ideal picture which is here displayed, no visionary scene which is presented, for the mere purpose of shewing its false colours or flimsy texture. Assertions, without even probability to recommend them, are, on this subject, the substitutes for pathological reasoning and philosophical truth. Nevertheless fevers still arise, still prevail, still baffle the skill of medical men to remedy or

relieve them; and still the people too often fall victims to their prejudices; for it is impossible to conjecture that the same mode of practice will be adopted by those who attribute the origin of a disease to a specific morbid emanation from the bodies of the sick, and by those who deny the possibility of such an occurrence.

A fever of a putrid tendency, the synochus or typhus, as it is denominated, now, very familiarly even by all ranks and descriptions of persons (and by thousands who have no notion of the meaning of the term) has of late years been remarkably prevalent in this country. Whether those who are professed contagionists are prepared to assign to any particular spot the fame of its origin, or whether, like the birth of Homer, it is referred to many different cities, it is not within the design of the writer to enquire: but it is a fact not to be contradicted, that wherever the disease makes its appearance, it is usual to manifest much ingenious anxiety to trace it to some *distant source*. The Plague brought (as it is the custom to assert, when it first breaks out) in this or that ship, or this or that package of goods, is scarcely with more earnestness thus disclaimed by those amongst whom it is discovered, than the disorders called typhus, by the inhabitants of towns and villages where they make their appearance. The parallel ought to be pursued,—the dread of becoming infected, which is a necessary consequence of the notion alluded to, operates both in the one case and in the other, to prevent those humane attentions to the sick, which are so important and

so essential, in both. Besides, as was before observed, it leads to a neglect not only of remedies but of rational precautions, and diverts and misleads the mind from the true and real causes of the disease to one which is imaginary. Whilst a thousand contrivances are directed to effect impossibilities, and to overcome a non-entity, an indifference highly culpable is induced with regard to objects of great importance both to the sick and to others. It was well remarked, that although the human race can not exist for a moment without air, men are both terribly afraid of it, and at the same time wholly inattentive to its qualities. * The influence of a contaminated atmosphere has been long known, and repeatedly and pathetically described, not by the Faculty only, but even by the Poets, and for a while it seemed to have some share in controlling medical practice,†

* Tissot on Disorders of Persons of Fashion, translated by Lea, p. 23.

† "When o'er this world, by equinoctial rains
"Flooded immense, looks out the joyless sun,
"And draws the *copious stream from swampy fens*,
"Where putrefaction into life ferments,
"And breathes destructive myriads; or from woods,
"Impenetrable shades, recesses foul,
"In *vapours' rank and blue corruption* wrapt,
* * * * * *
* * then, wasteful, forth
"Walks the *dire Power of pestilent disease!*" THOMPSON.

"Fly the rank city, shun its turbid air;
"Breathe not the chaos of eternal smoke
"And volatile corruption, from the dead,
"The dying, sick'ning and the living world
"Exhal'd, to sully heaven's transparent dome
"With dim mortality. It is not air
"That from a thousand lungs reeks back to thine
"Sated with *exhalations rank and foul*,
"The spoil of dunghills, and the putrid thaw
"Of nature!" ARMSTRONG.

Lind's Essay on Diseases in Hot Climates, &c.

but of late years the notion of *specific matter of contagion* has been so much encouraged and insisted upon, that it appears to have superseded almost every other consideration.

The gaol, camp, and hospital fever, is again and again cited, in order to support the belief of contagion, as if it were meant to deny that the air may be vitiated and contaminated by a crowd of living beings shut up in the hold of a ship, or confined in a damp dungeon, and that such air may be even destructive of animal life. But if this be admitted, does it amount to any proof that the human body generates a specifically infectious matter?* or afford any grounds for asserting that particles of such matter retain their destructive property for months and years, exist uncombined with every principle by which their virulence can be subdued, and are preserved unaltered, without exerting their influence, and yet ready to exert it, as soon as a skein of silk, or a bale of cotton in which they may have lain, or to which adhered, is landed upon a distant shore? Such opposite qualities, ascribed to a *certain something*, which can not be demonstrated to exist, nor be subjected to the cognizance of either of the senses, so as to afford an opportunity of investigation, renders the truth of the hypothesis extremely doubtful. Like an ignis fatuus, the farther it be pursued, the more it bewilders those who attempt to follow it. It is true, that the origin of many diseases, with the symptoms of which experience has made us well

* Henderson's suggestions for the Prevention of the Yellow Fever, p. 52.

acquainted, is involved in great obscurity; but on the subject of contagion, mankind voluntarily rush into the darkness of conjecture. By bewildering themselves in vain attempts to discover remote causes, they lose sight of those which are at once sufficient, and immediately open to their view.

At the time of writing these pages, there are numerous instances of the occurrence of typhus gravior, in places very differently situated, and amongst persons of both sexes, different ages, and various habits of life, within the immediate knowledge of the author. In every one of them vain attempts have been made to shew, that the primary instance of the occurrence of the disease, was in some individual who had had communication with the sick; or, at all events, had visited some *distant place*, where the disease was either known or supposed to prevail; but not one satisfactory proof has been adduced, not one instance which will bear the test of minute inquiry. In each of *six different places* it has been respectively attributed to an intercourse with some other, and equally denied with positiveness by all, to have been thence diffused. This occurrence is not singular.

The same circumstance took place in the preceding year, and will probably occur again, if the state of the neighbouring country and of the weather, and the same currents of air should happen to prevail. Both last year and in the present season, many escape the disease, who are constantly in attendance upon the sick, and exposed to every imaginable

mode of receiving it by contagion, if it were possible to receive it. Many are attacked by it who have never approached the sick. Instead of occupying the time in useless conjectures about bare possibilities, or rather impossibilities, it is sufficient to remark, that one uniform character belongs to the disease, and that its rise and progress are both intellible. Although the patients who suffer, and those who escape, are unquestionably, as above mentioned, variously situated, there are circumstances (and very important circumstances in the mind of the pathologist) in which they all agree. Although the places in which the disorder has thus repeatedly occurred, are differently situated, there are circumstances of equal importance (with regard to the persons affected) in which they are also alike; and which satisfactorily point out from what source the disease arises, and why some persons escape and others suffer its influence, without resorting to the sophistical reasoning applied to its communication by contagion, or the wretched subterfuge of *inexplicable peculiarity of constitution*. For example, it could not but strike with some force even the most common observer, that the season and condition of the atmosphere were the same when the disorder under consideration broke out in each of the places alluded to,—that the wind had blown respectively from that quarter from which it must necessarily have wafted vapours, from or over low and marshy ground (those exhalations which, without entering into a minute chemical analysis, it is sufficient to speak of in the vernacular language of the

country, as *rank* and *corrupt*), to the districts which were immmediately visited by the distemper. So particularly was this remarked, that in a place in which from forty to fifty persons were attacked by it, one end or part only of that village exhibited instances of the disorder, whilst all the rest of the inhabitants escaped. It is also remarkable, that different persons who had no intercourse whatsoever with each other, but were successively employed in similar occupations in places similarly situated, with regard to the prevailing currents, were seized with the fever. It was observed, that the disease was extinguished, when a change in the atmospherical temperament and in the currents of air took place, with as decisive regularity as the Plague is terminated by the winter in Constantinople, and the summer in Egypt. It was observed, also, that with regard to diet, habits of life, and other circumstances, which are considered to have an important influence upon the condition of the human frame, there was either an evident agreement between the persons who were attacked with the disease; or that the state of the system at the period of such attack, was evidently similar (whatsoever diversity there might have been either in their diet or habits) and that the effects and symptoms of the disorder differed only in degree, according to those shades of individual variety which belong to every created being. It was observed that in those instances in which attendants upon the sick became affected, their general condition of system, at the time of such attack, bore the above mentioned resemblance to

that of the persons from whom they were imagined to have received infection; but that in no one instance to which the most diligent enquiry could be extended, was any individual affected during, or soon after, such intercourse, who had not *also been exposed to the same common effects* of that impure (or, if it may be called, contaminated) atmosphere, which, without exception, all other persons who were attacked by the disease had been breathing. And lastly, it was remarked, that, in those instances in which persons who had been in like manner exposed without becoming diseased,—the state of their bodies and condition of health were manifestly and observedly different.

Upon the whole, the powers of the animal body being below rather than above the natural healthy standard in the one class, and above rather than below it, in the other, constituted the criterion by which it might be pretty accurately predicted whether this or that person would be attacked, or would escape the attack of the disease, whenever *fair opportunities* of acquiring an *exact knowledge* of their condition and habits were afforded to the *discreet and experienced enquirer*.

These observations are not brought forward in support of the Brunonian hypothesis, which has unfortunately been too frequently the cause of very inadequate and very erroneous conceptions with regard to diseases, nor in compliance with any other theory, however plausible, which has been delivered upon the subject. They were not made under the influence of any impression suddenly or hastily received, and

which seemed to derive support from a few detached facts, but are the plain incontrovertible evidence of attentive observation, uniformly directed to the same object, during a long course of years, in which the writer has enjoyed abundant opportunities of seeing the disease in hundreds and in thousands of instances,—without having upon any occasion found the result to lead to a different conclusion.

It was by no means the design of these pages to add to the already inconvenient stock of controversial tracts, nor is it intended to enter into a farther history of the symptoms or progress of the disease, to which, by way of illustrating the *doctrine of contagion* it seemed not improper or impertinent to allude: a farther discussion of those topics would exceed the limits proposed to this pamphlet, which, without it, will, it is hoped, have placed the subject in a point of view different from that in which it has been too generally regarded, and afford some assistance to those by whom the important question respecting the regulations of Quarantine is to be decided.

"Contagion supposes two things.* One from which the "infection passes, and another which receives it. A per- "son who dies by poison may be said to be infected; but "not that he has received his death from contagion. When "an infected person conveys to another the disease where- "with he is infected, and that, by the touch, the second "person is said to catch the disease, or to take it by conta- "gion. *When, therefore, we put the question of the Plague,*

* Distinct Notions of the Plague. Printed in London 1722. Anon.

"*or any other diseases, being contagious, we are bound to* "*determine from experience, what we know of the Plague* "*being conveyed by contact or contagion,* WHICH QUESTION "IS RATHER A QUESTION OF FACT, THAN OF PHYSICK."

If this question, when considered impartially and without bias from pre-conceived theory, shall happily lead to a conclusion in accordance with the preceding sentiments, respectfully submitted to the Public in these pages, and the consequent abolition of every useless regulation by which commerce has been shackled, and a false and erroneous principle with regard to diseases thereby countenanced and supported, those who participate in the discussion, and who shall be the means of producing so great a benefit to the world, will justly entitle themselves to the esteem of their fellow subjects, the respect of every enlightened nation, and the reverence and gratitude of future generations.

LONDON, 3d April, 1819.

Printed by Anderson & Co. 4, Broadway, Blackfriars.

LETTER

ON

FEBRILE CONTAGION:

ADDRESSED TO

DAVID HOSACK, M. D. F. R. S. F. L. S.

PROFESSOR OF THE THEORY AND PRACTICE OF PHYSIC, AND OF MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN, IN THE UNIVERSITY OF THE STATE OF NEW-YORK, &c.

BY JOHN W. FRANCIS, M.D.

Professor of the Institutes of Medicine in the University of the State of New-York, &c.

NEW-YORK:

PRINTED BY CLAYTON AND FANSHAW,

No. 62 Pine-street.

1816.

NOTICE.

During the Writer's late residence in Great Britain, finding the question, Whether the human constitution is susceptible of a second attack of Yellow Fever? occupying a large share of the attention of the medical profession, it occurred to him, that the ample experience enjoyed by the physicians of the United States, would go far in settling this controversy. With the view of calling the attention of American Practitioners to this subject, and of obtaining the results of their Observations, the following Letter is published.

NEW-YORK, *Dec.* 1816.

LETTER.

London, *June* 16, 1816.

Dear Sir,

Within a few days I set out for Bristol, and in all probability this is the last letter you will receive from me dated London. The present communication might be devoted to many interesting subjects medical and philosophical; but I am induced from several considerations to restrict my attention particularly to one. You have long been acquainted with the important controversies that have existed on that grand subject of medical disputation, contagion; with the various and contradictory opinions that have been promulgated as to its nature and effects; and with the manner in which those controversies have been conducted, especially by American physicians. The question of contagion and infection has also occupied, as you well know, a large share of the attention of the medical writers of Great Britain, especially within the last few years. Much less diversity of sentiment, however, exists in this country than in our own, and in the discussion

much less of asperity has been manifested. A single exception occurs in the case of Dr. Bancroft in his late "Essay on the Disease called Yellow Fever:" a work intended by the author to prove that this form of fever is occasioned by the operation of marsh miasmata, and is non-contagious; and of which performance it is due to the talents of the author to admit that he has displayed great learning and research. As one practically acquainted with the disease during its visitations in America for a period of more than twenty years, your own ample experience will have enabled you at once to perceive the fallacy of such speculations. Indeed, the volume of Dr. Bancroft has most materially aided in the establishment of the very doctrines which it was his object to overturn. Few writers seem to have entered the field of controversy with stronger prejudices, and, perhaps, none have communicated their thoughts with less deference to authority and in more illiberal language. It would appear to be the opinion of Dr. Bancroft, judging from his conduct, that gross invective and personal abuse may supply the place of well authenticated fact and legitimate deduction.

The revival in England of the controversy relative to the specific form and contagious nature of yellow fever has been the means of giving birth to several works of great practical value, and in my

opinion, of deciding the great question; if indeed any thing had been wanting after the laborious investigations of yourself and of other American physicians. The volumes of Sir James Fellowes and Dr. Pym have just made their appearance here, and may not yet have reached you. The former author has published the results of his practice under the title of *Reports of the Pestilential Disorder of Andalusia, which appeared at Cadiz in the years* 1800, 1804, 1810 *and* 1813; *with a detailed account of that fatal Epidemic as it prevailed at Gibraltar during the autumnal months of* 1804, *&c.*: the latter under the name of *Observations upon the Bulam Fever which has of late years prevailed in the West-Indies, on the coast of America, at Gibraltar, Cadiz, and other parts of Spain: with a collection of facts proving it to be a highly Contagious Disease.* As officers of high trust in the medical Department of the Army, they have enjoyed opportunities of unwonted observation: the manner in which they have drawn up the respective accounts of their labours is highly satisfactory, and the accuracy of each work is fully confirmed by official documents. Sir James Fellowes, as long ago as 1795, had numerous opportunities of witnessing the pestilential fever which committed such ravages among the British soldiery of St. Domingo, and he describes the Peninsular fever as appearing

under a similar form of malignity and showing, many of the strongly marked characters of the St. Domingo fever. His history of the origin and progress of the disease clearly points out that there is a real foundation for the distinction between fevers arising directly from the miasmata of marshes and decomposed vegetable matter, and those that are the offspring of human effluvia or specific contagion. The account furnished by Dr. Bancroft under this head is clearly proved to be erroneous, and his statements, deficient as they are in the most essential requisites, will have little weight when compared with the judicious relation of the Spanish Professor Arejula. In his observations on the disorder called the Walcheren fever, which prevailed so fatally among the troops of Zealand in 1809, and after their return to Great Britian, and which disease, notwithstanding the volume of Pringle,* has most absurdly been pronounced by some writers to be the yellow fever, Sir James maintains that it possessed no contagious property, at least no evidence existed that the complaint ever had been propagated or communicated to those in attendance upon the sick. "This fact," says he, "was confirmed by my own experience, and by the testi-

* Diseases of the Army.

mony of all the medical officers of the army." "On the other hand," adds Sir James, "the numerous facts which have been recorded of the contagious nature of the pestilential fever of Spain are incontrovertible; they are detailed with simplicity and truth, and they must speak for themselves."*

Dr. Pym, in his Observations, has attempted to prove that the fever of Gibraltar was the same as the Bulam fever, so happily described by the learned and distinguished Chisholm; that it is a disease totally distinct from the bilious remittent fever of warm climates; that it has no connection with or relation to marsh miasmata; that it appears in the West-Indies only under peculiar circumstances; that it is contagious, and under a certain degree of temperature may be propagated from one country to another; that it attacks, in a comparatively mild form, natives of a warm climate, or Europeans whose constitutions have been assimilated to a warm climate; and that it differs from all other fevers, in having its contagious powers increased by heat, and destroyed by cold, or even by a free circulation of moderately *cool* air. According to Dr. Pym, under the name yellow fever, have been confounded three fevers, which

* Introduction, p. xxii.

he considers as totally distinct. The agency of marsh effluvia, I have already observed, he wholly rejects as a cause of the Bulam, Gibraltar, or real yellow fever. This you will perceive is striking at the root of that most pernicious error that has been so zealously and so widely propagated, notwithstanding the evidence of facts to the contrary, and the happy nosological distinctions made long since by such authors as Blane, Chisholm, Jackson, Lempriere, Clark of Dominica, Stewart, Bard, and numerous other practical observers of undoubted veracity. For I believe you will agree with me that from the want of a due discrimination on the part of many writers who have professed to describe the fevers of the United States, as they have prevailed in our sea-port towns and in different inland places of our country, have proceeded most of the dissentions that have existed on this subject. This want of discrimination too may justly be considered adequate to the production of many of the histories of the diseases of America that have appeared, and in which we find confounded fevers arising from dissimilar causes, characterised by a different train of symptoms, and varying most essentially in the methods of treatment they require.* Dr. Pym's is no feeble

* This language, I feel assured, will not be deemed too strong by those who impartially compare the different accounts of the

attempt to counteract the influence which the unwarrantable opinions of Dr. Bancroft may have had in relation to this point.

But I have to solicit your attention to a much more important circumstance made known in the volumes of Dr. Pym and Sir James Fellowes, and to communicate which this letter has been written. Dr. Pym, who had the advantage of seeing the disease not only in Europe but in the West-Indies, contends, that the Bulam fever attacks the *human frame but once;* and supports this position with the strongest proof. I will not do injustice to his statements by attempting to abridge them. Irrefragible evidence is advanced by Dr. Pym, that the Gibraltar, West-India or Bulam fever, (the malignant pestilential fever of Chisholm) are the same disease. In a subsequent essay, Dr Pym has enlarged on the subject of the disease affecting the human body but once. I must be indulged in one or two extracts.

"At Gibraltar, during the prevalence of the

fevers which prevail in the interior of our country, and more especially those that have made their appearance in the vicinity of lakes with the histories that have been given of the pestilence as it has exhibited itself in New-York, Philadelphia, Boston, and other sea-ports and places within the United States. To consider the several kinds of fevers as *grades* only of one and the same disease, is a retrograde movement in medical philosophy.

disease in the years 1810, 1813, 1814, there was no well authenticated instance of a second attack: every person escaped it, who had had it at any former period: and this fact is now so well established there, that among the quarantine regulations against the introduction of the disease this year, (1815,) *all the troops who have not passed it are encamped, while those who have passed it are doing the duty of the town.* At Cadiz, Carthagena, and Malaga, the fact of persons not being liable to a second attack of this disease, is considered to be as firmly established as it is in the small-pox."

"Two more proofs of the Bulam fever not attacking a second time, were in the 70th and 55th regiments. The first suffered severely from the disease in the West-Indies, in the year 1794, and returned to that climate from Europe in the year 1800, filled up with new officers, with the exception of six, viz. Col. Dunbar, Major Elliot, Captains Johnstone, Lawrence, Hutchinson, and Boat, who had had the fever at a former period in the West Indies, and who now escaped it, although the corps buried ten of the newly appointed officers in a very short time."

"Upon a moderate computation, there were *one hundred and fifty* officers (civil and military,) at Gibraltar, who had not had the disease before, and twenty-five who had passed it in the West

Indies; and making an allowance for one or two doubtful cases, where the disease was so mild as not to confine the patient to the bed, one hundred and forty-five at least out of the one hundred and fifty were attacked by it, while every individual of the twenty-five who had it before escaped it." *Appendix to Dr. Pym's Observations.*

This same peculiarity marked the pestilential fever of Spain. According to Sir James Fellowes, it never has been known to attack the same person a second time in that country. "This fact," says Sir James, "which was first observed by the native practitioners, has now been confirmed by the experience of several years, and by the concurrent testimony of all the surviving inhabitants of those places, where the disorder had most prevailed." *Introduction, p.* xxiii.

I have dwelt so long on the performances of Sir James Fellowes and Dr. Pym, as almost to be deterred from referring to any other authority; yet I cannot forbear making a short extract from an account of the epidemic fever which occurred at Gibraltar, and for which the public are indebted principally to Dr. Gilpen, one of the inspectors of the hospitals. The paper throughout is of singular merit, and eminently calculated to do away the doubts of the sceptical, and strengthen the faith of the wavering. It is gratifying to the

philanthropist to read the answer given by Dr. Gilpen to the eighteenth query, addressed him by the Medical Board of the army.

"In private houses, in most cases," replies Dr. G. "the attendants were attacked. There were undoubtedly many exceptions in the hospitals; but it was to be accounted for, as, generally speaking, the attendants were persons who had had the disease previously either in the West Indies, or in Spain, or here, in 1804. At the commencement of the disease last year, it was calculated that there was about five thousand persons within the walls who had previously passed through it; and, after careful inquiry, there does not appear to be one well authenticated case of a person's having received the infection a second time. I heard, indeed, of three or four; but as the nature of the *previous* fever could not be exactly known, these exceptions have but little weight in so momentous a question. The exemption from a second attack, I am credibly informed, is firmly believed in Spain. At Cadiz, last year, though the fever put on the very worst symptoms, and destroyed the patient frequently in forty-eight hours, the deaths did not exceed, in a population of upwards of seventy thousand, fifty a day; and these were chiefly strangers. The Spaniards are so fully convinced they cannot receive the infection

a second time, that having passed the disease is matter of great rejoicing among them: and a medical certificate of the fact, is a sufficient passport into an infected town, which they enter without the smallest apprehension." Consult the Transactions of that active and distinguished association, the Medical and Chirurgical Society of London, vol. 5, for more ample details.

The immunity of the constitution from a second attack of yellow fever, is a peculiarity so strikingly characteristic of most disorders of an acknowledged specific nature, and of such great practical interest both in a social and political point of view, that it is extraordinary it should have met with so little notice before Professor Arejula made mention of it in the year 1806. "The yellow fever of Andalusia," says Arejula, (I avail myself of the translation of his account in *Sir James Fellowes' Reports, p.* 67.) "attacks persons but once in their lives, and it is of great importance to the physician to know this, in order to form his prognosis and his plan of cure, as well as for the individual who may have passed through this disorder, that both of them being assured of this fact, may step forward without fear to the relief of their fellow creatures who may hereafter be afflicted with so dreadful a malady." Dr. Pym, however, enjoys the reputation of being

the first English physician who promulgated this principle. I have not the sources of information at hand to enable me to determine how many of the writers on the malignant fever, as it has prevailed in our country, have entertained this opinion, though I well recollect Dr. Lining to have been one; as may be seen in his account of the fever of Charleston, published more than sixty years ago in the Edinburgh Physical and Literary Essays, volume second. In the interesting correspondence on the yellow fever which was maintained a short time anterior to this period by Dr. John Mitchell, of Virginia, and Lieutenant Governor Colden, of New-York, nothing is alluded to from which we might infer their knowledge of this law of the disorder. See the American Medical and Philosophical Register, vol. 1st. and 4th. In the Facts and Observations of the College of Physicians of Philadelphia, on the nature and origin of the pestilential fever, after establishing the identity of the yellow fever which existed in that city in 1793, 1797 and 1798, with the West India pestilence, the College state, that it is a circumstance that deserves particular attention, that "very few, if any, of the Creole French in this city, [Philadelphia,] suffered from the contagious malignant fever which prevailed here in 1793, 1797, and 1798, though the disease was introduced into

their families; and children born in this country of Creole parents, died with it last autumn, while the parents and the children born in the West Indies were entirely exempt from it." We look in vain, if my memory serves me, for any thing of the same sort in the Additional Facts and Observations, a subsequent publication of the College of Philadelphia.

In the Sketch of the Malignant Contagious Fever as it appeared in the same city in 1793, Dr. Cathrall observes, "it does not appear to affect the same person twice. Although careful enquiry" adds he, "has been made by several of my medical friends and myself, it only appears that some of the patients had a slight relapse of fever, but without any of the distinguishing symptoms of the disease, and very soon recovered." It is much to be regretted that the several histories of this disease published by that able medical annalist, the late Dr. Rush, should have been so confused and unsatisfactory on so momentous a matter. In his account of the bilious yellow fever of 1793, you will, nevertheless, find that the refugees from the French West Indies "universally escaped the disorder," though this was not the case with the natives of France who had been settled in the city. On the other hand, Dr. Currie of Philadelphia, in his treatise on the Synochus Icterodes, states, that several instances occurred of the

disease affecting the same individual a second time, and under circumstances so unequivocal that it could not be *fairly* ascribed to a relapse. This assertion, you will see, is not strongly made, and may be deemed rather matter of opinion than matter of fact.

Dr. Currie also tells us that the French West Indians, particularly those from St. Domingo, almost to a man escaped the disorder, though they made use of no precaution for the purpose, "while those from France were as liable to it as the Philadelphians." Nothing in relation to the security from a second attack of the disease is advanced by the late Professor Bayley, in his excellent volume on the Epidemic Fever of New-York in 1795, though in the Collection of Papers published by Mr. Webster, a writer on the epidemic of New-York, of the same year, alleges that he knew not a decided instance of an individual labouring under a second seizure.——But at present I am not duly prepared to enlarge on this point, by reference to other American authorities.

Dr. Pym has referred me to a passage in Sauvages on this disease, in which it is asserted that it operates upon the constitution but once. *Typhus icterodes* contagiosus est. Albos tantum, maxime peregrinos ex regionibus frigidis advenas, Indos, Hybridos, mulatros omnes, exceptis infantibus, una tantum vice afficit: nigri vero ab eo morbo nonquam afficiuntur." See Nosologia Methodica, tom. 1. p. 316, of the quarto edition of 1768. Does your own extensive experience in the malignant epidemic of New-York, agree with the opinion that the human constitution is invulnerable to a second attack of yellow fever, and corresponding in this respect with small pox, and other specific disorders? In answer to this question, which has been frequently put to me by practitioners of medicine in England, I have uniformly ventured to assert that it holds good as a general fact. Those who have once had the disease are certainly *less susceptible* of its influence a second time.

Permit me now to make known to you the important results of the recent deliberations of two of the most distinguished medical associations of this kingdom. The decisions of the Royal College of Physicians of London, and of the Army Medical Board are at length brought to a close. These two learned bodies, alike distinguished for scientific attainment and practical knowledge, have been for a considerable time past devoted to a consideration of all the facts connected with the nature and character of the yellow fever, particularly as it has of late years appeared in Spain. The Royal College have pronounced that the yellow fever is a highly contagious disease, which decision they have reported to the Lords of the

Privy Council. With respect to its attacking the human frame but once, they say they think it *extremely probable*, but that upon a point of such importance they cannot venture to give a decided opinion. The Army Medical Board, at the head of which presides Sir James M'Gregor, have also given it as their opinion, that the yellow fever is in its nature contagious; and they further add their conviction, that the fever of Spain is not only strictly contagious, but that like other disorders of a specific character, it affects the human frame but once. I have been kindly favoured with an abstract of these proceedings, and I herewith enclose an extract from the official report upon Dr. Pym's publication, by the Army Medical Board. The operation of climate, soil, and other local causes, in adding virulence to febrile contagion, may be considered almost an axiom in physics; and the necessity of a strict adherence to your improved system of quarantine laws, and all municipal regulations for the purpose of domestic cleanliness, cannot be too strongly enforced. On this subject the Royal College and the Army Medical Board are united in opinion.

(COPY.)

EXTRACT FROM THE REPORT UPON DR. PYM'S PUBLICATION BY THE ARMY MEDICAL BOARD.

Army Medical Board Office, 6th May, 1816.

"It is due to Dr. Pym to state, that we consider him to have been the first English medical

man who promulgated the opinion, that the disease in question (the Bulam fever,) is capable of attacking the human frame but once; and if that opinion be correct, which we believe it to be, it is certainly an important fact, and led Dr. Pym to employ those persons as attendants on the sick, who had undergone the disease, and therefore were not likely to be affected by the contagion of it, and thus probably saved many lives. Under these impressions, we beg leave to recommend the industry and research displayed by Dr. Pym in his book, to Lord Palmerstone's favourable consideration.

"Signed,

"J. M'GREGOR,

"W. FRANKLIN,

"W. SOMERVILLE."

The advocates for the unity of disease will, I believe, find it insuperably difficult to reconcile with their theory, the facts which I have thus hastily communicated to you; while the fundamental principle, that there is a radical difference between remitting fever and yellow fever, between fevers depending upon marsh miasms as their source, and those that take their rise from human contagion; in short, that yellow fever is a distinct idiopathic disease, acquires additional support. It may not therefore be of disservice to make known

the purport of this letter. The doctrine maintaining that different fevers are of one common origin, is in reality so unfounded in fact and so pernicious in its consequences, that the sooner it is discarded, the better will it be for the interests of humanity.

Before I conclude, permit me to add a few lines on a subject not wholly foreign to the nature of this letter, the *plague*. The account of the origin and progress of the plague in the island of Malta, in the year 1813, drawn up by Dr. Calvert, physician to the forces, and printed in the 6th volume of the Transactions of the Medical and Chirurgical Society of London, is a document of great value. The reasoning of the author, deduced from the evidence which a faithful narrative affords, seems to be very satisfactory. Contact, he maintains, is the most certain mode of communicating the disease, but he is inclined to deny that it is essential to the propagation of the contagion.

"It appears to me, says Dr. Calvert, that this contagion or principle of plague is diffusible in the atmosphere to a distance greater or less from an infected body, according to the climate and season of the year, and possibly to other peculiar states of the atmosphere, with which we are unacquainted; that in the spring or summer season a single infected person is sufficient to contaminate the air of a whole city; and that those who happen to be then exposed to febrile causes or otherwise predisposed are the first to become its victims. That these newly infected persons generate a fresh supply of poison, increasing its strength and influence, till at length it becomes so powerful, that nothing but the winter season will entirely put a stop to it."

The various reports that have been so industriously circulated concerning the contagiousness and non-contagiousness of the plague, especially as it prevailed in the army of the East, and the contradictory statements that have been made relative to Baron Desgenettes, induced me, while in Paris in the spring of 1816, to seek an interview with that gentleman, in order to ascertain the truth on this interesting subject. Dr. Delile, the companion of Dr. Desgenettes as a member of the Institute of Egypt, accompanied me. What practical advantage may arise from inoculation for the plague we are not yet able to state; that the experiment is not without great danger is sufficiently well ascertained. The Baron distinctly declared that it had ever been his settled opinion that the plague was a contagious disorder; that his extensive experience as an officer of the medical staff, had only served to confirm him in that opinion; and further expressed much surprise, that any account should have been made public representing his views in a different light. The Baron innoculated

himself with the matter of plague, though he felt persuaded that the disease was of a specific character, and had almost hourly evidence of its contagious effects: but more fortunate than the incredulous Whyte, he did not fall a victim to the experiment.

I am aware how confidently the case of Dr. Whyte has been denied. So far however from any doubt being entertained by the medical philosophers here, as to the accuracy of the statement of his inoculating himself with the matter of plague, it is well known that his preconceived notions of the nature of that pestilence, were the cause of his rashness and premature death. Of this I have been assured by personal communication with Sir Gilbert Blane and Sir James M'Gregor.

When I took pen in hand, I did not expect to produce so long and tedious a letter. My apology must be the nature of the subject, interesting, beyond all others, to an American physician.

With due respect I remain, dear Sir,

Your friend,

JOHN W. FRANCIS.

Dr. David Hosack,
New-York.

A

LETTER

TO

THE MANAGERS

OF THE

ROYAL INFIRMARY OF EDINBURGH,

FROM

WILLIAM FERGUSSON, M.D. F.R.S.E.
INSPECTOR OF HOSPITALS, AND FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

——— Tempus non his eget
Non tali auxilio.

Hæc animo ante tubas prius tecum ipse voluta;
Galeatum sero duelli pœnitet.

EDINBURGH:
PRINTED BY GEORGE RAMSAY AND COMPANY.

1818.

LETTER, &c.

GENTLEMEN,

WITHOUT any previous desire, or even idea, that such an opportunity of being useful might exist for me, upon the suggestion of a friend well qualified to form an opinion how the requisite medical superintendance of patients affected by fever, at the ward obtained within these few days, by the grant of Government, in the barracks of Queensberry House might be provided, I was induced to make this offer.

" To the Managers of the Royal Infirmary of Edinburgh,

" GENTLEMEN,—Understanding that a grant has been obtained from Government of accommodation in the barracks of Queensberry House for the reception of patients affected by fever in aid of the Royal Infirmary, and under your direction, I beg leave respectfully to submit to your consideration the inclosed statement of my expe-

rience and services in the Hospital Department of the British army, and the latest testimonies from the public records of my country, of the reputation I have obtained.

" It has been my destiny to go through two several courses of duty in the West Indies, and my reports, as chief of the Medical Staff, relative in particular to the management of hospitals and treatment of fever in each of the sixteen British colonies which were under my care, are now before the Cabinet Council of his Majesty. When at the head of the Medical Staff in Portugal during the last war, a typhus fever had been most destructive in that kingdom, until a plan and regulations proposed by me (which, with your permission, I would likewise submit to your consideration,) was adopted and carried into execution. In all other climates and situations, I have also sought and enjoyed the best opportunities of studying the management of hospitals and the treatment of fever in particular. I have, indeed, but to refer to the history of the eventful years, and of the foreign stations, mentioned in my statement, as proof that I must have had under my superintendance more cases of that distemper than could possibly fall under the observation of any individual whatever in civil life.

" It is upon these public grounds only that I can presume to offer myself to you as a candi-

date for the appointment of physician to this establishment, and I have the honour to be,

Gentlemen,
Your most faithful and most
obedient humble servant.
William Fergusson, M. D.
Inspector of Hospitals.

" *Edinburgh*, 26*th January* 1818."

The statement of my services, here referred to, was this:

" Twenty-four years' active service on full pay, with the exception of the year of the peace of Amiens, viz.

As Hospital-mate in the Low Countries during the campaign of 1794.

As Regimental Surgeon in England in 1795.

In the West Indies, at St Domingo, in the years 1796, 1797, and 1798, and in Holland in the year 1799.

As Staff-surgeon on the Home Staff in the year 1800. At Copenhagen with Lord Nelson, and in the Baltic in the year 1801. On the Home Staff in the years 1802 and 1804.

As Deputy Inspector of Hospitals and chief of the Medical Department in the Western District, and in the same capacity in the Kent and Sussex districts of England in the year 1807, with the superintendence of 49 Military Hos-

pitals of different descriptions. On the expeditions to Gottenburgh and Portugal in the year 1808, and in 1809 as Chief of the Medical Staff at Oporto, Talavera, &c.; and as Inspector-General of the Portuguese army during the years 1810, 1811, and 1812.

As Inspector of Hospitals with the British army in the Peninsula in 1813. In 1814 selected to superintend the Medical Department of the armament orderedagainst New Orleans under the command of Lieutenant-General Lord Hill, which did not proceed on account of the force having been reduced from that of a Lieutenant-General's to a Major-General's command, and therefore not requiring an officer of the Inspector's rank on the Medical Department. In 1815, 1816, and 1817 as Inspector of Hospitals for the Windward and Leeward Colonies of theWest Indies.

In whole, 15 years of foreign and 8 years of home service, exclusive of the year of the peace of Amiens, which was spent in travelling with a view to professional improvement, and in which particular opportunities were enjoyed of visiting the hospitals, civil and military, of Germany, Denmark, Sweden, and Russia."

The latest testimonies from the records of my country, also produced, were these:

Extract from dispatch of Lieutenant-General Sir James Leith, on the capture of the Island of Guadaloupe, dated August 1815:—

"The Medical Department was conducted by Dr Fergusson, Inspector of Hospitals, in the manner that was to have been expected from his character, his experience, and his abilities."

"*Head-quarters, Barbadoes, June* 12, 1817.

"Extract General Orders.

"The Commander of the Forces (*Lord Combermere*) has granted the following leave of absence:

"STAFF.

"Dr Fergusson, Inspector of Hospitals, six months from the period of embarkation, to return to the United Kingdom, in consequence of a communication from the Director-General, announciug that a successor has been appointed to Dr Fergusson, as senior medical officer in this command.

"The Lieutenant-General desires, upon this occasion, to convey the high sense he entertains of the zeal and ability manifested by Dr Fergusson during his service in this army, which the very able and judicious reports made by him upon all points connected with the Medical Department clearly prove, evincing professional skill,

local knowledge, and most praiseworthy feelings of humanity.

(Signed) H. S. Berkeley, D. A. G."

Extract from a Letter of the Army Medical Department, dated 27th August 1817.

"On this occasion, and on leaving your active duties in the service for the present, we beg to express our satisfaction with your superintendence of the Medical concerns of the army in the West Indies. We beg you to accept our thanks for the valuable, scientific, and satisfactory reports which you have forwarded to us on the health concerns of the army in that quarter, and more especially for those on the different islands as you inspected them. These reports, which convey much information relative to the hospital concerns of the service in that quarter, are not less creditable to you as a professional man, than to your able, zealous, and indefatigable discharge of the important duty of inspection of the West India colonies, and they shall be preserved as valuable records in this office.

(Signed) J. M'Grigor, Director-General.
W. Franklin, Principal Inspector."

A separate letter, from me, written under an impression that a mistake might otherwise prevail, afterwards intimated to you, that the service

I tendered was gratuitous, and merely to aid the present most learned and eminent physicians of the institution, by relieving them of the superintendence of the new and separate establishment while it might subsist.

To these, I had the honour to receive the following unexpected answer:

"*Edinburgh, 27th January* 1818.

"Sir,—The managers of the Royal Infirmary have directed me to acquaint you, that the present physicians, Dr Hamilton and Dr Spens, have stated to them their willingness to undertake the charge of the additional Fever Hospital at Queensberry House, with the aid only of an additional clerk; and, therefore, the managers have no occasion to avail themselves of the very handsome offer you have made of your gratuitous services. I have the honour to be,

Sir,

Your most obedient servant,
Alex. Boswell, Clerk."

But from the labours and observations of my life, I know too well, that the estimate of the additional burden of duty, in a situation distant from the main hospital, and of the consequent necessity for the aid of an additional physician, which had been originally made by the most competent judge of that matter has not been

beyond, but beneath what must be the result upon actual experiment of the very shortest trial of this new establishment in Queensberry House. It is impossible, too, that eminent physicians, in active practice, and already subject to all the duties of the greatest hospital establishment in the kingdom, can be long required, or even permitted, to make this gratuitous sacrifice; because, the gratitude of their fellow-citizens, so justly due to their meritorious services, would be ill manifested by taking advantage in this manner of their generosity.

With still more certainty, if possible, I know that the best "clerk" who ever recorded a medical case, or engrossed a medical report, cannot supply, by his labour, the smallest portion towards the discharge of the peculiar and exclusive functions of the physician. And to introduce under the name of a clerk a practitioner of medicine for the performance of these functions, is a thought which never could enter into the head of any of the honourable Managers, which the no less honourable Physicians of the Infirmary would stamp with their indignation, as the suggestion of a base and deceitful mind, and which every honourable member of my profession would spurn from him with contempt. Hence, the necessary inference arises, that it must yet become requisite to provide a physician for this new establishment; and having myself once entered the field of competition,

and received an acknowledgment so flattering to me from that official board, to whose disinterested and unceasing labours of humanity, the far renowned medical school, and the whole inhabitants of Edinburgh, have, for more than half a century, lain under incalculable and still accumulating obligations, I trust, that, in the face of the evidence I produce, it cannot by any one be deemed officious, to submit, in this form, to more particular consideration, my pretensions in the event, which, on these grounds, I still contemplate as probable.

The apparent egotism of my detail cannot be more irksome to any of you than it is to me. I endure it only because I have not been able to discover a way of stating personal experience without mention of the individual, even when that experience which he reports happens to be his own. The propriety again of printing such narrative, depends entirely upon the nature of the object it is meant to serve, and the value of the inferences drawn as subservient to a good and legitimate object. Now, it seems to me impossible to dispute that every establishment and arrangement relative to a public hospital, supported by voluntary contributions for the relief of the poor when affected by disease, is a fair subject of consideration to the whole community. Every one, I conceive, is likewise

not only at liberty, but called upon to furnish with freedom all suggestions which he deems useful. It farther appears to me, that extensive experience only can supply information that may be really valuable in forming any new establishment of this description, or judging of any measure concerning such institutions. But it is not for me to decide whether my experience is of this quality, or whether it can supply any observations that are of value. I again submit, with very great deference, that matter to the test of your more impartial judgment.

My professional education commenced with a complete course in the University of Edinburgh, in the record of which my name appears matriculated for no fewer than eight several sessions;—I also went through a regular apprenticeship, in the house of Mr Russel, your excellent professor of Clinical surgery;—previous to attending at St Thomas's Hospital of London, I served as an operative-assistant in the Royal Infirmary here, of which, in the phrase of the house, I am "a perpetual pupil," and to which, from grateful recollection of the advantages I then derived, I have, through life, and in my own various hospital practice, retained and avowed a filial and peculiar attachment.

Looking forward to the natural termination of my service in the highest Medical Depart-

ment of the army, I, several years ago, was admitted a Fellow of the Royal College of Physicians of Edinburgh; and when I lately returned to settle here among my brethren of that College, after 24 years of public duty, I did not choose to enter upon civil practice, by virtue of the legal and most honourable privilege of freedom in the learned professions, as well as in all other callings of civil life, bestowed by the statutes of this Empire upon its veteran servants, but spontaneously paid the full fees of the College, like any ordinary intrant. I have, therefore, been a stranger to this place, and to this College, only while I was acquiring that experience, which the course of public duty I have gone through, alone could afford to me; and I can never suppose, that, after these facts have been here explained, the nature and proofs of such experience as mine, acquired during fifteen campaigns of constant exposure, and often in the most insalubrious climates of the globe, or to danger in the direst warfare which Britain ever was compelled to wage, shall be held by any one as grounds, not of preference but of exclusion from any part of the duty or practice of my own medical faculty in the metropolis of Scotland.

Upon the present occasion, there can be no other question but the single point,—what is most expedient for the prevention and cure of

Typhus Fever, or dissipation of any alarm which may be groundless, if such shall exist at this moment in this city of Edinburgh. It was, with profound deference, and, in truth, with no small degree of hesitation, that I have already proposed to submit to the judgment of the Managers of the Royal Infirmary the means which I conceive, that the accident of my destiny in life (for such it must be held, if I were absurd enough to claim any personal merit from the circumstance) has bestowed upon me. I now, therefore, proceed to lay before you some outline of the general nature of that experience, from which these supposed means of being useful, on such an occurrence as the the present, ought certainly to have been derived, whether it has been my fortune to secure them to myself or not.

During the year 1794, in the humble situation of an hospital-mate of the British Army in the Low Countries, it was my fate, first upon this very subject of Typhus Fever, to compare the views I had obtained from the lectures of my learned and eloquent teachers,—from my private studies,—and from the best theatres of civil practice at the Infirmary of Edinburgh, and in St Thomas's Hospital of London, with the awful visitation of that dreadful distemper, when, like a pestilence, in despite of all human exertion and vigilance on the part of our Generals, and of my Medical Superiors, through the

influence of causes operating by the decree of Providence, in the very brunt of war, and extremest rigour of season, more than half of our gallant troops were swept away in its ravages, before our winter retreat into Germany was concluded. The impressions of all the forms of the disease, and of all the exigencies and expedients of hospital practice made upon my mind by what I then saw, were as much stronger than those I had formerly received from what I had seen in civil practice, as I can conceive the impressions of actual warfare of the conquerors in the campaigns of Wellington, to be stronger than those they had originally formed of their art, when training on the secure and peaceful fields of Britain. Nor could it be otherwise. In common with all my comrades, I was a constant actor and assistant in the hospitals. I refer you to Dr Rogerson the Younger, now in this city, then a physician of our forces, for evidence, the value of which you well know, upon the fact, whether I was not, in that single season, compelled to partake of more actual practice in the treatment of this distemper, than I could probably have had, if I had seen all the cases which have since occurred in Edinburgh, down to the present hour. Certainly, in the hurry of these scenes, never to be erased from the recollection of the survivors, I could not distinctly meditate upon the remote and proximate causes of the malady, and upon the modes of prevention and

cure, which might be brought into action in a more settled state of suffering humanity. But when that situation did afterwards occur, the materials for such reflection could not fail to be the most fresh in the stores of memory; and, I venture to say, as to all of us, bore a stamp which nothing in the medical practice of civil life could have impressed.

But if this impression had not been sufficiently strong, I had next, in the years 1796, 1797, and 1798, to perform the duties of a surgeon, generally in garrison, and much in the hospitals, under the still more destructive scourge of the yellow fever, in St Domingo, which there swept off many entire corps, and went near, more than once, to annihilate the 67th regiment, which was my particular care. Upon my practice and exertions at this period, I refer you to the Honourable Lieutenant-General Sir William Stewart, now in this country, whose garrison surgeon I was for some time, while he commanded at Cape St Nicholas Mole; and who, I doubt not, may again state to you upon this head, more than it would become me to repeat.

I should pass over my service in Holland during the campaign of the year 1799, although the casualties of five general actions, and the diseases of an army in the field during the autumnal season of that unhealthy country, furnished abundance of practice to the whole medical depart-

ment, were it not for the approbation with which his Royal Highness the Duke of Gloucester was then pleased to notice the performance of all my medical duties in his brigade. I was till then altogether unknown to his Royal Highness. But it is my pride to say, that his countenance has never since been withdrawn, and has often upheld me. Upon a fit occasion, I might still venture to resort to his high testimony, were it requisite. I presume not to think that the present is an occasion of this kind. But if in this I am mistaken, I feel warranted to state, that his Royal Highness will deign to satisfy any suitable inquiry.

In the year 1801, it was my fortune, while acting as Staff-surgeon to the land forces of the expedition in the Baltic, to be on board the flag-ship of Lord Nelson in the battle before Copenhagen; and I was afterwards particularly selected by the Naval Commander in Chief, Sir Hyde Parker, to superintend the removal of the wounded and sick to Yarmouth, immediately after the action. The hero of Trafalgar, as well as his illustrious superior, on this particular service, are now no more. But I again refer you, to the Commander of the land forces on that occasion, the Honourable Sir William Stewart, who, happily for his country, still survives. He can inform you, if the published histories of Lord Nelson, and the records of our great Admiral's

nearest relatives had not already shewn, in what estimation I was afterwards held by his Lordship. I also refer you to that execellent physician, my much respected friend, Sir Gilbert Blane, then Chief Commissioner of the Sick and Hurt, who can satisfactorily inform you in what state I delivered over my whole charge upon my arrival in Britain from the Baltic.

My experience in the whole course of the peninsular war is more recent; and, in my letter of the 26th current, I offered to submit to your consideration a plan of mine to arrest the progress of a Typhus Fever that had depopulated whole districts of Portugal, and threatened destruction equally to the inhabitant of the palace as of the hovel, throughout the whole of that kingdom. I made this offer, because that plan, being approved of by the government, I had the high honour to be chosen a member of a Board of Health at Lisbon, at which sat our Ambassador, now his Excellency Sir Charles Stewart, Minister Plenipotentiary of Great Britain at the Court of France, and another distinguished member of the Portuguese Regency, with several of the great civil officers of that country, by whom it was adopted; and because the regulations there suggested by me, in the course of less than three months, during which this Board sa unceasingly, and enforced their execution, proved completely effectual. For evi-

dence upon all that respects this happiest circumstance of my professional life; the sole reference I deem it necessary to make is to the plan itself, and to the paramount authority of his Excellency Sir Charles Stewart.

This plan embraced the regulations found to be requisite relative to hospitals; to medical attendance; to the assistance of the clergy and magistrates of the kingdom; to parochial visitation throughout its whole extent; to civil and medical inspections and reports; to the form and audit of accounts; to responsibility and discipline in the execution of the whole duties; to the supplies and maintenance of the sick, and of the hospitals; to the purification and cleansing of the patients and their habitations or wards; to all returns and reports necessary in the system; and in particular, to the whole measures regarding the health and police of the afflicted towns.

This was a system, you will observe, purely civil, and independent of that which separately existed at the same time, and also under my charge, for the whole troops in Portugal. But I may be permitted here to mention, that under the latter, as established by me upon similar principles, the Portuguese army, which in all former wars, and previously in the late contest, had been peculiarly liable to contagious and destructive fevers, and from the defective state of

its hospitals, was unable to keep the field, became not less healthy than the British, and was provided with hospitals not less perfect, for every exigency of service. Here too I can likewise refer to the record of this other system itself, which I have here in my possession. But there are likewise many witnesses, several of whom were most meritorious co-operators in this work of reformation now among you in this city; and I know that they will bear an unqualified testimony to what I now state.

Certainly, however, the whole political regimen and frame of society in Portugal, were totally unlike those under which we live in Great Britain. Here, analogy must therefore altogether fail me; and a careless reader may be only struck with the difference in the state of subordination, and in the arrangements of the people, and in the very style and tone of regulations and orders necessarily adapted to these. But Typhus Fever, I need not inform you, is the very same disease in Lisbon as in Edinburgh—too generally arising from the same causes, and propagated in the same manner, unless prevented or arrested in its progress by the application of the same general means, modified only by the difference of local circumstances. Filth, and an atmosphere tainted by accumulation of human effluvia, when allowed to operate upon constitutions "enfeebled by cold and fatigue, and sorrow and

hunger," as eloquently expressed by my revered and lamented friend the late Dr Currie, will every where originate distemper in the miserable abodes of the poor, and more particularly in great cities, if the more powerful means of the rest of the community are not seasonably, as well as wisely, and scientifically employed, to remove these causes. In the alleys and closes of your Old Town, and in the habitations there piled upon each other under the same roof, I believe there may be found instances of twenty, if not more, dwellings of separate families, the common thoroughfare for all of which is a stair, called a "turnpike," but to which the name would be more appropriate, if any common road or passage were as filthy as these in some cases were when I have visited them, and perhaps may still be. Is there any situation in Lisbon more likely to engender Typhus Fever than this, if the police, under the direction of medical skill, shall not anticipate the commencement of that contagious malady, and remove those causes of its prevalence, which human vigilance and exertion, *by timely measures*, may easily and certainly counteract. I believe that in this, by nature most healthy situation, these measures are as likely to have complete efficacy as in any other place of the universe. The contagion may, however, from agencies we neither see nor know, nor can arrest, hang unseen over any abode which can be

selected by the prudence of man. When it does break out, much greater skill and exertion must be employed to arrest its progress, and expel the taint. If it gains head in any considerable collection of people, I venture to predict from experience, which leaves me no pretence of hesitation, that the danger is general and great; more especially, if the patients shall be collected into one ward or house, unprovided with any one of all the requisite and best means of prevention and cure, and these, too, in their most effective and perfect state, no medical man will deny, that such a receptacle must become a reservoir of contagion, which may speedily inundate the whole land with pestilence.

The promptest separation of the infected from the healthy, is, indeed, the most important of all measures at such a crisis, provided that they can be removed to suitable and completely detached hospitals, where purification is perfect, and ventilation duly enforced. But the provision and regulation of such an hospital as this is the first and most indispensable preliminary of the benign work. In framing the system for Portugal, we were reduced to the painful necessity of abandoning this attempt, and even of preserving silence as to its importance, because the funds were altogether inadequate to provide such asylums for the sick, the number of whom had accumulated to an enormous degree, through want of

timely provision, the generous bounty of Britain having unavoidably come too late to prevent the miseries which it did afterwards supply powerful means to alleviate. Had the sick of Portugal been then collected, and thrown into hospitals unduly provided, these hospitals must have become pest-houses, in the literal sense of the term, and could have sent them forth again only to their graves. To the rest of the people, likewise, such hospitals must have been as pregnant with pestilence as with death to them. Should the sick of Edinburgh, infected by typhus fever, then, ever so accumulate, it will be vain to look for succour to the chair of the Professor, however gifted and revered, or to the talents of the most eminent and beneficent civil practitioner. Experience of similar calamities only can avail in arresting the epidemic current of pestilence; and it is no assumption to maintain, in the face of the world, that those alone who have spent much of their professional lives in fleets and armies, and amongst organized bodies of men, where pestilence of the same description has frequently occurred in its most alarming forms, can be qualified, at least by habit, to contend with the scourge. In this happy and well-governed land, it can, however, be no disparagement to our professional men, who have practised only in civil life, that they do want the experience necessary for such a crisis; because it is the very excel-

lence of their own practice and precepts, which, if it has never eradicated, has at least availed to prevent, the contagion of typhus fever, in its ordinary state, from becoming formidable amongst us, and by the result of their own merits, they are thus disabled from acting with the same knowledge and effect in an emergency which they have never witnessed, as individuals, far inferior in other qualifications, may, to whom it has been long familiar. I, with profound deference, farther contend, that these two several and distinct kinds of experience,—the one derived from familiarity with contagion in its ordinary state, and in civil life,—the other derived from familiarity with contagion in its most concentrated and aggravated forms,—must bear the same comparative value, when any attempt shall be made completely to eradicate for the time this formidable scourge, in a city where it has in any degree taken root.

These remarks must at least serve to prove the importance of most careful and deliberate inquiry, and to lead to the conclusion, that your new establishment should, as nearly as possible, be put upon a footing not less perfect than the fever ward of your Royal Infirmary would be, if it were in a house altogether detached from the wards of the other patients in that establishment, and without depriving the parent

institution of any part of that excellent medical superintendence under which it has attained the estimation it possesses.

With these views, I had the presumption to think, that the experience of the most energetic, persevering, and general arrangement, with which I have been personally acquainted, might be of some little utility here, and at this moment. As no reason has been yet given to me for altering this opinion, and as my sole object continues to be that utility, it only remains for me to repeat the same offer to you, with the additional and necessary explanation which I have now endeavoured to give. It also appears to me, that the mode I now take, of printing this letter, is the best I can select for intimating my readiness to afford the communication to any person by whom it may be desired. To explain my grounds for believing it might perhaps be of some value, your former answer, which my own inadvertency to this defect had not led me to expect, has shewn to be indispensable. I have done so with a most anxious desire to reject all the technicalities of expression to which I have been accustomed; and thus, if in my power, to speak upon a point which undeniably concerns the whole community, so as to be perfectly understood by those who are not professional men, as well as by those who are.

In concluding, I have but to beg that you will accept my grateful acknowledgments for the opportunity you have afforded of making this statement, and I have the honour to be,

GENTLEMEN,

Your most faithful and obedient

Humble Servant,

WILLIAM FERGUSSON.

Edinburgh, No. 4, George Street,
January 31, 1818.

REMARKS ON SOME LATE PUBLICATIONS ON THE PRESENT EPIDEMIC FEVER.

1. *Edinburgh Clinical Reports, &c. By Dr Duncan Jun. Edin.* 1818.
2. *Observations on Contagious Fever, &c. By Dr Yule. Edin.* 1818.
3. *Observations on Continued Fever, &c. By Dr Graham. Glasgow,* 1818.
4. *Statements relative to Epidemic Fever, &c. By Dr Millar. Glasgow,* 1818.

IT has long been a matter of regret to us, that we have never been put in possession of a regularly connected series of facts illustrative of the internal history of the various hospitals of the empire;—particularly of the noble charity that has so essentially contributed to the high character which our school of physic has so long and so justly maintained. The practice and precepts of clinical medicine also, as pursued in British hospitals, have been principally recorded in the fleeting and desultory pages of the student's note-book, or in the medical records of the establishments themselves, which to the public in general are nearly as inaccessible as the memoranda of private individuals. In one of the publications before us, Dr Duncan, junior, has presented us with a plan, which, in a small compass, appears to us to combine many of the points requisite to be noticed in the documents, the want of which we lament; and notwithstanding the modest quotation from honest old Kirkton, prefixed to his book, "I think, better I had ane imperfect account transmitted, than none at all," we are convinced that a perusal of it will convey to his readers, whether medical or not, a satisfactory view of some of the results of that benevolence and skill, which have for nearly a century distinguished the medical practice of the Royal Infirmary of Edinburgh.

The causes which led to Dr Duncan's publication were, first, the parliamentary inquiry which had recently been instituted into the state of fever in the metropolis of England; and secondly, the example set by the hospitals of Dublin, Cork, Glasgow, and London, in the admirable descriptions of the reigning epidemic, which have been communicated to the public by the physicians of these institutions. We shall present to our readers, in the course of our observations, some of the more interesting facts connected with the "Statistics" of fever, if we may adopt the expression, contained in these communications. The results of the inquiry in parliament, we shall not at present enlarge upon, our views being in no shape directed towards the neglects, or alleged neglects, of any institution; but we shall merely state, that, while some of the hospitals of England, content themselves with giving a meagre annual detail of the numbers of sick that have been admitted or died within their walls, others do not publish even these unsatisfactory notices, and some, from keeping no records, possess not the means of affording any information whatever on the subject.

Independent of the urgent calls which the indigent sick naturally have

upon our humanity, and the satisfaction we enjoy, in a consciousness of having discharged a paramount duty to these unfortunate fellow-creatures, we have a more personal and tangible interest in the institution of public hospitals. This interest divides itself into immediate self-preservation by the removal of the diseased poor from our own doors;—and the less urgent, but scarcely less important, precaution of separating them from the general mass of their fellow-citizens in a similar class of society, with whom, either directly or indirectly, we hold communication almost every hour of our lives. Besides these advantages, we look up to public hospitals as affording practical schools for the education of those, to whom we entrust the health and the lives of ourselves and our families, and we view them as a central point from which may emanate all such improvements in medicine, as may have passed the ordeal of impartial trials on numerous individuals, instituted by humane and scientific men;—a field of experiment which no private practice, however extensive, can afford. All these, but very especially the last, we conceive the public have a right to look for, as a return for the liberal support which they bestow on such establishments.

In the reports now before us, Dr Duncan takes a much wider range than a bare narration of cases; he enters upon the consideration of some very important points of medical police; and in doing so, he professes to "have quoted no authorities, and entered into no controversies, but merely to have attempted to give an abstract of what he saw and of what he did;" and if every clinical physician would but follow this example, and in a simple, condensed, and even popular form, submit to the public the results of his views and his professional exertions, we are convinced that he would, in discharging this act of duty, confer a most important benefit on society. Indeed, we conceive, that one of the most judicious regulations that could be introduced into the management of all public hospitals, would be to provide not only for a periodical account of the expenditure of their pecuniary funds, but also for a summary view of the results of their medical practice, embracing a general account of the admissions, recoveries, and deaths, with a particular detail of the nature and extent of the principal diseases, especially if epidemic, their modifications by season, situation, sex, profession, and modes of living, the extent and more obvious operation of their contagious qualities, and the respective merits of the different plans of cure adopted, with the comparative success which has attended their adoption at various periods. Nor is this a visionary or Utopian scheme; it has been required from, and executed by, the physicians who attend the fever establishments recently instituted in Dublin; it is followed, as we are informed by Dr Duncan, in all the military hospitals throughout the empire; and since its introduction into them, under the auspices of our distinguished countryman Sir James M'Grigor, we are assured, from the best sources of information, that it has effected more in three short years for the improvement of the army medical practice, than had been attempted for the preceding quarter of a century, the period from which may be fairly dated, the general introduction of scientific men into military employments in our islands.

Among the numerous advantages which may be derived from such reports, those peculiarly the product of emulation, are by no means the least considerable. To a superficial observer, the palm of superiority might appear due to that hospital within whose walls the fewest deaths occur; but a proper degree of reflection will at once point out to us, that many more circumstances are to be taken into view; and unless a general statement of these accompanies the reports of an hospital, it is quite absurd to think of calculating correctly on its utility to the public. The leading circumstances which strike us as necessary to be attended to, are,

1*st*, The numbers which receive relief from the establishment. These again are to be considered with a view to determine the mildness or severity of the cases, their acute or their chronic nature. Thus more deaths will happen among cases of a severe contagious fever, than in less serious complaints; and it is equally obvious, that the injuries which occur from the powerful machinery employed in

large cities, and unhealthy manufacturing towns, will be more dangerous than ordinary accidents among robust inhabitants of country villages. Nor should we omit in our calculations, the more important operations of surgery, to which fatal effects so frequently succeed. A very few such consequences, would at once turn the scale of mortality against an hospital which had the highest pretensions to general excellence; for, as Dr Duncan well observes, "a high mortality may depend upon a proper selection of dangerous cases, as well as upon improper management and unskilful treatment."

2*d*, The shortness of the period employed for the cure of the patients taken into the establishment; still keeping in view the nature of the cases received, and, above all things, taking care, that while every practicable and salutary indulgence be granted to the actually diseased, neither the lazy, the vicious, nor the chronic incurable, become a burden upon the hospital funds, to the exclusion of real and urgent sufferers.

3*d*, The expence of each patient received into the establishment. This involves a multiplicity of inquiries, and can only be fairly calculated, when the prices of bedding, clothing, food, furniture, medicines, and medical materials, are fully taken into view.

Lastly, That hospital will evidently be the best, which receives the greatest number of severe cases, and dismisses the greatest number of them cured, with the least expence to the funds of the establishment, and the least liability to become a burden upon them again by relapsing.

A valuable addition to the reports which we so much desire, would be an ample account of the medical topography of the place where the hospital is situated, with a full description of the accommodation for the sick, the nature of the building, and size of its rooms; its means of ventilation and cleanliness; the number and extent of its offices, its kitchens, wash-houses, baths, &c. &c.; and a full account of the diet of the sick, as to quantity and quality, with the average expence *per diem* for each class. This information might form a principal part of the first report, for the purposes of after reference; and to all the subsequent ones should be added a faithful statement of every important change which may have occurred in their intervals. A comprehensive meteorological register should also accompany the report, not merely containing an account of the number of days which were hot or cold, dry or rainy, with the winds which blew at each period, and the forms assumed by the clouds; but an account, as far as had been observed, of the influence of these changes of the weather on the number and nature of the diseases treated.

In the Royal Infirmary of this city regular journals of the practice have always been kept; but to this species of diurnal detail Dr Duncan strongly recommends the addition of a tabular scheme, into which the leading particulars might be entered, so as to present the results of a multitude of insulated cases in one uniform view. The plan which he himself recommends, is one which embraces the disease, name, age, sex, and profession of the patients, and, in cases of contagion, their residence also; the cause, or supposed cause, the commencement, crisis, duration, and result of the disease, with notes upon its mode of treatment. It is not our intention to follow him throughout the purely medical part of his observations; but we shall present to our readers some of the information elicited by his tables on the important subject of our epidemic fever, in which every individual is more or less interested.

The whole number of patients admitted into the clinical wards of the Royal Infirmary, with epidemic fever, during the six months of Dr Duncan's attendance, were 89, viz., 28 males and 28 females in winter, and 19 males and 14 females in summer; they were of all ages, from 5 to 69; he has not been able to give much information as to their professions, or whether their occupations were sedentary or active, carried on in confined apartments, or in the open air, whether they were servants in or out of place, or whether married or single; these points, however, should all be ascertained in future tables. Their residences, also, should be distinctly marked, in order, as Dr Duncan well expresses it, "to form a record by which we might trace with certainty

the commencement and introduction of such diseases, their progress, and their decline,—their favourite haunts, if we may use the expression; and furnish the magistracy and police with information by which they may be enabled to take measures to prevent the introduction, or at least to counteract the diffusion of contagious diseases."

We were anxious to examine into the causes, or alleged causes, of the fever in these 89 cases, and accordingly we find, that 30 were from contagion, (of whom 5 relapsed, 2 of them twice,) 10 from cold and wet, (one of whom relapsed,) 4 from cold and fatigue; 2 from cold alone; 1 from cold and intemperance; 1 from wet alone; 1 from wet and exhaustion; 2 from heat and fatigue; 1 from fatigue alone; 1 from intemperance alone; 1 from distress; 4 from relapses in their own houses; and 31 from causes unknown; (one of whom relapsed twice.) It is highly probable, however, that several of these causes were frequently combined.

The average number of days the patients were under treatment in the hospital was 25 for the men, and 27 for the women during the winter quarter, and 18 for the men and 21 for the women during the summer; from which it appears, that men were sooner discharged than women, and that both sexes remained a shorter time in hospital in summer than in winter.

Of the 89 cases 7 died. The comparative mortality of the men in the winter months was 1 in 28; of women during the same period, 1 in 14; of men in the summer months, 1 in 6$\frac{1}{2}$; of women, 1 in 14. Average in both periods, 1 death in 11$\frac{3}{4}$ of the men, and 1 in 14 of the women, or 1 in 12 5.7 of both sexes; viz. 1 in 18$\frac{2}{3}$ in winter, and 1 in 8$\frac{1}{2}$ in summer.

"This mortality," as Dr Duncan observes, "is certainly sufficiently great to show the severity and danger of the disease; but the numbers are much too few, and the circumstances of the clinical wards too peculiar to afford a fair average of the rate of mortality." We shall find, however, that the greater mortality among the males than among the females, is rendered still more obvious, by the result of similar inquiries at Glasgow.

We apprehend, that, from even this sketch, our readers will be convinced of the valuable and curious matter that might be collected from tables such as those suggested, and in part drawn up, by Dr Duncan, if a regular and uniform plan were instituted, and acted upon in all the hospitals in the empire. Neither our limits nor our plan allow of our going along with him in his medical observations, nor of examining the cases which are contained in an appendix; and which illustrate the facts stated in the body of the work.*

In this appendix, also, are given some valuable dissections, interesting on many accounts, but particularly so as having been performed by that lamented physician, "whose warm heart, with all its generous and open vessels, is now compressed into a clod of the valley." "To me," says the author, alluding to these documents, "they are particularly interesting, as being the last fruits of my professional intercourse with the late Dr John Gordon, whose zeal and science as a pathological anatomist, qualified him so eminently for the situation he filled in the hospital, and whose private virtues made him most beloved by those who knew him best."

There is every reason to suppose, that it is to the influx of Irish labourers to this country we chiefly owe the present fever, and it is probably from us that it has passed, in various instances, into England. That the disease originally proceeded from poverty, and its concomitants, hunger, cold, and rags, aggravated by filth and intemperance, all pressing on the desponding inhabitants of overcrowded and insufficient lodgings, there can be little doubt. Of its progress, some idea may be formed from the following facts: The Fever Hospital of Dublin, which was opened in 1804, and admitted that year only 422 cases; in 1810, when fever became very general all over Ireland, admitted 1774; and in the year 1817, 5745 patients! The Hardwicke Fever Hospital of the same city, increased, between the years 1813 and 1817, from 1842 patients to 8915!

In an excellent report on the Fever Hospital of Dublin, by Dr Stoker,

* Dr Duncan alludes to one singular case, where the skin of a native of Bengal had become almost entirely white without the agency of obvious disease.

which now lies before us, some of the causes of this increase of fever in that city are well pourtrayed. One of these is the surplus of females over the other sex amongst the labouring classes; the effect of this disproportion, says Dr Stoker, "has been, that adult females, whose duty it was to provide and prepare wholesome food, and to attend to the cleanliness of the persons and residences of their families, were compelled to undertake the employments which had been sustained by men; the aged, the infirm, and the helpless young (their immediate care) being thus neglected, filth of all kinds accumulated around them; their habitations became ruinous, and their apartments, into each of which numbers crowded, in order to lessen, by dividing, the expence of rent and taxes, became so many laboratories of noxious vapours, sometimes more like the neglected cemeteries of the dead, than habitations for the living."

Their diet also was both scanty in quantity and of most inferior and even unwholesome quality; their fuel for preparing it was scarce; but above all they suffered from the paralyzing wretchedness of hope deferred, or rather of hope destroyed. "Many years continuance of misery," says Dr Stoker, speaking of the worn out and diseased pauper inhabitants of Dublin, "has nearly extinguished all that hope and buoyancy of spirits for which the poor people of this city were remarkable in their better days; these have been succeeded by indifference to their situation, or the encroachments of disease, or even death itself, —surprising and even unaccountable to a casual observer,—which is the more to be deplored, as it leads many of them to neglect the means of preservation when afforded."

While disease, famine, and despondence, thus spread from the capital to the most distant cottages of the sister island, both the government and private individuals endeavoured to check their united progress. The late Marquis of Abercorn was pre-eminently distinguished for his humane exertions. His territory, containing upwards of 11,000 inhabitants, was portioned out into districts under the superintendence of health inspectors, who carried into execution the cleansing of the houses, and the enforcement of proper rules for the prevention and cure of fever, aided by prompt and effectual pecuniary support from the noble landlord. The consequence of this excellent arrangement was, that no more than 22 deaths occurred out of 756 persons who were taken ill after its adoption, while before this period 2535 were afflicted with the fever, of whom 209 died. This is an act of which we trust many individuals are capable, although their means of gratifying the dictates of their feelings, equal not those of the deceased nobleman. To praise it, or hold it out as an example is quite superfluous; it strikes at the first glance; it calls forth the best affections of the heart, and redeems ten thousand faults, not of one man alone, but of the whole of that rank in society in which he moved.—Entering as we have done into averages and calculations, we may be permitted to say, that it brings the general body of the national nobility on a par with the gentry and commonalty in active virtue; while, of the individual himself, we may fairly assert, that it proves him to have been a pearl intrinsically "richer than half his tribe."

From Dublin we shall turn to Glasgow, whence on many occasions the contagion of fever has been traced to our own city. From the very able letter of Dr Millar, we find, that, since the year 1812, fever has been continually gaining ground in Glasgow and its vicinity, and that it has nearly *doubled* its numbers every *successive twelve months*; the succession of admissions into the Infirmary for the years from 1812 to 1817 having been 16, 35, 90, 230, 399, 714. The consequence of this rapid progress was, that, instead of being confined to certain alleys and streets, fever in the last year was widely spread abroad in every direction in that city, while the deaths kept pace with this increment, and were found to have doubled annually since 1812. From Dr Graham's observations we find, that of 601 patients under his own care during fourteen months, 288 were males, of whom 33 died; while of 313 females only 19 died; or rather more than 1 in 9 males and about 1 in 16$\frac{1}{2}$ females. In the Infirmary of Glasgow also, for the period between May 1816 and February 1818, the proportion of females received was

greater than that of males, but the mortality was remarkably less; of the males 1 in 7 55.72 died; of the females 1 in 14 22.41. The general average of deaths, including both sexes, was 1 in 10 23.113. At Glasgow, when the higher classes were attacked, the mortality was greater than in the lower, where the disease originated; and it is a very curious fact, that servants have been frequently afflicted, while the families of their masters have remained exempted. Here we may ask, has high living power occasionally to prevent the malady, yet to increase its danger when it actually occurs?—From many considerations we believe it has.

We should now proceed to give an account of this fever as it has appeared in Edinburgh, but we find we have trespassed much more than we designed upon the time of our readers. From Dr Yule's book, however, from Dr Duncan's, and from various papers in our Magazine and in the Edinburgh Medical and Surgical Journal, it will be seen, that it has kept a steady and uninterrupted march. To follow it in this would encroach upon the province of the physician. We shall venture, therefore, to state two medical facts only, a knowledge of which may be of some importance to the general reader, for whom this paper is principally designed. The first is, the great liability to relapse, which peculiarly characterizes the reigning epidemic. The second is, that by the free admission of atmospheric air, its poison is so far diluted or modified, as to be completely destroyed in an immense majority of cases. It sometimes happens, that, notwithstanding all possible dilution and exposure to the atmospheric influence, it is in particular instances still retained, either in the persons or in the clothes of the convalescents, and with the full power of communicating infection at the distance of several days, although the persons communicating it, are to all appearance free from complaint. This event takes place, however, more frequently by remaining for some time in a close room or carriage with them, than from casually meeting them in less confined situations.

We cannot conclude without strongly recommending the perusal of the papers which form the subject of this article, to our readers of whatever class. That their personal safety will be provided for, by adopting the modes of avoiding and checking contagion, pointed out to them in these publications, we are well assured; that the blessings of the poor, and the whisperings of their own hearts, will be a still richer reward to them, we cannot allow ourselves to doubt.—Every street in this metropolis, exclusively inhabited by the lower orders, contains objects for their benevolence, and for their most serious consideration. There, according to Dr Yule's Observations, "they will find the broken-hearted mother, the anxious protectress of her young family, no longer enjoying the decent pride of her past condition,—the industrious careful housewife, in the possession of her own plain, but well kept furniture,—all is now sold, or in the hands of the pawnbroker, without hope of recovery,—whilst her poor dejected partner is uncertain of employment, in many cases at scarcely half his former wages!" If they turn from this heart-rending picture, to the places of reception destined for these unfortunate sufferers, they will witness scenes which cannot fail to call forth their commiseration, and, if duly considered, to ameliorate their hearts. Let the gay and the thoughtless who enter no walls but those dedicated to pleasure, ponder upon the following description of a fever ward, drawn in the simple but unfading colours of reality.

"Among the various inflictions," says Dr Millar, "which the physician is compelled to witness, none perhaps are more painful to contemplate, coupled, as they must be in his mind, with their extreme danger, than those numerous derangements of sense and intellect, it (fever) almost never fails to produce in its victims. Thus, in walking the rounds of a fever ward, one man stares upon you with fiery eyes, and a ferocious visage, while his next neighbour is seen lying in the lowest despondency, his head drooping upon his breast, his face pale, his eyes suffused with moisture, and sometimes tears trickling down his cheeks. A third reclines in a state of entire apathy and stupor, not to be roused, except with the utmost difficulty, and when roused, gazing wildly about, altogether unconcious where he is, and without a single idea of recollection." "Another set lie muttering to themselves, completely absorbed in reverie. The trains of ideas are generally melancholy, but at other times totally the reverse; the patient talks, smiles, sometimes laughs to himself, and, though on the brink of eternity, is totally unconscious of his fate, bringing strongly to mind the affecting picture by Gray, of

"Moody madness laughing wild,
Amid severest woe!"

MEDICAL REPORT

OF THE

HARDWICKE FEVER HOSPITAL.

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HARDWICKE FEVER HOSPITAL,

FOR THE

YEAR ENDING ON THE 31st MARCH, 1818,

INCLUDING A BRIEF ACCOUNT OF AN EPIDEMIC FEVER IN DUBLIN.

(FROM VOL. II. OF THE DUBLIN HOSPITAL REPORTS AND COMMUNICATIONS IN MEDICINE AND SURGERY.)

BY JOHN CHEYNE, M. D. F. R. S.'E. &c. &c.

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1818.

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By J. CHEYNE, M. D. &c.

"This, however, I am convinced of from numerous careful observations, that the same "method which cures in the middle of the year may possibly prove destructive at the "conclusion of it; and when I had once happily fallen upon a genuine method of treating "any species of fever, suitably to its nature, I always proved successful, (proper regard be-"ing had to the constitution, age, and other particular circumstances of the patient) till "that species became extinct, and a new one arose, when I was again doubtful how to "proceed; and, notwithstanding the utmost caution, could scarce ever preserve my first "patients from danger, till I had thoroughly investigated the nature of the distemper, and "then I proceeded in a direct and safer way to the cure."

Sydenham, sect. I. ch. 2. § 3.

AS it is my wish to enable my successors in the Hardwicke Fever Hospital to compare future Epidemics with those which I have seen, I have followed the order of time in the observations contained in these Reports. Indeed, by this order, we are likely to obtain information of the most satisfactory kind, not merely of the nature and causes of fever, but of the treatment also; for, by confining our remarks to the existing Epidemic, we avoid one of those errors which practical men are most liable to fall into, namely, that of extending to a whole genus of fevers, rules which perhaps apply to one species only.

In the course of the year included in this Report, exclusive of the assistance which I received from some of our clinical clerks, I myself made daily reports of nearly three hundred cases of fever, and I also superintended many of the dissections which are annexed to this paper: my opportunities of observation were considerable, and I was not neglectful of them. The reader, however, is advertised, that while I have been anxious to note every thing worthy of remark, I affect to be nothing more than a reporter. I leave the higher office of arranging and systematizing to others.

The year 1817 was a very unproductive one. Although the seasons were rather more propitious to the husbandman than in 1816, the prevailing character of the weather was similar, for in both years there fell an immensity of rain, the atmosphere being cloudy and cold. In 1817 there probably fell nearly as much rain as during the corresponding months of the preceding year; but then, although there was not much difference of atmospheric temperature, the evaporation in 1817 was considerably greater. In short, in the year 1817, as in 1816, the order of the seasons was inverted, the winters in both being remarkably mild and open, the springs ungenial, and the summers wet, cloudy and cold, and in both years there was but little employment for the poor, while at the same time provisions and fuel were scarce and of bad quality. In the three first months of 1818, particularly January and March, there was much stormy and wet weather. In March there were great

floods and inundations of low grounds, so that tillage and spring-work were at a stand.

In a Report which was published in the first volume of this work, p. 50, I have described three species of fever which I observed in the Hardwicke Hospital in the month of February. The first, the fever which had filled our wards during the preceding winter. The second, a variety of fever, of all the forms of that disease which I have as yet seen in the Hardwicke Hospital, alone corresponding with the conception I have of Typhus. There were not more than ten or a dozen cases of this species of fever, nor am I quite certain that these were really instances of Typhus. I confess that I never saw Typhus epidemic, save in the military hospitals in the South of England, where I chanced to be at the time when Sir John Moore's army landed from Corunna. Thirdly, the fever, which became the epidemic of the summer, which was remarkably prevalent all over Ireland. It is stated (p. 51) that the second kind of fever seemed gaining upon the third; a remark, which proved incorrect, into which I was betrayed, by observing the third description of fever frequently attended with petechiæ and dejection of spirits, at the same time that convalescence was tedious, and relapses more than usually frequent. This epidemic I shall now proceed to describe.

In many of the patients the fever seemed to arise from contagion, at least it was not easy, in any other

way, to account for the number of individuals belonging to the same family who were brought into the Hospital about the same time, or in immediate succession: it was by no means uncommon to have in our wards, at once, three, four or five patients from the same house. Between the beginning of April and end of August there were twenty-two or twenty-three houses, or perhaps more properly speaking, lodgings, in different parts of the city, which yielded from two to six patients each. Many of the patients who came into my wards from these suspected lodgings, ascribed their illness to hardships, which probably were only the occasional causes of their fever; for many, who, perhaps the day before seizure, were exposed to cold, wet, fatigue, &c. had, during a season of unparalleled distress, been scantily fed and clothed, had laboured under great depression of mind, and had been in contact, or close approximation, for days or weeks, with persons affected with fever.

Some patients felt an unaccountable dejection of spirits for several days before seizure; some continued at work or labour for several days after their illness began in the shape of a headach, which frequently intermitted; in a few the disease began with intense headach without rigor, the patients being, as they said, at once knocked down; some referred their illness to catarrh or indigestion, and had no suspicion, for the first three or four days, that they laboured under a fever; but, generally speaking, there was nothing unusual in the commencement of the disease. There were rigors, confined bowels, anorexia, headach, sometimes vertigo, dryness of the nostrils, severe pains in the loins and back, and debility; and these symptoms were soon followed by increase of temperature, a degree of fullness of the features, and flushing of the face, which last, was an universal symptom, with all who were admitted within the first week or ten days of their illness. The tongue, in the beginning of the fever, was generally white or grey, slightly swoln, with florid edges; a foul taste was frequently complained of, and several declared that the smell of their own breath was insufferable—a symptom which, I believe, arose from a vitiated state of the secretion from the fauces. Costiveness existed in a great majority of the patients who had not taken any cathartic before their admission.

Symptoms of pulmonic irritation usually set in early. During the months of April, May, and June, of twenty patients who were admitted on or before the fourth day of fever, sixteen had cough, with pain and oppression of the chest, and quickened respiration;—three of these had expectoration of bloody mucus. Of one hundred and seventy five patients who were admitted into wards 1 and 4 during these three months, at least three fourths had cough with pains or stitch, oppression in the chest, and quickened respiration. In many of these there was expectoration of bloody mucus. Of one hundred and fourteen patients who were admitted in the months of July and August, nearly one half were similarly affected.

In the severe cases, about the end of the first week or beginning of the second, rarely sooner, the patients' minds became unsteady, their eyes were suffused; this symptom, at one time, was very general: in five patients of fourteen who who were in No. 1. on the 16th of June, there was suffusion of the eyes, and six more had been so affected, but were recovering; then delirium took place during the night. At all times such patients were incapable of any stretch of attention; they answered questions satisfactorily, though with a faultering voice, but soon wandered from the subject. In many cases the delirium was of a very troublesome kind; first it was only occasional, then it continued all night, then it was uninterrupted. We had many patients who created great disturbance by wandering about the wards all night, prying into the closets, and looking under the beds. Some of these were full of their usual occupations: one man, by trade a cooper, endeavoured to pull his bed to pieces, in order to make a tub of the spars. In several who were habitually spirit drinkers, and who, in the commencement of their illness, by means of cordial drinks, had forced themselves to sweat, the delirium appeared very early.

The state of restless delirium above described, as belonging to the more severe cases, sooner or later degenerated into sopor, often with subsultus tendinum and inability to protrude the tongue, which very awkwardly obeyed the will of the patient: he

would open his mouth, and after various unsteady motions, at length force out his tongue, and when this was accomplished it was not again drawn within the mouth until he was repeatedly admonished to that effect; and when he attempted to lay hold of any thing, he either overshot the object, or he was short of the mark. After continuing in a soporose state, with partial intermissions for a longer or shorter time, generally for two or three days, the bowels being soluble all the while, sleep became calm and natural, with considerable intervals of waking during the day. About the period at which delirium set in, the tongue had often a dark yellow or brown stripe in the middle, the edges being clean and thinly covered with white mucus. In two or three days more it was black, shrivelled, and, as it were, dried up, the gums and lips being sordid and black from incrusted mucus. As the soporose state went off, the blackness and dryness of the tongue went off also, leaving that organ in a more natural condition, more expanded, and again white with florid edges, and moist from a return of secretion, which was sometimes copious. The expression of the patient daily improved. The temperature gradually approached the point of health, the flushing subsided and the inflammation of the eyes, also the complexion became clearer as well as paler, and the eye more expressive. After some of the very severe cases, the pupil for a time continued dilated, and a considerable degree of the deafness, which took place about the height of the disease, remained, and the pulse fell below its natural frequency. The patient

turned upon his side, and about the end of the second week, in many cases, began to attend to external circumstances, and to call for food; but when the fever was severe, these favourable changes did not take place before the end of the third week. The pulse, in general, was more or less frequent according to the severity or mildness of the disease; but there were several alarming cases in which it never exceeded 80. In the evening, and early part of the night, the distress of the patient was in general greatest.

Perhaps it is scarce worth observing, that the flies in great numbers settled on the beds and faces of those patients who were most severely affected with the fever, even when they were extremely restless; as they recovered they seemed to lose their attraction for the flies.

When delirium set in, the symptoms of pulmonic irritation often abated, and the headach also; and when reason was restored, in some few patients, the pulmonic affection recurred. After crisis an attack of cough, difficult expectoration, and dyspnœa, occasionally retarded the patient's recovery. Amendment was ofttimes gradual, without any crisis but by stool, unless sleep could be counted critical; and, in a few, recovery was far advanced, and the patient in the convalescent ward before free perspiration, which was often preceded by rigor, perfected the solution of the disease. In two instances, crisis in this way took place at the end of the fourth week; hence as

relapses not unfrequently occurred, the rigor of solution was liable to be mistaken for the rigor of relapse. The urine, which was examined in a good many instances, was turbid with a furfuraceous sediment. In certain cases, however, it was transparent, with a light cloud suspended in it. In twelve or fourteen days after crisis the patients were fit to be discharged, and they generally resumed their labour before the end of the third week.

These patients who on the first or second day had very violent symptoms—great quickness of the pulse, 130 or more, great flushing and heat of the surface, much anxiety and general distress, frequently obtained a perfect crisis on the third day. Persons under twenty-five years of age had the disease mildly, while it was fatal to persons advanced in life, to those who were prone to the use of fermented liquors, and to fathers of large families, whose minds, of course, were a prey to great anxiety when they discovered that they were affected with fever.

It was remarked to me in the month of July, by Dr. Egan, that he never had seen so many instances of petechial fevers as during the summer of 1817; and my experience in the Hardwicke Hospital concurred with his. In the latter end of the summer, there were petechiæ in almost every case which extended beyond the first week. Although, at one time, the petechiæ seemed to have some connexion with the heat of the patient's body, we eventually discovered that this in fact was not so, nor had they

any relation to the temperature of the surrounding medium: they were no part of a heating regimen, for petechiæ were abundant in persons who had slept in outhouses, or in the fields, for several nights before they were taken into the hospital. Indeed however favorable, among the poor, opinion might be to the heating regimen in fever, a great many of the patients were so reduced in their circumstances, that literally they had not a blanket to cover them. In such persons petechiæ were often abundant. Petechiæ in the advanced stage of fever, which are a formidable symptom, secondary petechiæ, as they have been termed, sometimes appeared while the patients lay under only one blanket, and while every sash in the ward was let down. There was an eruption of this kind in Hanlon (No. 539), and by the way the thermometer rose only to 95° in Hanlon's month, and axilla two days before his death, and when he was covered with petechiæ. The dun diffused petechiæ were in general a part of a severe disease; when the sensorium was much affected, they were seldom absent. The temperature of the body was in general high; in the months of March, April, May, June, July and August, the temperature was ascertained in 250 cases on the day of admission, and the following was the result:

97°	98°	99°	100°	101°	102°	103°	104°	105°	106°	107°	108°	109°
1	12	11	59	14	37	19	57	24	12	3	0	1

The following Tables will show the state of the respiration and the pulse during the same period:

Frequency of the Respiration in 171 cases.

20	22	24	26	28	30	32	34	36	38	40	44	48	52	56	60
2	4	27	10	27	14	40	7	12	6	12	6	1	1	1	1

Frequency of the pulse in 237 cases.

52	56	60	64	68	70	72	74	76	78	80	82	84
1	1	1	2	2	4	7	3	5	1	19	1	5

86	88	90	92	94	96	100	102	104	106	108	110	112
1	11	2	5	4	11	20	2	17	3	15	4	13

114	116	120	124	128	130	132	136	138	140	144	158	180
1	9	31	5	8	5	7	3	1	2	2	1	2

The following table is the result of an examination of all the cases in which the thermometer rose above 104°. In most of these cases, after the height of the fever, the temperature was gradually reduced, the thermometer falling from 105° or 106 to 100, and then crisis taking place further reduced the thermometer to 98.

List of Patients admitted from the 3d of March to the 3d of September in whom the temperature exceeded 104 degrees.

Date of Admission.	No. of days sick.	Name.	P.	R.	T.	Petechiæ.	Predominant Symptom.	Day of crisis.	Probable Cause.	Blood-letting.	Termination.	Remarks.
Mar. 10	8	Margt. Matthews	120	36	105	Dun Petechiæ	Severe Cough		Cold.	V. S. 3ce.	Recovery	
14	5	Richard Molloy	140	[illegible]	105	Florid Petechiæ	Severe Cough and headach				Do.	
[illegible]	4	Jos. Bell	120	[illegible]	105		Nausea, vomiting, and headach	11th day, by diarrhœa			Do.	
27	5	Anne Byrne	120	36	106	Florid	Oppression at chest & headach	About 15th day, by sleep	Contag.	V.S. Leeches	Do.	Sisters
28	10	Mary Byrne	120	24	106	Florid	Cough and headach	About 20th day, by sleep	Contag.		Do.	Sisters
28	9	Bridget Byrne	136	36	106	Measly Efflores.	Suffusion of eyes, deafness	About 16th day, by sleep	Contag.	Arteriotomy	Do.	Sisters
April 4	5	Peter Russell	108	24	106	Dun Petechiæ	Cough and headach	11th day, by stools		V.S. Leeches	Do.	
14	5	James Daly	[illegible]	[illegible]	[illegible]	Florid Petechiæ	Severe headach		Contag.		Do.	From one house
14	8	Eleanor Daly	[illegible]	[illegible]	[illegible]	Florid	Headach and delirium	By stool and sleep	Contag.		Do.	From one house
[illegible]	7	Mary Murphy	[illegible]	[illegible]	105	Florid	Dry Cough		Fatigue	V. S. 2ce.	Do.	
May 16	6	James Gough	104	32	105		Headach and delirium		Contag.		Death	
June 21	5	Js. Fitzpatrick	120	36	105	Florid	Epg. pain, cough, & flushed eyes	14th day, stools and sleep	Contag.		Recovery	
21		Esther Morris			105	Petechiæ	Severe headach	Stools and sleep		V. S. 3ce.	Do.	
30	13	Esther McKenna	120	30	105		Cough and severe headach	17th day, sweat		V. S.	Do.	
July 3	8	John Gibney	120	28	107	Dun Petechiæ	Epig. tend. cough & headach	11th day, stools			Do.	
[illegible]	11	Mary Woods	104		105	Petechiæ	Severe headach, flushed eyes	18th day, sweat	Contag.	V. S.	Do.	
12	6	Daniel Quin	[illegible]	24	105		Violent headach	7th day, sweat	Cold	Arteriotomy	Do.	
15	9	John Thomson	132	32	105		Epigastric tenderness		Contag.		Do.	
22	[illegible]	Pat. Dogherty			105		Epigastric tenderness			V. S.	Do.	
31	5	Mary Jorden	112		105		Severe headach	12th day			Do.	
Aug. 4	5	Christ. Collins	112		105		Epigastric tenderness	12th day, perspiration	—	V. S.	Do.	
4	5	And. Delany	108		105		Severe cough and headach			V. S. 3ce.	Do.	Reinfected
6	7	Peter Roe	120		105		Severe cough and headach	8th day, perspiration		V. S.	Do.	
6	6	John Brazill	120		105		Sickness and diarrhœa	9th day, perspiration	Contag.		Do.	Reinfected
7	10	Thomas Connell	140		105	Florid	Epig. tenderness and headach	7th day, perspiration			Do.	
10	6	Matt. Brazill	108	28	106		Epig. tend. & headach	10th day, perspiration	Contag.		Do.	Reinfected
11	5	Mary Spencer	108		104	Florid	Do. do. and cough	7th day, sweat			Do.	
11	9	Mary Armstrong	[illegible]		105		Do. do.	17th day			Do.	
19	12	Pat. Quin	100	30	107		Do. do.		Contag.	V. S. Leeches	Do.	
21	12	And. Higgins	108	30	107		Oppressed chest, cough, debility				Do.	
21	10	Mary Walsh	120		105	Florid	Epig. tend. cough, & headach	14th day, perspiration		V. S. Leeches	Do.	
23	4	Anne Tiernan			105	Florid	Epig. tend. severe headach	6th day, perspiration		V. S.	Do.	Great Flushing
23	5	Jud. O'Donell			105		Epig. tender, headach, cough	8th day, perspiration		V. S.	Do.	
25	6	Thos. Fleming			105	Florid	Epig. tenderness, delirium	11th day, stools	Contag.		Do.	
27	11	Mary Tyrell			105	Violet and florid	Epig. tenderness, cough	17th day perspiration	—	V. S.	Do.	
Sept. 1	7	Michael Read	104	28	105						Do.	
1	7	Francis Reilly			105		Headach and debility	9th day, perspiration	Contag.	V. S.	Do.	
2	14	Mary Clarke	104	36	105		Cough and headach	14th day, perspiration	Contag.		Do.	
2	5	Mary Carroll			105		Epig. tenderness and cough			V. S. 2ce.	Do.	
3	8	John McNulty	112	36	105	Florid	Epig. tend. cough, stitch, h.ach				Do.	

It appears from this table, first, That there were as many instances of excess of temperature during the month of August and first week of September, while epigastric tenderness predominated, as during the months of March, April, May, June and July, while the affection of the lungs was the predominant symptom of the early period of fever. Secondly, That when excess of temperature took place, the circulation was generally, but not always, proportionately quickened: thus in thirty-two cases of the foregoing forty, in which the pulse was counted, there were nine patients in whom it did not exceed 104, which was about the average frequency of the pulse on the day of admission during the summer. Thirdly, That respiration was even less affected during the existence of excess of temperature than the circulation: in twenty-two cases of forty, the frequency of the breathing was ascertained; and in thirteen of these cases it did not exceed 30 in the minute, the average frequency of respiration being about 30. Fourthly, That in forty patients, in whom the temperature exceeded 104, there was only one death. In order to give this remark its proper value, it ought to be observed, that, between the third of March and the third of September, thirteen persons died of the fever in wards 1 and 4, out of two hundred and fifty, in whom the temperature was ascertained on the day of admission, and from the following statement it will appear that in a majority of these fatal cases the temperature did not exceed 100°.

0	at 97°	being 0 in	1	7 deaths in 83 patients, or 1 in 12 nearly.
3	98°	3	12	
1	99°	1	11	
3	100°	3	59	
0	101°	0	14	5 in 127, or 1 in 25.
1	102°	1	37	
2	103°	2	19	
2	104°	2	57	
0	105°	0	24	1 in 40.
1	106°	1	12	
0	107°	0	3	
0	109°	0	1	

Although a considerable number of the patients in whom the temperature exceeded 104° were from houses which we supposed infected, yet 105°, 106°, or 107° frequently formed a symptom of a disease which was not alarming. Indeed, from the foregoing table, it would appear that excess of temperature was rather a favourable symptom. It was not uncommon to find the thermometer gradually rising from 98° or 99° to 102° or 103° or even higher, while the severity of the disease was abating, and on the other hand we frequently observed the temperature declining while the patient was getting worse; thus the patient was often in great danger when the temperature of the body did not exceed 98°. In some instances, for a day or two before death, the mercury did not rise above 96° or 95°. Indeed, in severe cases, after the temperature fell to par, or below it, and that without any critical effort, we considered its rising again as a favourable change.

Venesection sometimes lowered the temperature; frequently it produced no change, and in several instances the thermometer rose two or three degrees after blood-letting, even when that measure greatly relieved the patient. It is clear that venesection was not contraindicated by excess of temperature alone, since, in nineteen patients of a temperature which raised the thermometer above 104°, in whom blood-letting was practised, there was no instance of death.

In examining the disordered state of the vital functions during the summer of 1817, with a view to the prognostics of continued fever, we derived more information from the state of the breathing than from the pulse, and more from the pulse than from the temperature of the body.

Among such patients as were admitted early, and were treated upon a strictly antiphlogistic plan, there were many instances of crisis on the third or fourth day, the disease appearing as a febricula, or perhaps rather as an extended ephemera; and these specimens of mild fever occurred even among those who came from houses which afforded us instances of the disease in its worst form: the disease, however, was fatal, in a large proportion, among such as came from houses which we supposed were infected, and in these persons relapses were very frequent. On the other hand, in many who denied having had any communication with patients in fever, the disease was attended with severe symptoms, and ran the usual course. In a word, the fevers which we supposed arose from

contagion, and those which seemed to originate in intemperance, cold, fatigue, &c. in which we could discover no trace of contagion, were so shaded into each other, that it was impossible, by their symptoms, to demonstrate any difference between them.

We had many opportunities of observing that copious perspiration, in the early period of the fever, when artificially produced by warm or cordial drinks, accumulation of bed-clothes, &c. was insufficient to reduce the temperature; the disease continued with aggravated symptoms, and apparently in consequence of this mode of treatment. In the month of August, perspiration, in the advanced period of the disease, even when not produced by any sudorific, did not always remove the disease until it had recurred several times; and I have more than once seen the thermometer, in the axilla and mouth of a patient who was bathed in sweat, raised to 104 or 105. During the winter, in some cases which proved fatal, the patients perspired freely for several days before death, but the perspiration did not reduce the pulse, nor did the functions of the brain improve under it. In one of these fatal cases there was a very copious sediment in the urine on the day before the patient died.

In April and the beginning of May, the fever generally terminated in a lax state of the bowels and sleep, and then perspiration preceded by rigor, frequently resolved the fever. Margaret Kearney, admitted on the 6th day of May, was the first patient who obtained crisis by rigor and perspiration, which

took place on the 12th of that month, and there were twenty instances of crisis by sweat following a rigor, among fifty-nine patients admitted, in the month of May, after Kearney; yet I have good reason to think that this form of crisis had not taken place once in several hundred patients admitted into the Hospital before Kearney. The most perfect crisis, during the summer months, consisted of three stages: First, a state of restlessness and anxiety, with flushing of the face, rapid pulse, frequent laborious breathing, and increased heat of the surface, with great distress at the pit of the stomach from heat, tenderness or pain; which distress was not unfrequently relieved by vomiting. The patients were in a state of universal uneasiness, which would have been truly alarming had we not known its tendency; but this state is well understood, even by the servants of a Fever Hospital, who soon come to know, by these symptoms, that the patient is near "the cool." This state sometimes lasted for the greater part of a day, during which time one of our experienced nurses, who was fond of figurative language, would generally remark that "the cool was hovering round" the patient. Secondly, a rigor or tremor, not unlike the cold fit of an ague: the patient shivered and complained of excessive cold. I never, save in two instances, was able to measure the temperature during the rigor of crisis, and in both patients the thermometer stood at 105 degrees, even while the patient was shivering and complaining of excessive cold, and anxious for an additional blanket. In one of these patients, the thermometer in the evening stood at 100, although the rigor was not

followed by sensible perspiration. Next morning the thermometer stood at 97; the tongue was clean, the pulse 88, and the patient convalescent. The rigor of crisis seldom lasts long; perhaps only a few minutes, perhaps half an hour or an hour. Thirdly, warm perspiration flowing from the whole surface of the body; this, which in general completed the salutary effort, the nurses, in the Hardwicke Hospital, call "the cool" being aware of its efficacy in reducing the heat of the body.

I may perhaps be thought tedious, but I must trespass on the reader's patience while I enumerate some other modes of crisis which took place. This is so important a part of the subject, that the history of the epidemic under review would be incomplete without it. In some patients the fever seemed to end in mucous diarrhœa; in others free expectoration took place, with relief; in one or two individuals salivation occurred as the disease was ending favourably: these patients, it is true, had taken the calomel bolus, but their gums were not tumid as in mercurial salivation. Rigor was sometimes critical, even when not followed by sweat. In some instances perspiration, with or without rigor, continuing for a short time, took place; other patients perspired for two or three days, with little or no interruption; in either case perfect crisis was generally the consequence. But the effort at crisis by perspiration was not always effectual till it was repeated several times on successive days, or successive critical days. In the middle of August this was especially observable; several persons perspired freely without relief, and without abatement of febrile heat. In a patient in No. 4, the temperature was 105°, while she was in a general and profuse sweat. Epistaxis, in one or two instances, mitigated the severity of the disease; but I do not recollect any instance in which it afforded complete relief. While on the subject of imperfect crisis, I have to observe, that an individual (M. Farrell) was, on the 9th day of his fever, in a state of great debility, with involuntary stools, great dejection of spirits, shedding of tears, despairing of recovery; in the course of the night there took place an eruption of florid papulæ, interspersed with vermillion stigmata; next day (the 10th day of fever) he was relieved; he slept much, and in the evening of the 11th he had a rigor followed by perspiration, which proved critical. One patient had a rigor on the 14th day, not followed by perspiration nor complete relief; but, on the 17th day, complete relief took place without rigor or perspiration: on that day, however, the urine was turbid, and threw down a furfuraceous sediment. Rigor and perspiration sometimes took place on one critical day, and tormina and mucous bloody stools on the next. In Mary Gibney, continued sleep took place on the 21st day, perspiration on the 24th, and suppuration of the ear, followed by perfect relief on the 27th. Finally, in many cases, I could not discover any critical effort, the disease gradually terminated, as some of the older authors have remarked, by "insensible resolution."

Relapses did not take place in more than one case

in thirty, unless we consider as of the nature relapses, inflammations of the lungs, or of the mucous membrane of the intestines, both of which sometimes occurred after crisis.

The fever sometimes attacked an individual in whom organic disease had previously existed, in which case considerable irregularity was observable. In two patients who had laboured under disease of the heart, the fever was attended with dyspnœa, distressing cough, pains in the region of the heart, great general debility. In one of these patients the pulse was so irregular and unequal that it could not be counted; while in the other, the pulsation of the heart was strong, might be felt in any part of the left side of the chest, and might be seen in the epigastrium, and the cough was attended with bloody expectoration. When the disease occurred in those who had previously laboured under pulmonic complaints, the flushing of the countenance was circumscribed, the voice was sepulchral, the fever seemed a hectic without perspirations or remissions. When it attacked a person who had laboured under dysentery, mucous or bloody stools appeared during its progress, along with rapid emaciation and a pale rakish look. In one patient, in whose body we discovered a liver beset with brown tubercles, the fever at an early period became icteroid; and here I would observe, that many instances of fever, which physicians of the school of Pinel would call atactic, have appeared to me to depend on some peculiarity in the constitution of the patient. I am persuaded that the

chief irregularities which we observed, during the present epidemic, were owing to the diathesis of the individuals in whom they occurred. In some women there were striking symptoms of hysteria; in one or two atrabilious persons the disease set in like an attack of melancholia. In the sanguine it wore the semblance of Pneumonia or Phrenitis, and in dram-drinkers that of Delirium tremens. The disease was essentially the same species of fever which was prevalent at the period that these anomalies were remarked, and required only time for its full developement. I shall illustrate the foregoing remarks by relating some cases of the fever attended in the beginning with anomalous symptoms.

I. In the months of April and May, in two females, hysterical symptoms, for a time, masked the true nature of the fever. One of these patients, a servant in a respectable family, was visited by an eminent physician, who at first thought she laboured under hysteria. On the 5th day of her illness he was requested to visit her a second time, to sanction her removal to a public lunatic asylum, but the disease had developed itself, and he ordered a purgative for her, and desired that she should be sent in the morning to the Hardwicke Fever Hospital. She was brought into my ward on the 25th of April. During the preceding night, she had passed many loose stools involuntarily. She was no longer capable of explaining her situation. Her eyes were suffused, their motions being languid, and she was covered with florid petechiæ. Temp. 104, P. 144, Resp. 36.

(head shaved and sponged, temporal artery opened, legs fomented.)—On the 26th her respiration was wheezing and laborious by paroxysms; no stool—(calomel bolus, blisters to the legs.)—On the 27th, less suffusion of the eyes, extreme debility (wine, carbonate of ammonia.) She died on the 28th, being the 9th day of her illness.

The 2d patient I first saw in her own lodging on the 2d of May. She was then in a maniacal paroxysm, babbling with great rapidity of utterance:—her expression was that of suspicion and alarm,—her pulse was very rapid, and her skin moist. I was told that, along with febrile symptoms of two or three days duration, she had complained, on the 31st of March, of some uneasiness in her throat, which I was inclined to think was hysterical rather than inflammatory; for this she was let blood. Next day her skin was covered with petechiæ, and she laboured under what appeared to be hysteria, with considerable aberration of mind. I could not have admitted this woman into my wards, without subjecting the other patients to serious disturbance, so violent was her delirium. Her legs were fomented, and a draught, consisting of camphor mixture, and camphorated tincture of opium was administered, after which she went to sleep, and awoke calm and coherent, and next day I ordered her to be removed into one of my wards. On the 4th and 5th she lay in a state of stupor;—supine; her pulse upwards of 120—her countenance flushed, passing stools under her in the bed. On the 6th, 7th and 8th, she was delirious in the morning—wandering about the ward; and in a state of sopor in the evening. On the 11th day of her sickness she fell into natural sleep, and from that period her illness gradually abated, her belly being loose. The medicines she used were moderate opiates with camphor, blisters, fomentations to the feet, and cold applications to the head, and mild purgatives. During her illness two of her children were admitted into my wards with petechial fevers.

II. A patient, of a strongly marked melancholic temperament who was admitted on the 5th of May, had attempted to cut his throat during the horrors of a fit of insanity, with which he was affected in the early part of his fever. On his admission he was inaccessible to every intreaty which was used to induce him to show us his tongue, or to take medicines; he lay in a state of sullen indifference for two or three days, with flushed and dusky complexion, from which state he gradually recovered about the end of the 2d week of his illness, without any evident critical effort but a loose belly with sleep. Arteriotomy was twice practised, and leeches were applied—Calomel in pretty large doses was given, followed by turpentine glysters. About the 16th day of his illness, wine was ordered. He recovered his strength very slowly.

III. On the 24th of February William Brennan, æt. 25, was admitted into the hospital in petechial fever, with cough and expectoration of mucus tinged with blood.—Crisis on the 14th day. On the 2d of April, And. Tallan, æt. 25, was admitted on the 6th

day of petechial fever, with oppression of the chest, dry cough and delirium.—Crisis at the end of the 3d week. On the 24th April, Robert Short, æt. 22, was admitted on the 6th day of fever. These were three of four young men, draymen, who slept in the same room; the fourth was conveyed in fever to another hospital in the month of March, and his comrades related of him, that during the fever, he was seized with a fit, which ended in apparent death, and removal to the dead room of the hospital, in the early part of the night, and that the porter who conveyed him thither, in going his rounds in the morning, was dismayed not a little at finding the supposed corpse seated on his breech in a corner, wildly staring him in the face as he entered the apartment. Short was a man of a sanguine temperament and gigantic height and strength, who, when he was admitted into the hospital, was in great agony with a stitch under the left nipple. He had an anxious, flushed, swoln countenance, with general soreness of the muscles of the chest from incessant coughing. (Temperature 104°.) Before his admission, probably by means of warm cordial drinks, he had three or four times forced himself to perspire. Although I have long been accustomed to witness all kinds of misery, yet I could not help being moved with the agony of this young man's look when I was leaving his bedside, and his impatience of suffering, as he rose up in bed to demand if nothing were to be done for the immediate relief of his chest. As his tongue was coated with yellowish mucus, a calomel bolus was prescribed, and a purgative mixture, and he was let blood without delay. The crassamentum was covered with a thick layer of size. In the course of the night he became delirious, wandered about the ward, and sought to make his escape. Next morning I found him sitting up, gay and jocose—incoherent—but making many humorous remarks with a comic expression of countenance. I ventured, however, to make an unfavourable prognostic to one of my colleagues, as I was requesting his assistance. For, although the patient did not cough nor complain of his side, his respiration, from being only 24, had increased to 40 in the minute; his pulse was 140, and there was a greasy moisture of his skin, and some tremor of his hands; and I could not be ignorant of the danger which, in febrile diseases, belongs to sudden cessation of distress in the lungs, while at the same time disease takes possession of the brain. We ordered the temporal artery to be opened, and directed medicine for him, but in vain; no sooner did he taste any thing medicinal than he spurted it from his mouth, and he would not submit to be bled. About eight o'clock the apothecary gave him 25 drops of laudanum in a little milk, which was the last and only thing he would swallow. He became so troublesome by his continued efforts to leave the hospital, that I was obliged, when I saw him in the evening, to have beadles from the House of Industry to restrain him. About midnight he was seized with convulsions, and shortly after he died. On DISSECTION the vessels of the scalp bled very freely. The pia mater, considerably inflamed, was, in many parts, of a bright red colour; the inflammation was most extensive on

the inferior surface of the brain. The texture of the brain was remarkably firm, and on being divided, it was plain that vessels contained blood which do not usually contain it. There was no fluid in the ventricles. The entire pleura of the left side was coated with a thick covering of coagulable lymph. The vascularity of the lung was much increased, its concave surface was closely adherent to the left side of the pericardium by a thick layer of coagulable lymph; the inflammation had extended to the serous layer of the pericardium, which was of a pale rose colour. There was no fluid in the pericardium. A very large quantity of reddish sero-purulent fluid was contained in the left side of the thorax. The liver, &c. was sound.

I shall conclude the descriptive part of the subject by adverting to two cases which are well deserving of attention, illustrative of accidents which are apt to occur in a Fever Hospital; and which when the fever is petechial and typhoid, the physician ought to guard against with unceasing care. The first of these cases impeaches my own vigilance, but it is not, on that account, to be kept back. The second has been a very rare occurrence in our hospital. Several years before I was appointed a physician to the House of Industry, while remarking to Mr. Todd, one of the surgeons to that Institution, a state of discipline in the Hardwicke Hospital, highly creditable to the physicians my predecessors, I learned that gangrenous backs and legs scarce ever were known in that building. This exemption Mr. Todd ascribed to the

large wards, excellent ventilation of the hospital, and unceasing attention which was paid to the sick.

I. On the 8th of June a patient was admitted from another hospital, in which he had lain for two months, under surgical treatment, for concussion of the brain. His mind was in a state of the utmost confusion, he had lost all distinct perception of the relations of things; and it was to be feared that he would become idiotic, for he was getting daily worse, when symptoms of general fever took place. On the 10th day of his fever he became a patient of mine. He was incoherent, his tongue was covered with a thick layer of white mucus, the edges being of a flesh red; he was flushed, and there was a marbling on his skin like fading petechiæ; he had a loose cough, and though his pulse was quick, the temperature of his body was not high. Leeches and cold applications to the head, fomentations to the legs, and a blister to the nucha, were applied, and mild mercurials with ipecacuanha were given. On the 14th of June he was quite unmanageable, from the disturbed state of his mind, and he was much flushed. About this time he passed his urine and stools in bed. In this condition he continued until the 20th, becoming weaker daily. He had become refractory, had refused to allow the temporal artery to be opened, or to take medicine; and I must admit that sufficient attention was not paid to his case, which appeared to be nearly hopeless. On the evening of the 20th, some inflammation was discovered by the nurse in the right side of the belly.

Next day I discovered a considerable extent of inflammation in the right iliac region, which crepitating under the fingers, resembled a large anthrax; a point of inflammation was also observable in the upper part of the left groin; this led to an examination of the scrotum, the lower part of which was in a state of slough to the extent of half-a-crown. These appearances but too plainly belonged to an extensive urinary abcess, which had arisen probably from an overdistended bladder. The further progress of this case need not be detailed. The patient died on the 27th of June, in a miserable way; for no sooner was a dressing applied than he tore it off. Indeed he was consistent in no part of his conduct but in his efforts to baffle every endeavour which was made to save his life.

For an occurrence such as this, the physician and not the nurse is accountable. It is a rule, not to be dispensed with, when involuntary discharges of urine take place in the advanced stages of fevers, frequently to examine over the pubes, so that the catheter may be introduced when any fullness is detected in the hypogastric region. Had this rule been adhered to in the present instance, the termination of the case would have been different. In a patient who, on the 4th of August, was reported by the nurse to have voided her urine freely, only a short time before the visit, I judged it necessary, from observing urine distilling from the mattress, to examine the hypogastric region, and finding fullness and tension over the pubes, I ordered the catheter to be introduced, by

means of which at least three pints of high coloured urine were discharged, to the immediate relief of the patient. This patient required the occasional introduction of the catheter for two or three days.

II. Anne Kelly, admitted on the 13th of May. This girl had been sitting up in an hospital every night for several weeks, watching her father, whose leg had been amputated. During the day she had made great exertions to sustain two infant children who had been left to her care. Exhausted and depressed, she fell a victim to fever, the principal symptoms of which were foul taste, sickness at stomach, oppression of the breathing, and coldness of the extremities. On the 16th day of her illness she was affected with great pain of the right knee, leg, and foot; on the 17th day she was received into the hospital; the pain was severe, and was much aggravated by the slightest touch; the limb, from the knee downward, felt cold and benumbed. It was mottled from numerous minute dots of a dark blue colour, and patches of a livid blue; the middle of the leg was redder than the rest, the foot cold and very pale, like that of a cadaver. Several hard tumors were distinguishable on the calf and middle of the leg, which were very painful; the pulse was quick, but the tongue was moist and clean. In a day or two the foot became of an uniform purple colour, then of a deep fiery red, with vesications all over. She was removed on the 22d to the Richmond Surgical Hospital, in which her leg was amputated by Mr. Carmichael, after which her recovery was rapid.

In this young woman's case the inflammation of the extremity, which ended in dry gangrene, seemed to carry off the fever. When she entered the hospital neither her tongue nor her expression indicated the existence of idiopathic fever.

With regard to the morbid appearances discovered in our dissections, during the first five or six months included in this report, a very few observations will suffice. That the abdominal viscera should apparently prove sound, in most instances, excited no surprise, as, until the middle of August, there were no symptoms which indicated acute disease in that part of the system, but we expected, from the prevalence of pulmonic irritation, to find the lungs inflamed, which was by no means the case. It is not improbable, if the patients who died had perished in an earlier stage of the fever, that these appearances would not have been wanting. Our expectations were never disappointed as to the state of the brain, unless that the diseased appearances in that organ were not always proportionate to the severity of the symptoms which denoted cerebral disturbance. The vessels of the head were turgid; there was increased vascularity in the brain, especially on its surface. A slight extravasation of blood from the vessels of the pia mater was observable in many instances; in others, there was serous effusion on the surface of the brain, into the ventricles, and into the theca vertebrarum, but not to a great extent. In a few cases the remains of disease were inconsiderable; thus, in a dissection which was made of a patient of Dr.

Clarke's, who had been affected with universal agitation, extreme torpor of the bowels, petechiæ, obstinate averseness to medicine, subsultus, and rigor before death, although there was considerable flow of blood from the vessels of the scalp, and turgesence of the sinuses; the only striking appearance of disease, within the cranium, was a general blush over the pia mater at the base of the brain, as if the minute arteries had been in an excited state. In this case, however, there was, what rarely appeared during the summer, a diseased condition of the mucous membrane of the stomach.

I shall explain the treatment of this species of fever very shortly, there being much less novelty in it than in the fever of the preceding winter. Although many respectable physicians considered the disease typhus, I believe it was only the common continued fever, which generally prevails, more or less, during the summer, in many of the great towns in these countries: it was sometimes in an aggravated form, but generally it was mild. With the exception of the atactic cases, which were not numerous, the indications were obvious, and the remedies such as are in general use.

During the first ten or twelve days, the treatment was strictly antiphlogistic. In the cases which terminated before the end of the second week, it was generally antiphlogistic throughout; first the bowels were thoroughly purged, and then, in all the milder

cases, the disease was left to cold water or whey, cool air, and sponging the head and neck and chest with vinegar and water, together with a purgative when there was not more than one stool in the day. In the more protracted cases, the cordial plan of treatment gradually took place of the antiphlogistic; provided there was no inflammatory determination, from four to eight ounces of port wine were allowed daily; from the latter quantity, every advantage which seemed attainable from wine, was procured. About the 11th or 12th day, provided the cough was subdued, or had become moist, and there was no headach or great flushing, and no tension or tenderness of the epigastrium, I generally ordered wine on the patient's complaining of weakness, or on debility being evidenced in the position of the patient, languor of the circulation, or on the appearance of symptoms which indicate irregularity in the supply of the nervous power, as muttering, low delirium, tremors, subsultus, floccitation, &c., or on the tongue becoming shrivelled, dry, and black. Along with wine the calomel bolus was given, generally every second day.

There was another condition of the disease, in which a moderate quantity of wine was allowed. When between the second and third week of the fever the patient's appearance was nearly natural, save that his complexion was high, his tongue nearly clean, only perhaps too florid, and when with these symptoms the heat of the surface was great, and the complaint of weakness considerable; in such a state, wine was often very useful, to which were added saline

diaphoretics, an occasional purgative, and fomentations to the lower extremities.

In the advanced period of the fever, when there was no local pain, or fullnes of the hypochondria, and more especially when the tongue was moist, even when it was not clean, there were some cases, in which opium, combined with mild purgatives,* appeared to me of more use than even wine; such a combination was very useful in the cases which were attended with the less vehement kind of delirium, with pale sunken features, with tremors and subsultus, and with atactic symptoms; and here I may remark, that in the upper ranks of life, in the advanced period of fevers, attended with vigilance, but without great reaction, when the delirium is not phrenitic, but rather of a low and desponding cast, when the pulse is unsteady, while at the same time the hypochondria are not tumid, a draught containing twenty or twenty-five drops of laudanum taken at bedtime, will sometimes produce a favourable change in the whole character of the disease.

In offering a few observations on blood-letting, it is necessary that I should begin by correcting an error into which I have fallen in my first report. I have there said, that in two or three cases in which venesection was performed during the exacerbatio critica, the

* ℞. Misturæ sennæ cum camphora ℥vi Tincturæ opii camphoratæ ℥iii m. sig. sumat ℥i 3tis vel 4tis horis.

salutary effort of the constitution was interrupted, and the fever went on for several days longer: the term exacerbatio critica ought, in strict propriety, to be confined to the struggle, which is apparent before the rigor or sweat takes place, in which case venesection is not always injurious, for in several instances, mistaking the purport of the symptoms which constituted the exacerbatio critica, I ordered the patient to be let blood, and perspiration and perfect crisis followed the operation: had I been fully aware of the nature of the struggle in these cases, I would have left the disease to its course; nevertheless it is certain, that blood-letting in the first period of crisis was not in any instance injurious: the bleeding, alluded to in my first report, which interrupted the salutary effort of the constitution, was performed in the second or third period. The effect of blood-letting in the first stage of crisis may be considered as analogous to that produced by blood-letting in the hot stage of remittent fever, a practice which was common fifty or sixty years ago, to procure a more speedy and complete remission.

In April, May, June, July and August, of about three hundred patients admitted into No. 1 and No. 4, one hundred and forty nine were let blood, some of these three or four times. Of these, immediate relief after blood-letting was experienced by 94, but I am convinced that a much greater number were in an improved state on the day after they were bled; yet the blood drawn was not sizy in one case of twenty, if we except the relapses, and those cases

in which blood was drawn to relieve the inflammatory affections which were apt to occur during convalescence.

Symptoms which induced me to order venesection in 1816, directed me to that remedy in 1817: a marked increase of vascular activity in any of the viscera always led me to order blood-letting, such as severe headach, in which case the temporal artery was in general opened; pain in the chest, dry cough, and expectoration of bloody mucus, epigastric tension and tenderness; the last symptom, however, was rare, until towards the latter end of August, when it began to predominate. Bleeding did not appear to me injurious in any one instance in which it was performed in my wards. Blood-letting was several times employed as a part of the euthanasia, when perhaps it shortened the patient's life by a few hours, but even of this I am by no means certain. Of the ninety four patients, above mentioned, who were let blood with advantage, sixty nine had symptoms of pulmonic irritation, and almost every one of these had headach also; fifteen were without pulmonic disturbance, but had severe headach with flushed eyes, and, most of them, a tendency to delirium; and three had either epigastric tenderness or tormina and tenesmus. Nearly three fourths of the patients admitted had pneumonic symptoms. Headach was nearly universal. The pneumonic symptoms, however, bore a less proportion to the cephalitic as the season advanced; of the last eighteen patients admitted in June, nine were without pulmonic distress.

In some individuals the pulmonic affection was so obstinate as to require the lancet three or four times before the pain, with oppression of breathing, was subdued, or the expectoration was restored. For cough alone I did not order blood-letting, unless it was very harassing and dry, or attended with frequent breathing and bloody mucus: when there was a stitch and impeded respiration, I always used the lancet. In delirium I did not order blood-letting, unless it was attended with headach or great flushing. Upon a careful review of the cases, I find blood-letting ordered in only one or two instances, for flushing and great heat of surface, unconnected with headach, irritation of the lungs, or, in short, organic determination.

Although a preference was due to arteriotomy, yet the application of eight or nine leeches to the temple, in the early part of the fever, often succeeded completely in relieving the headach: nay, in some instances it appeared to carry off the fever in the course of the ensuing twenty-four hours. I wish to record this observation, as it has been asserted by a person in this city, of skill and experience, that leeches applied to the temple were of no use. I can affirm, moreover, that several patients have assured me that leeches applied to one of the temples relieved the side of the head to which they were applied, while the other continued to ache.

I shall not presume to say, that a greater mortality would have taken place, had I been less partial to the

lancet. The disease was in general so mild, that the mortality would have been inconsiderable under any method of treatment; but I am persuaded that blood-letting was a means of materially abating the sufferings of the sick, by removing pain, sickness and anxiety, and by abridging the period of the fever. The use of the lancet also protected many of the patients from the usual sequelæ of fever. The number of instances in which crisis took place on the evening of the day on which venesection was performed, during the months of April, May, June, July and August, was very considerable. Several women were admitted in an advanced period of pregnancy, the sixth or seventh month, with fever in a very severe form. In these women the lancet was used when it appeared to be wanted, and mild purgatives were given daily and they did not abort, although there was every reason to dread that event in two of them in particular.

Blisters were used both in the earlier and later periods of fever. First, following arteriotomy, a blister to the nucha was found to lessen the distressing headach which so often occurred in the first week; after venesection, a blister to some of the regions of the thorax was in general ordered to assist in abating pulmonic inflammation or congestion; and after the application of leeches to the epigastrium, a blister was applied when the tension or tenderness of that part was not removed. Secondly, blisters were applied between the shoulders, to the sternum, and to the legs, in aid of cordials, to rouse the patient from the

torpor of the more advanced period of the fever, and relieve the internal organs by a powerful counter-irritation. In desperate cases of coma, the whole scalp was covered with a blister, and sometimes with apparent benefit.

A fever, such as I have attempted to describe in the foregoing pages was, during the summer of 1817, gradually establishing itself all over Ireland, and ultimately it spread among the poor in the capital. This fever appeared to be unconnected with any peculiar condition of the atmosphere, the summer having been wet and cold, and wet and cold summers, as I have observed, on a former occasion, being counted healthy ones in Dublin.* The following is an abstract of the weather from April to September, which I owe to my friend, Mr. C. Moore.

	Prevailing wind.	Temperature. Highest.	Lowest.	Medium	Days of rain.	Quantity of rain in inches.	Description of Weather.
April to 9th May	N. E.	65	37	51	6	$\frac{1}{16}$	Dry & clear.
10th May to 20th June	S.	66	41	54	33	$3\frac{1}{4}$	Frequent rain.
10 last days of June	Var.	74	58	65	4	$\frac{1}{2}$	Very hot.
July and August	S. W.	74	51	61	59	$7\frac{1}{2}$	Very wet.

* See Dublin Hospital Reports, vol. I, p. 14. See also Dr. Edward Percival's masterly account of the *Epidemic Fevers* of *Dublin*. In that paper Dr. Percival says, "it has long been remarked, that protracted dry weather is peculiarly productive of fever in Dublin, and that rainy weather, which is the prevalent character of the climate, agrees best with the general health of its inhabitants." Vide Transactions of the Association of the King and Queen's College of Physicians, p. 261. vol. I.

The progress of the epidemic in Dublin will appear from the following slight sketch of our proceedings at the House of Industry.

On the 31st of May, and the four succeeding days, we had an average of nine admissions daily, into the Hardwicke Hospital, which was more than double the average of admissions of the five or six months preceding; after the first week in June, the admissions did not exceed four per diem, or in other words, not more than four applied for admission, for of late it has been a rule of the institution, sanctioned by Government, that no patient in fever shall be refused admission.

On the 1st of September fifteen patients applied for admission, a circumstance which, as accounts had been received from all parts of Ireland of the prevalence of fever, the Governors of the House of Industry thought it their duty to report without delay to the Lord Lieutenant. This precaution was not an unnecessary one, for, in in the course of a week, one hundred patients were admitted, the usual weekly average being twenty-seven.

On the 3d of September, apprehensions being entertained of the extension of fever, the Governors of the House of Industry were ordered by the Lord Lieutenant to apply the Whitworth Hospital, originally designed for chronic diseases, to the accommodation of patients labouring under fever; and on the

9th of September, they received instructions from the Chief Secretary of State to extend their inquiries into all those parts of the city wherein fever had appeared, or wherein, from the neglect of cleanliness, and the density of the population, its appearance might be apprehended; and they were at the same time instructed to order the whitewashing of the rooms of the infected, and the removal of filth from the habitations of such as were unable to remove it at their own cost, and also to adopt any other measures which might seem to them best calculated to discourage the introduction or check the progress of fever. In furtherance of these ends they were promised every assistance which the Police Magistrates and the Commissioners of Paving could afford.

In consequence of these instructions, the Governors of the House of Industry, with the assistance of Dr. Perceval and the physicians to their own Institution, digested a plan for the protection of the city, of which the following is a brief outline.

They divided the city and its environs into districts, over each of which they placed a Medical Inspector. These inspectors were ordered to ascertain the extent of fever in their respective districts, to encourage the infected to take advantage of the Fever Hospitals, to detect nuisances which were likely to be prejudicial to the public health, and to point out such houses or rooms as required whitewashing. The Medical Inspectors were further directed to make daily reports to the Governors and Physicians.

Every apartment in Dublin and its immediate neighbourhood which supplied the Hospital with a patient in fever, was whitewashed, and the areas, courts and lanes, in which masses of filth had been allowed to accumulate, were cleansed. For a considerable time there were two hundred persons in separate gangs, employed by the Governors of the House of Industry in cleansing the city, and in removing from those parts of it, which were not under cognizance of the Paving Board, the accumulated filth of years. The Liberties of Dublin, at the time these operations commenced, contained, in the private courts or areas behind the houses, innumerable depots of putrid animal and vegetable matter, which had apparently produced no very injurious effect upon the health of the inhabitants: it is certain that the Liberties yielded us very few cases of fever during the summer of 1817.

As it appeared that a fever had existed in the villages in the neighbourhood of Dublin for some time before it began to spread in the city, an inspection was ordered of the vicinity of Dublin, and a health return was made out, of which the following is a copy:

State of Health of Dublin and the adjoining Villages.

Districts.	Inspector or Informant.	Date of Inspection.	State of Health.	Remarks.
Bray,	Mr. Heffernan, Surgeon to the Dispensary, Bray.	Septem. 13	Fevers more prevalent than usual,	There are seven cases of fever under the care of Mr. Heffernan; they are mild.
In Dunleary, Stillorgan, Newton Park, Galloping-green, Kilmacud road, Seven houses, Ball's-bridge, Sandymount, & Ringsend,	Examined by Drs. Peebles and Murray, Medical Inspectors,	Septem. 15	Sixteen cases of fever were discovered, and thirty convalescents. Four from these districts were in hospital, and two had lately died,	Ten houses, from which patients in fever had been removed, required whitewashing—See Inspector's Report.
Among the Dublin mountains above Stepaside, and about Kilgobbin, Kilternan, & Sandyford,	Dr. Burke, Physician to Dispensary, Dundrum,	Septem. 12	Fever has nearly subsided,	Hardly a cabin escaped, so prevalent had fever been during the early part of the year.
Rathfarnham, Lucan, Leixlip,	Mr. Murray.	Septem. 16	Three persons in fever,	Whitewashing the town at the expense of the gentry. These were all medical men, Mr. Ferguson, Mr. O'Reilly, and Mr Goodshaw,
Clonsilla, Newbridge, Castletown, Cellbridge, Dunboyne, Carton,	Mr. Johnson and Mr M'Dowell, Medical Inspectors,	Septem. 12	Two persons in fever, Three do. do., Two do. do., Eighteen do. do.—9 convales. Twelve do. do.—9 convales. Two do. do.	Two persons were in Dublin in hospital from these places. The apothecary was in fever—2 persons in Church-lane, Cellbridge, had died within the last two or three weeks. Two fatal cases lately occurred in Dunboyne.
Finglas,	Mr. Johnson,	Septem. 15	Three do. do.	One of these in the Hard. Hosp.—the village healthy.
St. Margaret's,	Do.		Four do. do.	One of these sent to Hardwicke Hos. and there died.
Swords, Kilsela, Carduff, Macgill'stown, Baldoyle, and Dunabate.	Mess. Macdowell, and Johnson,	Septem. 13	One family affected in each of these villages,	Four had been sent from Swords into Hardwicke Hosp a fortnight ago; in these places the disease was very mild.
Dublin,	Physicians to the House of Industry,	Sept. 1, to Septem. 13	During which period 199 persons have been received into the Fever Hosp. of the House of Ind. from Dublin and neighbouring villages,	The average per week from 1st of last Jan. to the 1st of Sept. has been 27. The fevers are many of them severe, but attended with no particular malignancy. The Liberties unusually exempt from fever.
	Physicians to Cork-street-Hospital,	Septem. 9	Epidemic of the county does not extend to the city of Dublin—Printed Report,	Sept. 17, 1817.

WILLIAM ABBOTT,
Med. Clerk.

Notwithstanding the measures of medical Police, which were adopted, the fever continued to extend; and as the House of Recovery in Cork-street was full, as well as the Hardwicke and Whitworth Hospitals, several unoccupied wards in Steevens's Hospital were opened, at the desire of the Lord Lieutenant. When these wards were filled, his Excellency directed the Richmond General Penitentiary to be converted into a temporary Fever Hospital. He also directed patients in fever to be sent to Sir Patrick Dun's Hospital; finally, the City Bridewell, which was capable of containing four hundred sick, was ready to be converted into an hospital should the epidemic further increase; and such was the provident care of Government, that with the exception of one day, every person in fever, who applied to be taken into an hospital, was received during the autumn, winter, spring, and summer of 1817 and 1818.

Knowing that Doctor Renny, Director General of Military Hospitals, had paid much attention to the state of the public health, I applied to him for information with respect to the extent of hospital accommodation afforded by Government, and to his kindness I am indebted for the following interesting table:

General Report of Fever Patients admitted into the Dublin Hospitals, for nine months, commencing 1st of September, 1817, and ending 31st of May, 1818.

Fever Hospitals attached to the House of Industry.

First three months.

In hospital 1st September, 1817		87
Admissions from 1st } City	901	
Sept. to 30th Nov. } Country	237	1138
		1225
Discharged cured	1130	
Died	79	
In hospital 30th Nov.	101	1225

Proportion between the admissions and Deaths one in fifteen nearly.

Second three months.

In hospital 1st December, 1817		101
Admissions from 1st } City	1808	
Dec. to 28th Feb. } Country	235	2043
		2144
Discharged cured	1751	
Died	108	
In hospital, 28th Feb.	309	2144

Proportion between the admissions and deaths one in twelve.

Third three months.

In hospital 1st March, 1818		309
Admissions from 1st } City	2727	
March to 31st May. } Country	567	3294
		3603
Discharged cured	3021	
Died	129	
In hospital 31st May,	453	3603

Proportions between the admissions and deaths somewhat below one in twenty.

Admissions from 19th Sept. 1817 to 30th Nov. 383

Discharged cured	295	
Died	53	
In hospital, 30th Nov.	85	383

Proportion between the admissions and deaths one in twelve nearly.

STEEVENS'S HOSPITAL.

In hospital 1st December 1817		85
Admissions from 1st Dec. to 28th Feburary		548
		633
Discharged cured	536	
Died	15	
In hospital 28th February	82	633

Proportion between the admissions and deaths one in thirty-six and an half.

In hospital 1st March, 1818		82
Admissions from 1st March to 31st May		509
		591
Discharged cured	552	
Died	12	
In hospital 31st May	78	642

Proportions between the admissions and deaths somewhat below one in 46.

In hospital 1st September, 1817		131
Admissions from 1st Sept to 30th November		1191
		1322
Discharged cured	1030	
Died	56	
In hospital 30th Nov.	236	1322

Proportion between the admissions and deaths somewhat below one in twenty-one.

HOUSE OF RECOVERY, CORK-STREET.

In hospital 1st Dec. 1817		236
Admissions from 1st Dec. to 28th February		1543
		1779
Discharged cured	1445	
Died	85	
In hospital, 28th Feb.	249	1779

Proportion between the admissions and deaths one in eighteen.

In hospital 1st March, 1818		249
Admissions from 1st March, to 31st May		1718
		1963
Discharged cured	1860	
Died	61	
In hospital 31st May	242	1963

Proportion between the admissions and deaths somewhat below one in 28.

SIR PATRICK DUN'S HOSPITAL.

Admissions from 19th Feb. 1818, the day of opening the Fever Wards, to 28th following - - 95

Ditto from 1st March to 31st May - - 317 412

Discharged cured	385	
Died	19	
In hospital 31st May	8	412

Proportion between the admissions and deaths somewhat below one in twenty-one.

WHITWORTH HOSPITAL, on the Banks of the Royal Canal, near Drumcondra.

Admissions from 25th May, 1818, the day of opening the Hospital for the reception of patients, to 31st following - 12

Discharged cured	2	
In hospital 31st May	10	12

No Deaths.

RECAPITULATION.

First Period—Total of admissions during three months, ended 30th Nov. 1817 - - - 2752
Total Number of deaths in ditto - - - - - - 168
Mortality somewhat below one in sixteen.

Second Period—Total of admissions during three months, ended 28th February, 1818 - - 4344*
Total number of deaths in ditto - - - - - - 288
Mortality somewhat below one in fifteen.

Third Period—Total of admissions during three months, ended 31st May, 1818 - - - 5297
Total number of deaths in ditto - - - - - - 221
Mortality somewhat below one in twenty-four.

GENERAL RECAPITULATION.

Total of Admissions during nine months, ended 31st, May, 1818 - - - - 12488*
Total number of deaths in ditto - - - - - 677
Which gives a proportion of somewhat more than 47 admissions daily, and a mortality in the whole of admissions somewhat below one in eighteen.

* It is to be observed that the 95 patients in Sir Patrick Dun's Hospital on the 28th of Feb. 1818, are not included in the above number of 4344, although they are included in the General Total of 12,488.

Before proceeding further I shall beg to say a few words respecting the mortality in the Hospitals of the House of Industry, which, as compared with the mortality in some of the other hospitals, will appear excessive.

And, in the first place, the reader is reminded of an observation made by Sir Gilbert Blane, a physician of high authority in such matters, namely, that the comparative mortality of different hospitals is a most fallacious test of the success of Medical Practice, unless the nature and intensity of the several diseases is taken into account.

In the Hospitals of the House of Industry, the patients who died of the epidemic fever were comparatively few, as appears from returns in my possession, but the deaths from other diseases were numerous. Owing to the contiguity of the great pauper depot of Ireland to these hospitals, the most miserable objects of every description are always to be found in our wards. Under the alarm of fever, many were, in the present instance, brought to the Hospitals of the House of Industry from all parts of the city and adjoining country, who were actually dying of other diseases; and as it is a rule of the establishment not to deny admission to any person apparently in a dying state, and as the hospital for chronic patients, into which such persons were wont to be received, was converted, by order of Government, into a Fever Hospital, we had no alternative but to lay these individuals along side of our patients in fever, and

to insert their names in the registry of the Fever Hospital.

In order to throw some light on the causes of the uncommon prevalence of fever in Dublin, an inspection was made of the two streets which, during the months of September, October, November, and December, supplied our hospitals with the greatest number of patients, namely, Barrack-street, and Church-street; and the following paragraph is an extract from the report made by Dr. Peebles and Mr. Macdowell, the Medical Inspectors, who were employed in that duty.

"Barrack-street and Church-street are in the North side of the Liffey, and in the line of the Northern and Western roads. Barrack-street is nearly parallel with the Liffey, between which and its eastern extremity are yards for cattle and slaughter houses: the river at high-water is nearly on a level with the cellars. In Barrack-street there are 85 houses, the apartments of which are in general much crowded; thus 52 houses contain in 390 apartments 1318 persons, of which number 332 adults are unemployed, the greater number of whom are in a state of extreme indigence. There are several public houses, which are much frequented, particularly in the evenings, and many of the cellars are used as public eating rooms. Soldiers and their followers have hitherto afforded means of subsistence to many roomkeepers, who are now in great distress. During the

last three months 111 persons have had fever, which appears in general to have arisen from contagion. Church-street consists of 181 houses, which, with those in the adjoining courts, are much more crowded than the Houses of Barrack-street; thus, in 71 houses of this street, and adjoining courts, consisting of 393 apartments, 1997 persons dwell, of whom 628 are without employment. In Church-street, 123 persons have had fever within the last three months. Foul lanes, courts and yards are interposed between this and the adjoining streets. A few respectable shop keepers excepted, the entire street is inhabited by persons of the lowest order. There are many cellars which have no light but from the door, which, in several, is nearly closed by bundles of rags, vegetables, and other articles exposed to sale. In some of these cellars the inhabitants sleep on the floors, which are all earthen; but in general they have bedsteads. Most of the courts are crowded and filthy. Nicolson's court, which immediately joins the Root-market, contains 151 persons in 28 small apartments, of whom 89 are unemployed; their state is very miserable, there being only two bedsteads and two blankets in the whole court. Fever appeared in three apartments of this court; in one, the whole family were sick, the individual first affected not having been removed; in the others only two persons were taken ill, owing to early removal and cleansing. The effect of early removal of the sick, and the cleansing and whitewashing of their apartments, was very remarkable in checking the progress of the disease in some families, while, from the neglect of

these precautions, the number of the sick rapidly increased in others. Two neighbouring houses in Barrack-street afforded an illustration of this remark, namely, Nos. 41 and 47. In the former the disease began in two different families, and its progress was immediately checked by early removal, cleansing, &c. in the latter the individual first affected remained at home, and died of the fever, but not before he had communicated the disease to eighteen persons in a short time."

In addition to the foregoing account it was ascertained that many of the country people, labouring under fever, who came to Dublin in hopes of getting into an Hospital, took up their abode for a night in Barrack-street or Church-street, and next morning were removed to our Hospitals, or to the House of Recovery in Cork-street. It was probably in this way that the disease obtained so firm a footing in these streets.

The conclusions to be drawn from these and similar facts seems to be, that where the disease was introduced among such communities of the poor as had little connexion with the higher ranks of society, and were destitute of employment, and consequently ill supplied with food, clothing, and fuel, among such as, from the severe pressure of the times, were so dispirited as to be indifferent to the danger of infection, it spread with celerity, and pertinaciously maintained its influence.

Between the years 1806 and 1817, as appears from an interesting report of the Fever Hospital in Cork-street, published by Dr. Grattan, the smallest number of patients admitted, in any one year, into that excellent institution was 1056, namely, in the year, ending on the 5th of January, 1810. In the year 1809, there were 1176 patients in fever admitted into the Hardwicke Hospital. From my own knowledge of the poor, gained while I was one of the physicians to the Meath Hospital, I am persuaded, that of the fever patients in Dublin, not one half seek the acccommodation of an hospital, unless perhaps during the alarm of an epidemic. Now, supposing there were only 4000 cases of fever in 1809, and of these 4000 cases only one half, or one fourth, nay, supposing only one tenth part were contagious, it is obvious that, even in the healthiest year of the last ten, there was a sufficient stock of contagion in this city to infect its inhabitants, and hence, that fever might have been expected, at any time during that period, to extend itself more or less widely, according to the activity of its predisposing causes, at the head of which are unquestionably an insufficiency of wholesome food and despondency. Nor is it necessary to confine this remark to the population of Dublin. Were this the proper place, I could shew, from authentic documents, that fever has not been extinct in any of the great towns in Ireland, during the period above specified. Before the establishment of Fever Hospitals in Dublin I have reason to think that fever was more

general, and more malignant also and fatal than it has been since.*

I cannot help observing, that in the street which is contiguous to the principal barrack in Dublin, there were more cases of fever, than in any other part of the city; and as the disease affected many of the women of the town, whose haunts are in that street, it is probable that the soldiers in garrison were at least as much exposed to contagion as any of the lower class of the inhabitants, and yet they escaped, probably from being but little under the influence of the predisposing causes of fever; for, to borrow the words of a distinguished medical officer, "the pay of the soldier is ample; he is well clothed, well fed, well lodged and well looked after, and all his wants in health as well as in sickness are provided for." The following return of the fever cases admitted into the King's Infirmary, (which is the General Hospital of the Garrison,) for the last two years, will show, that although the epidemic had prevailed in Dublin during four months of the year 1817, yet the cases of fever which occurred during that year among the troops, were much less numerous than they were in 1816, which was a very healthy year in Dublin, and thus, I think, we have an additional proof that

* These Institutions have been as useful as they are honourable to our age and country, but still they ought to be considered as only a part of a system for extinguishing febrile contagion, the foundation of which must always be an active and *scientific* Board of Health.

the diffusion of the epidemic depended more upon its predisposing causes than upon any peculiar activity of its contagious principle.

Return of the Fever cases admitted into the King's Military Infirmary for the last two years.

		Admitted.	Died.
From 25th December 1815	to 24th January 1816	77	2
25th January 1816	to 24th February	84	2
25th February	to 24th March	70	2
25th March	to 24th April	54	2
25th April	to 24th May	32	0
25th May	to 24th June	46	0
25th June	to 24th July	54	1
25th July	to 24th August	29	3
25th August	to 24th September	17	1
25th September	to 24th October	21	0
25th October	to 24th November	27	1
25th November	to 24th December	21	2
Total for the year 1816		512	16

Average number of effectives 4983

		Admitted.	Died.
From 25th December 1816	to 24th January 1817	23	0
25th January 1817	to 24th February	17	3
25th February	to 24th March	17	1
25th March	to 24th April	22	1
25th April	to 24th May	15	1
25th May	to 24th June	44	3
25th June	to 24th July	22	0
25th July	to 24th August	23	0
25th August	to 24th September	44	0
25th September	to 24th October	32	0
25th October	to 24th November	27	0
24th November	to 24th December	50	3
Total for the year 1817		336	12

Average number of effectives 4319.

Indeed, as appears from documents in the office of the Director General of Military Hospitals, the army of Ireland continued to enjoy excellent health up to the latest report, (viz. July 1st 1818) The garrisons in Dublin, Cork, Limerick, Waterford, Clonmell, Kilkenny, Belfast, and other towns, in which the fever was extensively prevalent, were all healthy. The mortality of the whole army in June 1818, was only 12, whereas it was 24 in June 1816, and 22 in June 1817.

There were a good many cases of fever among the pawnbrokers, huxters, and shopkeepers, a numerous body in Dublin, but the disease was rare in the higher ranks, and there were very few instances of the fever extending to a second person in any house in which proper attention was paid to cleanliness and ventilation, which was a compensation for the much greater mortality of the disease when it occurred among the middling or upper ranks, by whom alone such attention could be paid.

Many of the officers of our establishment caught the disease. Eight or nine medical gentlemen of those who were doing duty in the Institution were affected with fever. The Steward, a very valuable officer, while zealously engaged in establishing order in the Richmond General Penitentiary, fell a victim to the disease. All the servants in succession whose business it was to remove the clothes of the patients upon their first admission, were affected with fever in a very severe form. Most of the unseasoned nurses

took the disease. At one time, in the early part of the spring of 1818, in four wards which were under my care, there were three of the nurses ill, now, as there was no relaxation in the discipline of the Hardwicke Hospital, the increase of fever among its nurses probably arose from the fatigue and alarm incident to such a crisis, which, by lowering their health, threw them unusually open to contagion.

From the middle of August until the end of March the state of the epigastrium demanded constant attention. In three cases of four the epigastrium was tender on pressure, sometimes remarkably so. The patients sometimes suffered from irritability of the stomach; nausea being a predominant symptom, and severe vomiting. This condition of the stomach was complained of shortly after the rigor of attack, and continued to be very distressing during the first week of the fever. Epigastric irritation being substituted for pulmonic, the disease in all other respects continued the same; in point of cerebral disturbance in the more advanced period of it, in point of duration and of crisis; but this change, as might have been expected, considerably changed the aspect of the disease. The following was the condition of the patient on the third and fourth, and from that to the ninth or tenth day of the fever—anxious expression, deep and often circumscribed flushing of the countenance, dry tongue, which gradually become brown also, greater heat of the surface, although with less frequent petechiæ, quick weak pulse; cough without

pain in the chest or increase of respiration. In most cases the cough and quickened breathing seemed connected with an irritation seated below the diaphragm; for when the epigastric tenderness, which was generally the leading feature of the disease in its first stage, was removed, the cough and quick respiration subsided, and the disease ended favourably.

Crisis was generally obtained by sweat, which often followed a rigor. About the time of crisis the patient generally slept much, and the usual changes took place in the urine. It is worthy of remark, however, that some patients rather unexpectedly died, after the struggle of, what had promised to be, a favourable crisis by perspiration.

In many cases attended with alarming symptoms, crisis took place about the fifth or seventh day; in such cases, however, a relapse occurred very frequently about the end of the second week, and a second and final crisis took place on the seventeenth or twenty-first day, counting from the first invasion. Those of our Institution who caught the disease, servants, nurses, and medical attendants, were very liable to such relapses; indeed, I never knew relapses so frequent as during the spring of 1818.

The degree of temperature, and frequency of the pulse and respiration were ascertained in one hundred cases during the months of January, February, March, and April, 1818, and the following was the result:

Temperature.

95°	97°	98°	99°	100°	101°	102°	103°	104°	105°	106°	107°	108°	109°
1	3	1	3	4	6	4	7	15	15	23	15	1	1

Pulse.

30	60	70	72	76	78	80	84	86	88	90	92	96	98
1	1	5	3	2	1	1	3	1	3	4	1	2	1

100	104	106	108	110	112	114	116	118	120	124	126	132	136	150
14	2	5	9	3	4	1	2	2	15	1	2	3	2	1

Respiration.

14	16	18	20	22	24	26	28	30	32	34	36	38	40	50
1	5	5	20	5	12	7	11	9	12	1	5	3	4	1

The temperature might be considered excessive in a majority of the cases: in fifty-five cases it was one hundred and five or upwards; in eleven of these cases the pulse did not exceed one hundred and four; and in twenty-five the respiration did not exceed thirty; in seven of these twenty-five the respiration did not exceed twenty in the minute. Headach was a predominant feature of the disease in thirty of the above fifty-five patients, great tenderness of the epigastrium in twenty-eight, while not more than eleven had cough, of whom only five had pain or stitch in the side, and one expectoration of mucus tinged with

blood. It is observable, that while excess of temperature prevailed in so many instances among the patients in Nos. 1 and 4, there did not take place one death among those admitted between the 1st of January and 15th April, when I resigned these wards, except Dempsey in No. 4, and Evans in No. 1, both of whom died, and were removed to the dead house before my visit. It is further observable that there were only nine cases of the whole number (one hundred) in which petechiæ could be discovered.

As in many of the most urgent cases of the epidemic it appeared to me that the epigastrium was the part chiefly affected, I learnt with surprise that the stomach and alimentary canal were sometimes found in an apparently sound state, even in subjects in whom epigastric tenderness had predominated. Thus in a case reported by Mr. Cumming, clinical clerk, in which tenderness of the epigastrium existed during a great part of the disease, on opening the body, not the slightest morbid appearance could be discovered, except a small quantity of bloody serum effused into the cavity of the abdomen, and a very inconsiderable blush in the mucous membrane of the stomach, at the part where the œsophagus enters. In this case, however, a critical effort by sweat took place on the day before the patient died, and perhaps changed the distribution of the fluids, which were thus determined from the centre to the surface of the body. In like manner, in a dissection which was transcribed for me by Mr. Crawford,

in which tenderness of the epigastrium existed on the day before the patient died, all the viscera of the abdomen had a healthy look; there were no morbid appearances, but a small quantity of serum in the cavity of the abdomen, and serous effusion on the surface and in the cavities of the brain. Mr. Crawford adds to this case the following observations: "I have met with a few more cases in which there was epigastric tenderness without any corresponding morbid appearance, but I could not discover them among the number of cases which I have noted; but the case of a woman named Farrell is fresh in my recollection, who, a few days after her recovery from a slight attack of fever, relapsed with severe pain in the epigastric region, and in the whole right side of the abdomen, the left side being but slightly affected. The pain was so great that it prevented her from moving, and occasioned constant moaning. She could not bear the least pressure on the epigastrium, nor on the right half of the abdomen. The pulse was frequent, and very weak, and the feet cold. She got some relief from the application of leeches, and of a blister to the abdomen; the bowels were freely opened, but she died on the third day of her illness. The dissection did not account for such severe symptoms."—Let me add, however, that in the dissections which I have superintended, after those cases of fever in which this symptom predominated, the inner surface of the stomach was always more or less inflamed.

There was another anomaly in dissection which

requires to be mentioned, namely, a state of great congestion, which was sometimes observed in certain portions of the intestines, and which, in as far as I could learn, was not always preceded by obvious symptoms of intestinal disorder. The portions in question were of a dark purple, and sometimes of a puce colour; they were easily lacerated; on neither surface of the intestine was there much morbid secretion. The coats of the intestines at the parts alluded to were separable from each other without difficulty; the coats were not thickened but highly vascular, which vascularity appeared venous. In one of these cases hæmorrhage from the intestines occurred, and yet the appearance differed altogether from that which we see after a fatal attack of Melaena.

Tenderness of the epigastrium was with more certainty and safety relieved by topical than by general bleeding, although the latter was frequently employed also. If the patient was young and plethoric, and was admitted when the disease was in its infancy, and if he complained, as such patients generally did, of pain or tenderness of the epigastrium, was flushed and anxious, I began with venesection; and if he still complained of distress at the pit of the stomach, I ordered ten or twelve leeches to be applied. Venesection was seldom repeated, but leeching not unfrequently, this remedy being one of remarkable efficacy. After the first or second application of leeches, I frequently ordered a blister to the epigastrium, small doses of neutral salts were given, or some of

the saline diaphoretics, and in this manner the distress at the præcordia being relieved, the disease pursued a more temperate course.

It is obvious that no specific rule for regulating the quantity of blood to be drawn can be established: this matter must always be left to the discretion of the practitioner. It is my duty, however, more especially as I have the name of being an advocate for bloodletting in fevers, to state, that several cases have come to my knowledge in which full bloodletting, practised when the disease was confirmed, proved injurious: great prostration followed; and, although the local determination, which probably demanded a cautious use of the lancet, was subdued, yet the struggle was more dubious than it otherwise would have been. In two instances I had reason to think that full bloodletting was productive of fatal effects; one of these cases was characterised by vigilance, a tongue scarcely affected, great quickness of the pulse, dun confluent petechiæ; both cases were atactic. But these were instances of the abuse of bloodletting. There are many cases of fever in which bloodletting is inadmissible in any stage of the disease; and there are many cases in which early bleeding would be salutary, while late bleeding would ruinous; in like manner, as there are many cases of syphilis or intermittent fever in which mercury or bark, in certain periods of the disease, would be little better than poison: when I am called an advocate for bloodletting in fever, I request it may be understood that it

is discriminative bloodletting which I advocate. In the Hardwicke Hospital twelve ounces of blood were seldom exceeded at one bleeding; ten ounces might be considered the average quantity taken from an adult. There were doubtless some few patients who lost a larger quantity at once; but so impressed was I with the danger of carrying this excellent remedy too far, that when twelve ounces of blood were to be exceeded, I considered it my duty to superintend the operation. Nor did I often prescribe more than twelve leeches, ten or twelve being the number commonly ordered to the epigastrium, and eight to the temple or behind the ear. The head and epigastrium were more certainly to be relieved by topical than by general bleeding. The relief of the lungs was obtained by venesection in the first instance, and then by cupping and scarifying.

I seldom saw a patient early enough for the trial of free bloodletting as a means of arresting the course of fever; the only individual with whom I attempted this summary method of cure was one of our ward-maids. I was not able to superintend the experiment, which did not succeed. The quantity of blood drawn did not exceed twenty ounces; a middle course which I should not recommend any person to follow. It is proper to state, however, that the fever in this individual, although it was not checked, was mild. During the winter and spring I ordered bloodletting sometimes with a view of abating reaction, generally however to subdue organic determinations,

which being accomplished, the crisis followed, almost immediately after, in more instances than could have been excepted; the result, according with an observation, which I believe may be found in Fordyce, that when any one organ is much more affected in fever than the rest of the system, the whole disease will often abate as soon as the particular organic affection is subdued.

In cases in which epigastric tenderness did not exist, in which the febrile excitement seemed to be equably felt by all parts of the body, in which there were no determinations to the viscera of the thorax and abdomen, and no remarkable determination to the head, the cold effusion was used in some few instances by me, and frequently by my colleagues, and it cut short the disease in several, and in many it moderated its violence. In the more advanced stages of the disease, tranquillity, which lasted for a considerable time, was sometimes obtained by pouring a bucket of water at 95 or 96° over a flushed, delirious, and unmanageable patient.

In some severe cases the bowels were remarkably obstinate, even when there was no fullness of the abdomen, but the contrary. The common attempt to procure stools by drastics, in such cases, rests upon erroneous notions of pathology, and will often fail. In a patient, in private practice, to whom I was called on the 10th day of fever, whose face and scalp were injected with dark blood, who lay supine, breathed

with stertor, and was insensible, the bowels had resisted the most drastic purgatives, and yet there was no obstruction, no fullness of any part of the abdomen, which on the contrary was remarkably lank. Indeed it seemed that the excitability of the intestines was suspended, as well as the secerning function of the abdominal viscera; for the most stimulating glysters had been given in vain, and scarcely any urine had been secreted. In this case the opening of the temporal artery, from which the darkest blood flowed, restored the patient for a few hours to the use of his understanding, but next day he died. In similar cases, after emptying the vessels of the head, employing the tepid affusion and blistering the legs, I should recommend an exhibition of calomel and opium. When, during the epidemic, the affection of the head resisted bleeding, cold applications, purgatives, the tepid affusion, and blisters, we had recourse to a bolus at bed-time, which contained one grain of opium and five of calomel, and during the day, two grains of calomel with a third, or rather a fourth, of a grain of opium, were given every fourth or sixth hour, often with apparent benefit. But surely this combination ought not to be adopted as a general remedy for a disease which was not fatal to one patient in thirty, and which, in three cases of four, required only an occasional bleeding, with due attention to the bowels, free air, and dilution. A course of calomel and opium is very apt to leave the patient excessively weak, and it very generally affects the mouth; by this combination were produced some of the most severe

cases of ptyalism I ever witnessed; and the mercurial sore mouth is an insufferable grievance to a convalescent from fever, a grievance to which dysentery, also arising from mercury, was sometimes added. At one time, about the middle of January, 1818, I had three or four patients in my wards whose sufferings from the effects of mercury I shall not soon forget; and at the same time, there was a girl in the hospital whose cheek was perforated by an extensive slough, which was produced by the effects of mercury given in combination with opium.

Of purgatives, cooling drinks, cleanliness, including frequent change of linen and personal ablution, large airy apartments, and thorough ventilation, there appears now to be but one opinion among physicians. With regard to bloodletting, mercury, opium, and wine (to some one of which, in many otherwise excellent works on fever, an undue bias may be discovered) I beg to remind the young, inexperienced, and ardent practitioner, that they are remedies applicable only to particular cases; and with respect to the use of such powerful means, it may be observed, that while the perfection of our art consists in knowing the exact point at which expectation should yield to action, the greatest authorities in medicine have been more apprehensive of the officiousness of zeal, of the nimia diligentia medici, than of that degree of distrust in the resources of Prescription which will prevent us from interfering with the operations of nature, upon every trifling alarm.

Calomel and opium did not answer my expectation unless in two modifications of the disease, namely, 1st, in that above alluded to, in which determination to the head was remarkable. Thus, when the fever was characterised by dun petechiæ, vigilance, delirious nights, confusion of thought, flushing of the countenance and eyes; when there was a faltering voice, some frequency and irregularity of the respiration, quick unsteady pulse, scanty secretions, without great abdominal tension, calomel with opium was of signal service. 2dly, In an affection of the stomach, which was not uncommon during the epidemic. After excessive irritability of the stomach, which had been quieted by venesection or leeches, and sulphate of magnesia in infusion of roses, the patient sometimes fell into a state of great prostration, indicated by a pale, anxious, collapsed countenance, with a desponding mind, which seemed on the verge of low delirium, a quick, unsteady, and weak pulse, and an iron grey colour of the tongue, which was dry, rather swoln, but scarcely furred. In such cases one-half, or one-third of a grain of opium with two grains of calomel every third or fourth hour, seemed to restore the patient from a situation nearly desperate. I was led to prescribe this combination from my experience of its efficacy in inflammations of the the villous coat of the stomach, when it has been given after bloodletting had been urged as far as the case would admit of. But I would have those who attribute the principal part of the benefit which arises from the combination of calomel and opium to the

former ingredient, to read the passage in Fordyce,* in which small doses of opium are recommended in the second week of fever, as a means of converting delirium into that state of half sleep half stupor, which generally attends a favourable crisis. From small doses of opium, either alone or combined with a common purgative, I think I have seen all the benefit obtained, which we have lately been taught to expect exclusively from the united influence of calomel and opium.

Of the patients who were admitted into the Fever Hospitals of the House of Industry, between the 1st and 10th of September, twenty obtained crisis in the course of the first thirty-six hours, several of these on non-critical days. Removal during a fever from an indifferent room or house, to one more airy, quieter, or more commodious, is justifiable in any period of that disease. In private practice, at our first visit, we ought to consider whether it would be expedient to have the patient removed to a better chamber or lodging; I can answer for the safety of such removal, during fever, of persons of the middling ranks of society, as well as of the lowest class.

Symptoms of the dysentery occurred in some patients after the beginning of October; they not unfrequently formed a part of the disease during the whole winter. In our dissections the mucous membrane of the stomach and intestines was oftener in a pulpy

* Fordyce on Fever, Dissertation iii. p. 236, 7, 8.

and vascular state, and coated with a morbid secretion, than it had been during the summer; but the brain still continued the chief seat of the morbid appearances. I do not recollect a single dissection in which the remains of an excited state of the vessels of the brain did not appear,—in which the surface of the brain was not in an inflamed, or rather subinflamed state, as was demonstrable either from the state of the minute arteries, or from consequent effusions. *Inflamed* would perhaps be too strong a term to apply to a degree of vascular action, which in no instance led to the formation of purulent matter, and which, in only one instance of all the dissections which I witnessed, or were reported to me, ended in the formation of coagulable lymph.

During the winter I occasionally observed cases similar to some of those which occurred in the preceding spring, marked by early prostration, pallid dejected countenance, the tongue as if dusted with chalk, with a triangular stripe of red at the apex, sunken features and stupor, the temperature being low, and the pulse by no means quick; but these cases were intercurrents only; the epidemic, in a vast majority of the cases, continued unaltered, petechiæ being early observable, and many being affected with severe pains in the loins, and pains and tenderness all over the body, which deprived them of the power of moving.

These universal pains, which often attended the

fever, were generally relieved by a combination of calomel and antimonial powder, repeated at intervals of four or six hours, and continued for two or three days; a remedy which was also of great use as a preparative for the bark in several cases of rheumatic fever. I learn from some of the gentlemen employed in attending the sick in the Richmond General Penitentiary, that the severe pain and tenderness of the loins, which was a most distressing part of the disease in the summer of 1818, almost always yielded to leeches applied to the lower part of the spine.

In the third week of January, 1818, I had a case of exquisitely marked bronchial inflammation in No. 4; and in the dissecting room an inflamed state of the mucous membrane of the lungs was frequently observed: about this period coughs became rather more common, but cough was not a frequent symptom before the month of May, and even then it was rare compared with the preceding summer.

I never witnessed so large a proportion of patients in fever, jaundiced, as during the summer of 1818. Now, while I am drawing up this report (July 1818) we have what would have been counted by some of the older writers, a strongly marked bilious constitution, which they would probably have referred to the uncommon and long continued heat and drought of the season. The great majority of these cases probably depend upon congestion and active absorption of the bile. The icteroid colour generally yielded to leeches applied to the right hypochondrium, or cupping and scarifying, sometimes blisters and a solution of neutral salts, to which a few doses of the blue pill were generally added; but many of the cases of this affection doubtless admitted of a spontaneous cure. One patient in fever, in the upper rank of life, became jaundiced on the sixth day of his disease, who had taken calomel every night at bedtime, and castor oil in the morning; after the appearance of the yellowness of the skin he continued to take three grains of calomel at bedtime with half a grain of opium, and generally a purgative in the morning, for six nights more, at which period the fever left him, the yellowness having previously become faint. Moreover, there were frequently observed two kinds of icteroid fever, which were unconnected with any peculiar epidemic constitution. First, in those who laboured under a diseased condition of the biliary organs (porter, punch, or whiskey-drinkers); and under this head two cases are to be referred to, in which gall stones were found impacted in the cystic or common duct. Secondly, in some of those who had been much neglected at the outset of their illness, and who had been reduced in health when the fever seized them; with these the change of complexion was sudden, and death followed at no great distance of time; according to the nurses the change was often instantaneous:—"Sir, I went to warm a drink "for him, and when I returned he was as yellow as "a lemon." Representations of this kind have frequently been made to me, and, making every allowance for the *ideality* of the lower orders in this country, there is no doubt but that the change was often the work of a very short time.

In the month of March, 1818, the physicians to the House of Industry having found the fever wards obstructed by patients who were labouring under the sequelæ of fever, recommended the Governors to separate these patients from those who were actually in fever. To this, as to every suggestion of their medical officers, the Governors of the House of Industry paid immediate attention, and ordered all such patients as were not actually in fever, or were not in a state of progressive recovery from fever, or its effects, to be removed to the wards in the upper floor of the Whitworth Hospital. Anxious to study fever in its effects, and thus to complete my view of the epidemic, I obtained the charge of these wards, and discovered that the most common sequelæ were diseases of the mucous and serous membranes: tubercular consumption, called into activity by excitement of the bronchial membrane, and which always ran a rapid course; hydrothorax and hydrocardia, hæmatemesis, dysentery, ascites, and ophthalmia. Chronick rheumatism was not infrequent; and there were some other affections of more rare occurrence: mania, paralysis, hysteria, an affection, not confined to the female sex, resembling phlegmasia dolens. But the subject will be best illustrated by a tabular view, which the reader will find at the end of this report.

The following tables are constructed in imitation of table I. and II. in my first report; prefixed to which there are some explanatory remarks, to which the reader is referred upon the present occasion.

It appears from the first column of the first table, that of the patients admitted 368 were males, and 333 were females; and that the deaths among the former were twenty-six, while among the latter they were seventeen only.

Of the columns of general and topical bleeding it is observable, that seventy-seven patients were let blood twice, sixteen three times, nine four times, one five times, and one six times; thus the number let blood was reduced to 371, and it was frequently to such as were let blood from a vein that leeches were applied.

Columns of wine, porter, and punch.—I never withheld wine when it appeared to me likely to be of the least use to a patient; nay, sometimes I gave it to those who greatly longed for it, even when it appeared that they but little required cordial support; notwithstanding which, the allowance, had it been equally apportioned, would not have given a pint each to 701 individuals. I have already remarked that there is but little economy in substituting punch for wine; a physician who wishes to maintain discipline will not introduce punch into his wards. Perhaps I ought to acknowledge, that I cordially dislike both the sight and smell of punch, from having so often witnessed the ruin that ardent spirits, unmixed or diluted, brings upon the health and morals of the poor of this country.

With regard to table II. the reader is requested to observe, that the following persons died in less than twenty-four hours after their admission, viz. 348, Mary Kennedy; 369, Alice Conroy; 454, Rose Sweetman; 550, Cromwell Coghlan; 794, Matthew Lawler; 1147, Alexander Graham; 1877, James Reilly; 1192, Eliza Dempsy; 1415, Thomas Evans; and that 634, Pat. Tynan died in thirty-six hours after he was admitted. Secondly, That in 429, Peter Doolan, and 1666, Cicely Fox, the extremities were livid, and in 803, Mary Malone, the back was in a state of slough when they were admitted; and thirdly, that Catherine Fay died of hepatic abscess and abortion; 344, Joseph Saville, of chronic inflammation of the lungs; 446, Pat. Mahony, of paralysis; 480, Terence O'Neill, of hydrocephalus after insanity; 741, Catherine Farrell, of pneumonia; 558, Laurence Harris, of urinary abscess; 640, Pat. M'Coote, of inflammation of the stomach; 1237, Michael Magee, of sloughing of the penis; 1763, Jane Ryan, of consumption; and 2215, Edward Martin, of dysentery. Had such as were bona fide dying, when they were admitted into the hospital, been placed in a separate ward, the mortality, instead of being one in between sixteen and seventeen, would not have been one in thirty; nay, from December to the end of June, in our whole hospital establishment, it would not have been one in forty.

B. in the last column of this table, intimates that the patient was bled; N. B. that he was not bled; of

those who died of fever, very nearly two thirds were not let blood.

Most of the dissections which follow were made by Mr. Macdowell, on whose knowledge of anatomy and accuracy of description the reader may implicitly rely.

It was originally my intention to continue my labours in the Fever Hospital for another year, expecting, in a period of three years, to meet with most of the common varieties of the continued fevers of this country; but, by the resignation of my friend, Dr. Edward Percival, a part of the Hospitals of the House of Industry which does not contain any patients in fever, has fallen to my charge, and hence, as I no longer possess the same ample opportunities of observing the phenomena of fever, this shall be the last publication on that subject with which I shall trouble the reader.

TABLE I.

1817 & 1818. Month.	No. of Ward.	No. of Admissions.	No. of Discharges.	No. of Deaths.	No. of Bloodletings.	Arteriotomy.	No. of Leechings.	No. of Cuppings.	P. Wine, No. of Ounces.	Punch, No. of Pints.	Porter, No. of Pints.
April.	1	21	19	2	28	2	3	2	362		9
	4	22	18	4	24		1		594		1
May.	1	34	30	4	30	2	1		524		
	4	35	33	2	22	6	2		244		
June.	1	34	29	5	27	5	2		502		1
	4	29	29		30	8	2		100	5½	16
July.	1	28	27	1	13	5	10	1	442		
	4	29	28	1	20	7	3		466		
August.	1	34	32	2	26	6	15		382		
	4	34	33	1	27	2	7	1	306	2	
September.	1	39	35	4	31	3	19	1	366		
	4	30	29	1	26	1	23		352		
October.	1	29	27	2	28		12		458		
	4	31	28	3	32		18		294		
November.	1	37	33	4	19		17	2	228		
	4	30	28	2	16		22	1	498		
December.	1	33	32	1	21		16	3	282		
	4	27	25	2	7	1	9	1	404		
January.	1	25	25		17	16	22		416		
	4	21	21		12	10	20		492		2
February.	1	25	24	1	17	5	24	1	320		
	4	24	23	1	12	7	16		490		7
March.	1	29	28		18	3	27		166		
	4	21	21		13	4	16		172		
Total. . .		701	657	43	516	97	308	15	8860	7½	36

TABLE II.

Extracted from the Registry of the Hardwicke Fever Hospital.

No. of days sick before admission.	No. of Ward.	Name.	Age.	Religion.	Born.	Occupation.	Admitted.	Ward.	Died.	Remarks.
7	340	Catherine Fay	26	R.C.	County Louth	Lab.'s wife	April 15	4	April 30	Hepatic Abscess.
10	344	Joseph Saville	41	P.	Co. Wicklow	Labourer	April 17	1	May 6	Chronic Inflammation of lungs.
7	348	Mary Kennedy	28	R.C.	County Meath	Lab.'s wife	April 17	4	April 19	Pneumonia.
3	360	Alice Conroy	16	R.C.	Co. Leitrim	Servant	April 23	4	April 28	Enteritis.
6	374	Robert Short	26	R.C.	Queen's Co.	Drayman	April 24	4	April 30	B.
6	376	M. Ann M'Mahon	26	R.C.	Dublin	Servant	April 25	4	April 29	B.
28	4	Catherine Duke	45	R.C.	County Dublin		May 6	1	May 16	N. B.
25	40	Peter Dolan	50	R.C.	County Dublin	Labourer	May 6	1	May 9	N. B.
30	44	Thomas Mahony	50	R.C.	Cork	Nailer	May 10	1	May 20	Paralysis.
2	404	Rose Sweetman	50	P.	Dublin		May 13	4	May 15	Apoplexy.
6	404	James Gough	43	R.C.	From England	Pedlar	May 13	1	May 27	N. B.
60	404	Terence O'Neill	30	P.	From House of Industry		May 16	1	May 23	Hydrocephalus after insanity.
6	327	Terence Hanlon	27	R.C	County Louth	Labourer	June 2	1	June 10	B.
	340	Cross. Coghlan	36	P.	County Down	Shoemaker	June 3	1	June 4	N. B.
60	356	Lau. Harris	39	R.C.	County Cork	Coachman	June 7	1	June 27	Urinary Abscess.
7	381	Patrick Tynan	28	R.C.	Queen's Co	Cooper	June 17	1	June 25	N. B.
3	64	Patrick M'Coot	37	R.C.	County Louth	Labourer	June 23	1	July 4	B.
6	241	Cath. Farrell	4	R.C.	Co. Dublin	Servant	July 21	4	July 27	Pneumonia.
7	261	Patrick Lutney	31	P.	Co. Fermanagh	Labourer	July 25	1	July 31	B.
	274	Matthew Lawler	50				July 27	1	Aug. 3	Speechless.
2	302	Mary Malone	22	R.C.	Dublin	Servant	Aug. 1	4	Aug. 8	N. B.
8	329	John Aungier	50	P.	Dublin	Silk Weaver	Aug. 11	1	Aug. 16	N. B.
5	304	Cat. Cunningham	40	R.C.	Roscommon	Servant	Sept. 6	4	Sept. 7	N. B. Leeched.
	314	Alex. Graham	30	R.C.	Dublin	Cutler	Sept. 13	4	Sept. 17	N. B.
	1037	Mich. M'Gee	28	R.C.	Monaghan	Smith	Sept. 23	1	Octo. 1	Sloughing of Penis.
	1041	Dennis M'Guire	50	R.C.	County Meath	Labourer	Sept. 23	1	Sept. 27	N. B.
7	1031	Simon Taylor	41	R.C.	Jamaica	Saddler	Oct. 12	1	Octo. 21	N. B. Leeched
6	1033	Andrew Lawler	36	R.C.	Queen's Co.	Carpenter	Oct. 12	1	Octo. 20	B.
7	1005	Cecily Fay	3	R.C.	Galway	Servant	Oct. 21	1	Octo. 25	Atteriotomy.
7	1010	Eliza Loftus	20	P.	Derry	Servant	Oct. 23	4	Nov. 15	B.
10	174	Jane Ryan	4	R.C.	Dublin	Servant	Oct. 28	4	Nov. 18	Consumption.
21	1057	James Reilly	40	R.C.	County Meath	Labourer	Nov. 8	1	Nov. 14	N. B.
6	1061	Hugh Reilly	30	R.C.	Cavan	Labourer	Nov. 13	1	Nov. 21	N. B. Leeched.
6	1056	Anne Keane	55	R.C.	Queen's Co.		Nov. 13	4	Nov. 19	N. B.
8	1060	Eliza Herne	19	R.C.	Dublin	Servant	Nov. 13	4	Nov. 25	N. B.
3	1035	Edward Martin	11	R.C.	Dublin		Nov. 20	1	Nov. 25	N. B.
5	1036	Phillip Mills	40	P.	Limerick	Watchman	Nov. 20	1	Dec. 4	B.
3	1066	Arthur Magee	45	R.C.	Armagh	Labourer	Nov. 30	1	Dec. 7	N. B.
3	337	Eliza Willis	4	I.C.	King's County	Servant	Dec. 4	1	Dec. 21	B.
4	276	Anne Mooney	40	R.C.	Co. Westmeath	Servant	Dec. 16	1	Jan. 4	B.
4	1195	Eliza Dempsey	5	R.C.	Queen's Co.		Dec. 28	1	Jan. 4	
8	1011	Thomas Evans	35	P.	King's Co.	Shoemaker	Feb. 14	1	Feb. 14	N. B.
							Feb. 12	1	Feb. 21	N. B.

343, Catharine Fay, was admitted on the 7th of April on the 8th day of her illness, she had hectic fever which appeared to arise from an hepatic abcess, for, along with rigors, she had pain in the right hypochondrium, dry cough and irritability of the stomach, and she became deeply jaundiced. After aborting on the 29th, she was seized with convulsions and died shortly after.

344, Joseph Saville, admitted on the 17th day of April, was an emaciated enfeebled old man, who had been in a fever for three weeks, but as his pulse was only 72, and temperature 98°, it seemed to have subsided, leaving him with a cough, oppression at the chest, and difficult expectoration; so neglected had he been that for five days previous to his admission he had been without a stool. His pulse soon became quick, the oppression of his breathing was accompanied with a circumscribed flush of his cheeks, hectic fever became confirmed, and he died on the 6th of May.

348, Mary Kennedy, subject to a short cough and dyspnœa, was admitted on the evening of the 17th day of April, on the 9th day of her illness, which arose from the fatigue of travelling for several days under a heavy burthen. The symptoms of her complaint on the 18th were cough, oppression of the chest, expectoration of yellow mucus, livid flushing, headach, pains in her bones, great thirst and constipation for four or five days. P. 130, Resp. 44, Temp. 100°.

Abradantur Capilli. Mitt. Sanguis ad ℥ vi. *Fov. Crura. Vesicatorium amplum Pectori. Decocti senekae* ℥ i, *4tis horis.*

Blood, with a thick coating of pale size, not less than three-fourths of an inch; crassamentum dark and grumous. In the evening she became faint and lethargic, and died about eleven o'clock, p. m.

Dissection.—The liver extended considerably below the margin of the ribs. The stomach, containing a considerable quantity of fluid, was greatly distended with flatus. The lower part of the jejunum was more than usually vascular. The right lung did not recede like the left; it was much enlarged, and was connected by recent adhesions, easily broken up, to the diaphragm and pericardium, and at the upper and back part to the pleura costalis; although it appeared more than usually solid, it broke down with ease under the finger. The left lung was healthy externally. The mucous membrane of the trachea was inflamed, and the inflammation extended into the bronchiæ. A considerable quantity of puriform matter flowed from the cellular structure of the lungs. The increased size of the right lung accounted for the descent of the liver. The right side of the heart was greatly distended with coagulated blood. There was a small quantity of fluid in the lateral ventricles of the brain.

369, Alice Conroy, æt. 26, from a lane chiefly inhabited by prostitutes, admitted on the 23d of

April. She was seized on the 21st, in the evening, with chills, which were speedily followed by a pain in the abdomen which never ceased. Its principal seat was round the navel, and it was so agonizing that she screamed without ceasing during the nights of the 21st and 22d. The abdomen was tumid, especially round the navel; it was very impatient of pressure. She had had no stool; she instantly vomited every thing she swallowed. Her countenance was pale, her neck and breast were covered with petechiæ, her arms and legs were of a livid mottling, and cold. She had great thirst; her pulse was not discoverable, her respiration was 38. I could not discover any herniary tumour. She importuned me so pitifully to have something done for her relief, that I directed the apothecary to open a vein, from which only six ounces of blood were allowed to flow, as she became faint.

Enema terebinthinatum. ℞. *Opii granum, Hydrargyri submuriatis grana quinque, M. f. Bolus sum. tertiis horis.*

Three o'clock. She had passed two stools, consisting almost entirely of blood.

She lingered till the morning of the 24th.

Dissection. A quantity of fœtid gas escaped on opening the cavity of the peritoneum, which contained nearly two pints of dark coloured fluid, like blood mixed with water. The liver had the universally tuberculated structure, which is frequently found

in incorrigible drunkards, who perish in youth. The stomach contained a greenish fluid not unlike fæces, on removing which, however, it appeared perfectly healthy. The jejunum was intensely inflamed throughout its whole extent; about a foot from its commencement it became black; on raising its serous membrane, this dark colour seemed principally in the muscular coat; the mucous membrane was of a deep crimson colour. The intestines at this part contained a fluid nearly as black as ink; advancing towards the ileon the inflammation diminished, the lower part of the ileon was in a state nearly natural. The ascending position of the colon under the liver resembled the jejunum. There was nothing remarkable in the rest of the alimentary canal.

374, Robert Short. This man's case, together with the dissection, has been given in the body of the report v. p. 24. as also the case of

376, Mary Anne M'Mahon, v. p. 21.

426, Catherine Duke was reported to labour under an ague, probably a double tertian, for she had a rigor every day. In a day or two after her admission, the course of her complaint was interrupted, and she appeared to labour under a continued fever. On the 6th day after her admission her chest became oppressed; the bark, which she was taking, was stopped, blue pill with ipecacuan was prescribed, and she was blistered. Her respiration became very laborious,

and she had an oppressive cough. She died on the 10th day after her admission.

429, Peter Doolan, May 7. Had cough all the winter. Had laboured under his present illness for nearly six weeks: headach, oppression at the chest, severe cough, with free expectoration, soreness in the epigastrium, thirst. Brown stripe in the centre of the tongue, edges white. Bowels free: feet cold. Considerably within a period of four hours, and after bottles of warm water had been applied to the feet to remove their coldness, the natural colour of the right leg was changed to purple. P. 116, very small. Resp. 44, laborious. Temp. 98. *Vesicatorum sterno. Pilulæ calomelanos cum Ipecacuanha.*

May 8. Moribund.

446, Thos. Mahony, an exhausted old man; of this man's case we were able to collect but a very imperfect account. There was no one in the house with him during his illness but a little girl, who said that for five weeks he had been in the habit of rambling about the house without any apparent intention, and that being very feeble, he frequently fell to the ground. On admission he complained of headach, and of the state of one of his arms, which was completely paralysed; he affirmed that his bones were all broken; he continued muttering and raving, passing his stools in bed, and he died on the 10th day after admission.

454, Rose Sweetman, was an incorrigible drunkard,

and was brought into the hospital labouring under apoplexy, of which she died in a few hours after the visit.

464, James Goff, May 16, sixth day of fever, P. 104. Resp. 32. Temp. 106°. Flushed countenance; inflamed eyes; brown tongue—dry central line, white edges; thirst. Restless delirium, anxiety, debility; severe pain over the eyes, and in his loins; had been without a stool for three days. *Bolus e calomelane.*

May 17. Four stools. *Pulv. Ipecacuanhæ gra.* xx. *Mist. sennæ cum camphora.*

May 18. Four stools. Pulse 80. Refused his medicine. *Vesicatorium Nuchæ. Vini* ℥ vi.

May 19. Two stools. Refused wine. Resp. 48, and moaning; insensible; extremities comfortably warm; an abundant crop of vesicles with florid edges appeared after the visit of yesterday. *Enema commune.*

May 20. Hands, back, and shoulders of a purple colour; extremities warm.

May 21. Died at eleven, p. m. after an attack of convulsions.

480, Terence O'Neill, May 20, a lunatic, was admitted after an illness of two months; his tongue was white, and he complained of headach and cough.

Resp. 24. Temp. 98°. Pulse 72. He died on the 25th of May. The principal appearances of disease were in the head. There were six or seven ounces of fluid in the ventricles, and a large ossification of the falx.

539, Terence Hanlon, 3d of June; the sixth day of his illness. Countenance flushed; temperature high, skin covered with dun petechiæ; P. 108; vertigo; severe headach and great debility. Oppression of chest, severe cough, with difficult expectoration, tinged with blood. Bowels costive, apex of the tongue florid, base covered with yellow mucus; considerable thirst. *Mitt. Sang. ad* ℥ viii. *Bolus e calomelane.*

June 4. Delirious night, flushing. T. brown and dry. *Abradantur Capilli. Misiura Sennæ cum camphora. Foveantur crura.*

June 5. Very delirious. Three natural stools. Tongue dark and dry, unable to protrude it. P. 120. *Mitt. Sanguis ex arteria Temporali ad* ℥ viii. *Cont. alia.*

June 6. Wandered all night through the wards. One stool. Tongue shrivelled up and black. Feet and legs beset with purple petechiæ. *Bolus e calomelane. Vesicatorium nuchæ.*

June 7. Only one stool. Muttering delirium, restlessness, subsultus, floccitation. *Misturæ Purgantis* ℥ i. *tertiis horis. Enema. Vini.* ℥ iv.

June 8. Three inconsiderable motions. Flushing. Subsultus to a great extent; refused wine: P. 116; R. 38; Temp. 95°. *Porter or Punch. Bolus e calomelane sextis horis; Vesicatoria suris. Enema.*

June 9. Large fœtid discharges from his bowels; less subsultus. Spit out the porter. P. 120; Resp. 40; Temp. 97°, *Punch.*

June 10. Died about 9 o'clock, a. m.

Dissection. On raising the dura mater we found that effusion had taken place between the arachnoid membrane and pia mater. Towards the back part of the left hemisphere, and at the anterior part of both hemispheres, the pia mater was highly inflamed. The ventricles contained between three and four ounces of fluid. The plexus choroides was rather more pale than usual. The pia mater covering the pons varolii was unusually vascular. There was no distinct appearance of recent disease in any other part of the body.

550, Cromwell Coghlan, June 4. Admitted on the evening of the 3d June, in the fifth day of his illness. He then complained of a stitch in his left side; troublesome cough; great debility and thirst; tongue brown in the centre; pulse 120; resp. 32. He had been let blood, and had taken purgatives with relief before admission. In the course of the night he had two stools. He complained of pain in the left side; he was pale, with sunken eyes; had short oppressed cough, rapid and small pulse. He died in the course of the evening.

568, Laurence Harris. This man's case is related at p. 27.

634, Patrick Tynan, June 24. Admitted in the evening of the 23d, from a house in which there were several persons in fever. He wandered about the wards in a state of restless delirium. Tongue blackish brown; eyes suffused, countenance flushed, subsultus tendinum; skin covered with florid petechiæ, legs and hands cold and livid; right leg purple; he fell into a state of stupor in the night, and died in the course of the morning of the 25th.

640, Patrick M'Coote, June 27th. Had been about a fortnight sick, when he was admitted into the hospital. He had previously been affected with a cough and oppression of the chest. Pain and soreness at the scrobiculus cordis; cough and expectoration of mucus mixed with blood; nausea, vomiting; severe headach, restlessness, lassitude and debility. *Mitt. Sanguis ad* ℥x. *Vesicatorium Epigastrio.* ℞ *Pilulæ Hydrargyri, Pulveris Ipecacuanhæ compositi, aa drachmam dimidiam. f. Pil. duodecim. sumat. unam quartis horis.*

June 28. Relief after blood-letting; four stools; pulse 100 and hard; is unable to lie down in bed. *Mitt. Sanguis ad* ℥xii. *Cont. Pil.*

June 29. Relief after blood-letting. Mucous vomiting; pain in the course of the sternum aggravated by coughing. *Mitt. Sanguis. Vesicatorium Sterno. Cont. Pil.*

June 30th. Vomiting continued. *Solutio sulphatis magnesiæ in infuso rosæ. Haustus salinus.*

July 1. Four stools. Load and oppression in the whole course of the sternum. *Pil. Hydrarg. grana quinque, h. s. Haustus purgans primo mane.*

July 2. Weak and desponding; bowels free; *Vesicatorium inter scapulas.* ℞. *Mist. Camphoræ unciam, Tinct. opii camphoratæ semidrachmam. m. f. haustus, quartis horis sumendus.*

July 3. Great languor, debility and depression of mind. Lethargic; pulse 80; return of sickness. ℞ *opii grana duo, calomelanos grana duodecim, conservæ Rosæ q. s. f. pilulæ sex. sumat unam quartis horis.*

July 4. While at the night chair, he was seized with convulsions, and died in a few minutes.

Dissection. Liver, which appeared large, was in a state of biliary and sanguineous congestion. Stomach, which was distended with gas, contained a small quantity of fluid, of an inky colour, mixed with mucus. The stomach was flabby and uncontracted; its mucous membrane thickened, florid, from innumerable points of extravasation, and coated with a very tenacious mucus,—opake and yellow. The

inflammation of the mucous membrane extended to the duodenum, jejunum, and some parts of the ileum, the lower part especially. Some of the intermediate parts were sound. The small intestines, although in general dilated, were in some parts very remarkably contracted. The trachea was full of frothy mucus, its mucous membrane was slightly inflamed. There were several pints of serum in the right cavity of the pleura.

741, Catherine Farrell, July 21st. Seventh day of her illness, which she attributes to cold. Temp. 103°. Skin dry; much flushed. Tongue dry, and coated with yellowish mucus, thirst, foul taste; stitch in the right side, oppression at the heart, laborious respiration, cough and expectoration tinged with blood; severe headach, restlessness and debility. *Mitt. Sang. ad* ℥ x, *Mist.* & *Pilulæ purgantes.*

July 22. Bowels free. Pain of side, and oppression at the heart. Expectoration free. ℞. *Pilulæ Hydrargyri* ʒss, *Pulveris Ipecacuanhæ grana octo, f. Pilulæ duodecim; Sumat unam 4tis horis.*

July 23. Three stools. Temp. 104°. Respiration heaving; some expectoration, which was bloody. Tongue much loaded, with livid edges. *Mitt. Sanguis. Vesicatorium amplum Pectori. Cont. Pilulæ.*

July 24. Considerable relief after blood-letting. Blood sizy. Temp. 104°. *Cont. Pilulæ. Mist. Camphoræ cum tinctura opii camphorata.*

July 25. *Mitt. Sanguis ad* ℥x. *Vesicatorium inter scapulas.*

July 26. Blood sizy. Bowels free; respiration improved. *Cont.*

July 27. She was reported to have become suddenly yellow about two o'clock yesterday; in the evening, the breathing being much oppressed, she was let blood, by the apothecary, to the amount of eight ounces. Blood cupped and buffed. She died about two o'clock in the morning.

Dissection. Thirty-two hours after death. On cutting into the cavity of the thorax, the lungs did not recede. The left lung was free from any adhesions, and was perfectly sound. The right lung, throughout the greatest extent of its convex surface, was adherent to the parietes, partly by long filaments, but chiefly by a close connexion. The adherent pleuræ were thickened and opake. The upper third of the lung was healthy, the remaining portion was firm and incompressible like liver; there was a distinct division between the two portions of lung, the sound portion terminating as abruptly as the diseased commenced. The disease seemed to consist in an increase of the solid substance of the lung: its colour grey, with dirty yellow intermixed. Fluid of the appearance of pus could be expressed from the divided bronchiæ. The diseased part of the lungs sank rapidly in water. No diseased appear-

ance was discoverable in the brain. The abdominal viscera were sound.

761, Patrick Lunney, 26th July. Eight days ago he incautiously lay down on the ground in the evening, and continued there for a considerable time; in half an hour after getting up he had a rigor, which was followed by pain across the breast and severe headach. He had flushing of face, and inflamed eyes; cough; dry tongue with florid edges. Pulse 120. Temp. 102°. measly efflorescence all over the skin. Bowels free. *Mitt. Sang. ad* ℥x.*

July 27th. Temp. 106°. Inflamed eyes. Hard cough and soreness of the chest. Vomiting of bright bile, and epigastric tenderness. *Vesicatorium pectori. Solutio sulphatis magnesiæ in infuso Rosæ.*

July 28th. Temp. 105°.

July 29th. Four stools. Pulse 82, and very irregular. Temp. 103°. Resp. 44. laborious; dry cough; tongue dry; supine; great debility. *Bolus e calomelane. Vini* ℥vi. *Fov. crura.* †

* This is one of the patients in whom the temperature rose after bleeding. The following are the particulars of the experiment:

July 26. 12 o'clock. Temp. 102°.
Arm tied up, and ten ounces of blood quickly taken away.
10 m. p. 12. Temp. 102°.
¼ p. 12 103°.
40 m. p. 1 105°.

† There is a note made after this day's report, of which the following is a copy:

July 30. Pulse so weak and irregular as not to be countable. Respiration laborious and frequent. Tongue moister; extreme debility. *Cont.*

July 31st. Death in the morning.

Dissection. Serum of a reddish colour issued from under the dura mater. There were several bright red patches, which arose from an increase of vascularity of the pia mater on the surface of the brain. The brain was firm. With the exception of about two ounces of fluid in the pericardium, every thing appeared natural in the thorax. The liver was soft in texture, easily torn, and of a brown colour. There was a broad and firm adhesion of the arch of the colon to the concave surface of its right lobe. The rest of the abdominal viscera appeared healthy.

794, Matthew Lawler. No account could be obtained of this man's illness. When admitted on the 2d of August, he was in a state of low muttering delirium. He was affected with singultus. His pulse was intermitting and thready. His complexion dusky red. He died on the morning of the 3d.

Dissection. Under the pia mater, which covered the inferior half of the left hemisphere of the brain,

5 minutes after taking 2oz. wine. Temp. 105°
15 minutes after 105½
30 minutes after 105°

by which it should seem that 2 oz. of port wine had raised the temperature 2 degrees.

there was a very thin layer of effused blood in a fluid state. The pia mater corresponding was of a bright red colour. There were numerous patches of the same colour on the pia mater, covering the right hemisphere. The tunica arachnoides, between the convolutions, was thickened and opake. The substance of the brain was very firm. The whole of the convex surface of the right lung adhered to the pleura. There was increased vascularity of the mucous membrane of the stomach in patches and minute dots, some dark, others bright red; giving an ecchymosed appearance to its inner surface, which was coated with tenacious mucus. A similar appearance was observable in the ileon.

893, Mary Malone, August 4. The 10th day of her illness; face flushed, eyes suffused; tongue very florid, with a brown stripe. Temp. 103°. Pulse 180. Resp. 60, moaning. Some florid petechiæ. Had no stool for four days, during which period she had been in a state of delirium, and great restlessness. Upon examination, there were found large purple patches on her hips and sacrum. She came from the same house with Cosgrave in No. 3.

August 6. Very delirious; cannot protrude her tongue, nor articulate. Large purple patches on the legs, pulse indistinct, but very rapid, constant moaning. Refuses all medicine, and will not drink any thing but water.

August 7. Involuntary stools; breathing very

rapid; subsultus; livid patches on her feet. Temp. 104°. Drinks punch.

August 8. Death in the night.

Dissection. Arachnoid membrane between the convolutions of the brain was much thickened and opake, and contained under it a gelatinous substance. The pia mater was very vascular; in several places there were dark red patches, which seemed to be produced by extravasation, as vessels could not be distinguished. There was no blood between the membrane and the brain at those places. The veins between the convolutions of the brain were distended with blood; the texture of the brain was rather firmer than usual; there was scarcely any fluid in the ventricles. No diseased appearances were discoverable in the viscera of the thorax or abdomen, save a few arborescent patches of the small veins of the mucous membrane of the stomach.

829, John Aungier. A worn-out man, who, from being in comfortable circumstances, had fallen into poverty. August 11th. He had been ill about a fortnight; slept well; had no complaint but weakness. Tongue moist, covered with cream-coloured mucus; no thirst; bowels confined. *Pilulæ Purgantes. Mistura Purgans.*

August 12. Four involuntary stools. Measly efflorescence of the skin; tongue black and dry;

some cough. *Vesicatorium Pectori. Vini* ℥iv. *Mistura Sennæ cum Camphora.*

August 13. Doses much. Three involuntary stools. Involuntary urine. *Fov. Crura. Mist. Camphoræ cum Aqua Ammoniæ acetatis. Vini* ℥vi.

August 15. Coughed and retched all night. Tongue dry and brown. Epigastric tenderness; great debility. *Vesicatorium Epigastrio. Vini* ℥vi.

August 16. After a miserably restless night, a large parotid was discovered this morning on the right side. Pulse feeble and intermitting. Extremities cold; moans much. *Fov. Crura. Haustus Anodynus.*

August 17. Death.

Dissection. On cutting into the tumour it was found to be very vascular; the granules composing the parotid gland were much enlarged, and firmer in their texture than natural, and seemed separated from each other by distinct filaments derived from the capsule of the gland, which was remarkably distinct aud firm.

1004, Catharine Cunningham, Sept. 6. Had great headach, oppression of the chest, cough, tongue white and moist.

Sept. 8. Severe headach. *Abrad. Capilli. Mist. Sennæ et Camphora.*

Sept. 14. Convalescent. Full diet.

Sept. 16. After dinner a sudden attack of severe pain in the bowels, followed by mucous and bloody stools.

Sept. 17. Almost uninterrupted vomiting; very great pain in the abdomen.

Dec. 3. Death from unconquerable dysentery.

Mary Kelly, Sept. 7. This patient during her convalescence, was attacked with a painful œdematous swelling of the right leg and thigh, like phlegmasia dolens, which was by no means uncommon after fever, and it was attended by a dysenteric affection, of which she died. This patient's name does not appear in the registry, she having been a deputy nurse of the ward in which she died.

1147. Alexander Graham was brought into the hospital in a dying state, and expired some hours before the visit.

1237, Michael Magee, when admitted into the hospital, had inflammation of the penis, with ulcers under the prepuce, but being in a state of complete fatuity, we could not obtain any history of his complaint. The inflammation terminated in sloughing of the penis, which he survived only two days.

1245. Dennis Maeguire was an emaciated, ex-

hausted man; he had a severe cough, and was unable to expectorate. He was a subject for palliatives merely.

1510. Simon Taylor. Five of this man's family were in fever. Oct. 13th, eighth day of illness. Three stools since his admission. He was pale, felt cold and weak; tongue dry and red in the centre; edges moist, covered with cream coloured mucus; foul taste; some epigastric tenderness; deaf; averse to light; complained of pains in his eye-balls; slight cough. P. 112. R. 28. T. 103°. *Mist. sennæ cum Camphora.*

Oct. 15. Epigastric tenderness. *Hirudines oc. to Epigastrio. Solutio Sulphatis Magnesiæ.*

Oct. 16. Great stupor and deafness, with much debility; cough, with free expectoration of pale yellow mucus. Pulse 140, Resp. 40, and laborious. *Pulv. Ipecacuanhæ gra.* xx. *Vesicatorium inter Scapulas. Vini* ℥iv.

Oct. 17. Vomited whitish mucous matter. One stool. Stupor; deafness; cold feet; pulse 120. *Vesicatorium Capiti. Fov. Crura. Mist. Sennæ Camphorata. Vini* ℥vi.

Oct. 18. One stool. Moaned and raved for about two hours; slept the rest of the night. Great deafness. Tongue covered with a dry brown crust. Pulse 132. *Vini* ℥viii. *Contr. alia.*

Oct. 19. Three stools. Slept pretty well. Incoherent; tongue covered with a dry black crust; protruded with difficulty, and not drawn in till repeatedly desired. *Contr.*

Oct. 20. Three stools. Supine. Muttering delirium. Pulse 124. Refuses every thing but the wine. *Vini* ℥x. *Vesicatoria suris.*

Oct. 21. Three stools. Raved all night. Cough without the power of expectoration. Considerable epigastric tenderness. Sighing. Pulse 124; feeble. Resp. 23. Cold extremities.

Oct. 22. Subsultus. Black crust on the gums and lips. Surface of the body cold. Pulse indistinct. Many flies settle upon him.

Oct. 23. Death.

Dissection.—Not permitted.

1633. Andrew Lalor, an infirm man, with all the appearance of age. Oct. 20, 7th day of fever. Much tenderness of the epigastrium. *V. S. ad* ℥viii.

Oct. 22. Tenderness of the epigastrium not relieved. *Hirudines* x. *et Vesicatorium.*

Oct. 24. Two stools. Pulse 88; intermitting. Loose cough; tremors; subsultus; vertigo; incoherent delirium. Tongue covered with a dry brown crust.

Oct. 26. Very uneasy night. Tongue covered with a dry black crust; protruded with difficulty. Tremulous motion of the inferior maxilla. Subsultus; moaning; pulse 108,—intermitting. Slight cough.

Oct. 27. Two stools. Supine; muttering. Pulse 120; laborious respiration (60). Tenderness of the epigastrium. Swelling of the right parotid gland.

Oct. 28. Death.

Dissection.—Not permitted.

1666. Cecily Fay, æt. 36, Oct. 22. 7th day of her fever. No stool for twenty-one days; one since admission. Pulse 120. Resp. 40. Countenance livid; eyes inflamed; headach; thirst; tongue with a black crust in the centre. Gums and lips covered with black sordes. Great debility. On admission her feet were cold and livid; they are now of a natural heat.

Oct. 24. Three involuntary stools. Tongue with a black crust. Debility. Short, hurried and moaning respiration (60) P. 128.

2 o'clock. Face quite black. *Mitt. Sang. ad* ℥viii. *ex Art. Temporali.*

The blood was taken in two cups; that in the first separated into serum and crassamentum, which was buffed and cupped; that in the second was uniformly coagulated, and but little serum exuded from the coagulum, which was without size.

Oct. 25. Very restless night. Moaning, laborious respiration, countenance and nails livid; unable to protrude her tongue. She died at two o'clock, p. m.

Dissection.—The sinuses of the dura mater were full of blood in a fluid state. On slitting round, and elevating the dura mater, there issued a reddish fluid in quantity about two drachms. On each convex surface of the cerebrum there were large patches of a deep red colour, and numerous smaller ones presented themselves; they appeared to be produced by extravasated blood, but on elevating carefully the pia mater, none was found between that membrane and the surface of the cerebrum, the appearance being caused by a great increase of the natural vascularity of the pia mater, and by the contiguous capillary vessels being injected with blood. The arachnoid membrane was unaltered. The brain was remarkably firm; its sections shewed an increase of vascularity. There was no fluid in the ventricles. No appearance of disease could be detected in the viscera of the thorax or abdomen.

1710, Eliza Loftus. This was a case of fever supervening upon dysentery. Admitted on the 25th of October.

Oct. 29. Slight headach, increasing at night; general pains; skin hot and dry; thirst; stools rather less frequent, still mixed with blood; pulse 86.

Nov. 8. The diarrhœa had returned again. Frequent stools with griping. Much debility. Sensation of internal heat. Tongue preternaturally red and dry.

Nov. 11. Frequent pain in the bowels. Abdomen tender on pressure. White fur at the base of the tongue which is red and dry at the apex. Belly rather confined. General pains. Some retching. Considerable weakness and appearance of great distress. Pulse scarcely to be felt.

Nov. 13. Death.

Dissection.—Two pints of an opaque yellowish fluid in the cavity of the abdomen. Numerous adhesions of the intestines to the peritoneum. The peritoneum red and marbled; its texture thickened, and its surface covered with a layer of coagulable lymph, which could be easily torn off. Some portions of the omentum were thick, fleshy and red. The intestines, adherent by means of a thick layer of coagulable lymph, formed, as it were, one single mass.

The mesentery was red and much increased in thickness,—equal in some places to the fleshy portion of the diaphragm. The surface was also covered with coagulable lymph. The mucous membrane of the ileum was highly inflamed for the extent of twenty inches, beginning at a foot from its termination in the cœcum. The increased vascularity was more observable on the valvulæ than in their intervals. In the inner surface of the sigmoid flexure, where it terminates in the rectum, there were many red blotches. The whole surface of this portion of the colon was of a light red colour. The right lobe of the liver was larger than natural; it was easily lacerated. The gall-bladder contained about two hundred calculi of a yellow colour, with angular surfaces, and very friable. The thoracic viscera were sound.

1743, Jane Ryan. This patient was far advanced in consumption, and died of colliquative diarrhœa.

1877, James Reilly. Died on the morning after he was admitted, and before I saw him.

2021, Hugh Reilly. Admitted on the 18th of November, on the 7th day of illness. Nov. 21, headach; eyes suffused; delirious for the last two days; great debility; skin covered with dun petechiæ, and jaundiced; tongue with a brown fur; much thirst; belly loose; tenderness in the right hypochondrium; cough; pulse 136. *Misturæ Sennæ*

cum Camphora uncias sex, Tinct. Opii Camphoratæ drachmas. iii. *m. Sumat unciam quartis horis. Vesicatorium inter Scapulas. Fov. crura.*

Oct. 22. Delirious all night; sleep at intervals; belly loose; some degree of tympany; urine and stools yellow; pulse 100. *Haustus Olei Ricini cum Oleo Terebinthinæ. Cont. Mist.*

Oct. 23. Stools more natural. Abdomen less swelled. Pulse 92. *Cont. Mistura.*

Oct. 24, Violently delirious all night. Urine and stools less yellow.

Oct. 25. Became suddenly worse last night. Fell into a state of stupor and insensibility. *Bolus e Calomelane. Vesicatorii Suris. Vini.* ℥vi. *Mist. Camph. Unciam, Sp. Æth. Oleosi. gutt.* xv. *4tis horis.*

Oct. 28. Death in the evening of the 27th.

Dissection.—The liver small, especially the right lobe; it was studded with small brown tubercles, hard in substance, and of a dirty brown colour. There was a small quantity of black bile in the gall bladder. The stomach was small, contracted, and nearly empty. The contents of the duodenum and a great part of the jejunum were of a deep yellowish brown; then they became of a bright yellow; brown again at the end of the ileum, and lastly, of a dark brown

in the colon, and consistent, and towards the rectum almost black. The spleen four times its natural size. All the veins in the abdomen were large. The heart and lungs were sound. There was a greater degree of vascularity than natural on the surface of the brain, and some aqueous effusion between the arachnoid and pia mater: these membranes were found thicker, more firm and opake than in their sound state. A small quantity of blood was effused into the ventricles, the sides of which were very vascular.

2055, Anne Keane, admitted on the 20th Nov. on the 7th day of her illness. Nov. 21st, severe headach, singing in her ears; much debility and febrile anxiety. Epigastrium very tender; tongue covered with a dry brown crust, great thirst; belly regular; stools, urine, and skin of a deep yellow; skin hot; severe general pains. *Abradantur Capilli. Hirudines octo Epigastrio. Solutio sulphatis Magnesiæ in infuso rosæ.*

Dec. 1st. She became delirious on the morning of the 30th of November, and continued so till evening, when she fell into a state of insensibility. She sweated profusely in the night; the sweat was neither cold nor clammy, and there was no previous tremor. She died this morning. Previous to the 30th no symptom occurred which indicated immediate danger, but she was in a state of great debility. The nurse of the ward, volunteering an opinion, said, that "she died in the cool, not having strength to throw it out."

DISSECTION. The viscera of the abdomen appeared sound; the biliary ducts were very large; the stomach contained a greenish yellow fluid, which was curdled; that in the duodenum was more viscid, and of a deep orange colour; the fluid contents were of a bright yellow colour in the jejunum, at the termination of which they approached in colour to bile; the contents of the large intestines were of a dark brown; the yellow fluid in the small intestines tinged water like bile. The mucous surface of the stomach was unusually vascular; it was of a dusky red colour, and mottled appearance, particularly in the left extremity and small curvature, but in dissecting off the membrane it did not appear thickened or otherwise diseased; the liver was soft and flabby, not of its usual firm and brittle texture; the gall bladder contained very fluid bile. There was increased vascularity of the surface of the brain; the veins being turgid and dark, the small vessels much injected and florid; there was a considerable quantity of serum under the arachnoid, which, with the pia mater, was thickened, firm and opake. A section of the cerebral substance presented a considerable number of bloody dots. The ventricles were filled with serum, but not enlarged. There was no unusual vascularity of their sides, the plexus choroides was pale and small.

2059, Elizabeth Hearne, Nov. 22. Eleventh day of fever. In a state of violent delirium: hallucinations; Did not answer questions; subsultus tendinum. She sweated profusely last night after a rigor; more

quiet since. Bowels free, P. 132. *Mist. sennæ cum camphora & Tinct. opii camphoratæ.*

Nov. 23. Bowels confined; more composed; raved at times, but was not violent; slept a good deal; she was in general insensible. She sweated profusely last night. Pulse indistinct and irregular; subsultus; tremor. *Bolus Calomelanos. Vini* ʒiv.

Nov. 24. One involuntary motion; delirious and violent all night. On the evening of the 23d, affected with rigor, which still continues; debility. *Vesicatorium capiti. Cont. Mist.*

Nov 25. Death.

DISSECTION. This woman was of low stature, thin and emaciated. The surface of the brain was florid and very vascular. There were large red patches on the sides of the hemispheres, which arose from effusion of blood under the pia mater. The section of the brain presented a number of red spots, some of them very large. The ventricles contained a small quantity of serum, which was tinged with blood.

The viscera of the thorax and abdomen were healthy.

2215. Edward Martin. This boy's was a case not of fever, but of dysentery, which resisted all the usual remedies.

2216, Philip Mills, Dec. 4. Tenth day of illness. Two stools. Severe headach, redness and suffusion of the eyes, anxiety and wildness of expression; low muttering delirium. Pulse 60. There came out dun petechiæ on the 3d Dec. on which day also the low delirium was first observed, and his thirst abated. Tongue moist, with a thick white fur. *Vesicat. capiti. Fov. crura. Bolus calomelanos cum opio, 6tis horis.*

Dec. 5th. Two stools; supine; in a state of stupor; livid cadaverous complexion; great debility. Tongue dry, brown, and with difficulty protruded. The petechiæ had spread; they were purple, and very thick on the back. Pulse not more than 80, indistinct, very weak; subsultus. *Cont. Boli & Vinum.*

Dec. 6. Involuntary stools. Muttering delirium; tremulous motion of the mouth. Convulsive twitchings of the eyelids; cold clammy sweat. Tongue and lips covered with black sordes. *Vesicatoria suris. Cont.*

Dec. 7. Death.

2295. Arthur Magee, Dec. 7. Seventh day of his illness. Oppression of breathing, pain in the chest, cough. *Mitt. Sang. Vesicatorium inter scapulas. Pilulæ calomelanos cum ipecacuanha.*

Dec. 9. Bilious vomiting; nausea; very bad

taste; abdomen tender on pressure. Tongue covered with a thick white fur. *Hirudines* viii. *Epigastrio. Vesicatorium circa umbilicum. Tart. sodæ & Kali* ʒi. *4tis horis, e cyatho juris.*

Dec. 10. Bowels free. Bitter taste, nausea and bilious vomiting; hiccup; skin of a yellow tinge; great prostration; stupor, with expressions of febrile anxiety; some pain in the chest; slight cough. *Vini* ℥iv. *Pil. opii cum calomelane.*

Dec. 12. Pulse 98. The vomiting and hiccup had ceased. Slept well; feels stronger; complained of pain about the ensiform cartilage and a sense of suffocation; severe cough with expectoration.

Dec. 13. Great debility; cough; slept well; P. 110. *Vini* ℥iv. *Mist. Camph. cum Tinct. opii Camph. Oranges.*

Dec. 13. Bowels confined. Pulse 98. Cough. Debility was not increasing. Tongue covered with dry brown fur; gums black. *Vesicatorium Pectori. Bolus e Calomelane.* ℞. *Decocti senekæ* ℥vi. *Tinct. opii camphoratæ* ʒiii *Sacch.* ʒii. *s.* ℥i. *4tis horis. Cont. alia.*

Dec. 16. Bowels confined; slept well; complained much of the cough, which came on by paroxysms, and was attended with expectoration; insufferable taste; tongue moister; gums and lips covered with sordes; slept well, and was rather

gaining strength. *Rep. Bolus. Enema vesperi. Vini* ʒviii. *Cont. Mist.*

Dec. 17. Slept ill; large involuntary stools; much weaker; cadaverous expression; pulse 112, small; cough, &c. *Mist. Cretæ* ℥vss. *Tincturæ opii* ʒi. *Vini Ipecac.* ʒiii. *m.* ℥ss. *post sedes liqs.*

Dec. 18. The Diarrhœa had ceased; felt strong, and slept well. *Cont. Vinum. Pulv. Ipec. comp. gr.* viii. *h. s.*

Dec. 19. Two involuntary stools; vomited his food this morning; less expectoration; tongue brown and dry. P. 116. *Cont.*

Dec. 20. Pulse indistinct. resp. 46; extreme weakness.

Died in the night.

Dissection. Fluid under the dura mater; arachnoid thickened and opake: under it an effusion of a yellowish serous fluid; increase of vascularity of the pia mater. On removing the brain there issued a considerable quantity of serum from the spinal canal. A reddish fluid which seemed a mixture of mucus and pus escaped on cutting into the substance of the lungs; the cellular structure of the lungs was filled with a serous fluid. Gall-bladder distended with dark bile; a considerable increase of vascularity of the mucous coat of the stomach,—the vessels arborescent;

the mucous follicles were enlarged, the membrane was covered with a viscid gelatinous substance; no disease discoverable in the mucous membrane of the intestines.

2631. Eliza Willis. Dec. 21. Fifth day of her illness. Bowels free; P. 128; tongue white; some epigastric tenderness; headach; sighing. *Mixtura Salina effervescens.*

Dec. 30. Several stools, with abdominal tenderness. *V. S. ad* ʒviii.

Dec. 31. Four stools; P. quick; tongue white; skin hot; no tenderness of abdomen. ℞ *Misturæ Cretæ* ℥vss. *Tinct. Opii.* ʒi. *Vini Ipecac.* ʒiii. *m. s.* ℥ss. *post. sedes liquidas.*

Jan. 2. Stools bloody; debility; pulse small and quick, respiration hurried. *V. S. ad.* ℥x. *Pulv. Ipec. Comp. gr.* x. *sextis horis.*

Jan. 3. Many bloody stools; abdominal tenderness; respiration laborious; voice hoarse; P. small and indistinct. *Cont. Pulv. Ipec. Comp.*

Jan. 4. Death.

Dissection. A great quantity of serous effusion beneath the arachnoid, separating the membranes; the arachnoid very strong and opake. The mucous membrane of the stomach pulpy and of an

uniform bright red colour. The mucous membrane of the small intestines exhibited the same appearances.

2763. Anne Mooney, Dec. 29. Ninth day of her fever; great headach; deafness; tongue white and moist; severe cough and hoarseness. *Vesicatorium sterno. Abradantur Capilli. Fov. Crura. Pilulæ Ipecac. cum Calomelane.*

Dec. 30. Several stools; cough easier; flushing. *Mistura Mucilag.*

Jan. 1818. Four motions; deafness continues with headach; P. 140; flushing; hoarse voice. Tongue white and moist. *Mitt. Sang. ex Art Temp. ad ℥vi. Vesicatorium Nuchæ. Fov. Crura. Cont. Pil.*

Jan. 2. Resp. 36, laborious; some cough; bowels free; P. small and indistinct.

Jan. 3. death.

Dissection. The dura mater was very adherent to the bone, and vascular on its outer surface. Extravasations of blood observable on several portions of the pia mater; its vessels were large and numerous; much serous effusion under the arachnoid, which was thick, opake, and strong. The substance of the brain was uncommonly tough.

1192, Eliza Dempsey; and,

1415, Thomas Evans. These patients both died in a few hours after they were admitted into the Hospital.

After the foregoing pages were written, it occurred to me that the morbid anatomy of this great epidemic might be rendered still more complete. I therefore obtained a copy of most of the dissections which were made in our Hospital, together with the cases, and I requested Mr. Crawford to reduce the whole to a tabular form, which he has done, with his characteristic accuracy and ability.

Judging from the following Table, it will appear that icteroid fever was more frequent than was actually the case, and hence, it is necessary to observe that, at my request, every opportunity was taken of examining the bodies of such patients as became jaundiced in the course of their illness.

*** By H. which the reader will observe in many of the spaces, it is meant to intimate that the viscera had a healthy appearance.

MORBID APPEARANCES AFTER DEATH.

NAME.	Date of death and illness.	SYMPTOMS.	HEAD.	CHEST.	ABDOMEN.	REMARKS.
Rolfe, (Joseph) æt. 65.	1827 Oct. 14, on the 12th day of his illness.	Severe general pains in the beginning, which gradually subsided; very little headach; delirium suddenly set in on the tenth day, and on the eleventh tremors, subsultus and incoherence.	Considerable serous effusion under the arachnoid; some in the ventricles. Thickening and opacity of the arachnoid; inflammation of the pia mater; increased vascularity of the whole brain.	H.	H.	Had been in the habit of using spirituous liquors to excess.
Kelly, Michael æt. 9.	Oct. 1 on the 16th day.	On the sixth day, severe headach, flushing, epigastric tenderness, laboured breathing, fluid petechiæ on the 8th. The headach and epigastric tenderness continued till the 10th; on the 13th the mouth very sore; great prostration of strength, stupor.	Under the arachnoid on each side of the hemispheres a thin layer of fluid blood, which could be moved by pressure; also under the arachnoid on the anterior lobes of the cerebrum a gelatinous effusion; the pia mater somewhat increased in vascularity; two ounces of fluid in the ventricles. Substance of the brain firm.	H.	Mucous membrane of the cæcum and right portion of the transverse arch of the colon of a uniform scarlet colour; several small granular eminences of the same appearance.	This boy died under the influence of mercury.
Sims, (Betty) æt. 50.	Nov. 28.	When admitted, in a state of stupor and insensibility; some delirium in the night; eyes very red and suffused; no flushing of the face; made no complaint; extreme debility; thickly covered with purple petechiæ; died two days after her admission.	Increased vascularity of the surface of the brain; veins very turgid, some effusion in the ventricles and under the arachnoid; that membrane thick, opaque, and firm; the vessels on the sides of the ventricles large and distended.	H.	H.	

Brennan, (Nancy)	Nov. 30, on the 20th day.	Seized at first with rigor, pain in the back, loss of sleep and of appetite, and occasional delirium; was not confined to bed during the first week of her illness. The delirium increased to a state of high maniacal excitement, which was aggravated by coercion; face highly flushed, tongue with a thick black fur; sordes on the teeth; profuse general sweats; she continued frantic and her strength gradually sunk.	High degree of vascularity of the surface of the brain; veins loaded with blood, small arterial vessels very minutely injected; numerous patches of bright red which arose from extravasation of blood in the pia mater.	H.	H.	A year before this illness she had been maniacal for six months; naturally of a passionate temper.
Ralph, (John) æt. 65.	Dec. 4, on the 13th or 14th day.	During the first days of illness a state of high general fever without any local affection. On the 6th or 7th day dyspnœa, which gradually increased. On the 13th or 14th, aggravation of all the symptoms, orthopnœa and death.	The ventricles filled with serous fluid; a great quantity under the arachnoid, and between the convolutions of the brain. The arachnoid thickened and opaque, the veins very turgid.	Effusion of serum in the right side of the chest; the pleura of that side highly inflamed, its thickness increased by the deposition of coagulable lymph forming a new membrane and numerous adhesions. The mucous coat of the trachiæ and bronchia of a deep red colour. Increased vascularity of both lungs, and considerable interstitial effusion. A great number of small abscesses in the left lung.	The spleen unusually soft.	Had been in the habit of using spirituous liquors in excess.
A. B. æt. 16.	Dec. 6, on the 3th day.	At the beginning of the illness headach, stupor, considerable purple mottling; very great tenderness of the epigastrium on pressure; fullness of the abdomen, pulse rapid and weak, much prostration of strength. Pain in the epigastric region was the most urgent symptom, and continued almost to the last.	Serum effused under the arachnoid and into the ventricles; the vessels of the brain unusually loaded with blood.	H.	The external superior surface of the stomach of a bright red; that of the duodenum darker than usual and more vascular. The internal surface of the stomach smeared over with a dark brown tenacious matter; the mucous membrane very red, covered with numerous small red dots and patches; unusually thickened, and its vascularity increased; the muscular coat partook of these appearances; the internal surface of the duodenum of a brick red colour, covered with a chocolate like fluid tinged with blood; its coat thickened.	An Idiot, and of a phlegmatic temperament.

NAME.	Date of death and illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
Boyle, (John) æt. 50.	1817 Dec. 13.	Considerable degree of stupor, breathing laboured, heaving; epigastrium extremely tender on pressure; countenance of a livid colour, pulse indistinct, tongue rough and dry, could give no account of himself. Died on the day of admission.	Veins distended with blood, water in the ventricles and under the arachnoid; that membrane thick and opaque.	Lungs unusually vascular, a considerable quantity of serous fluid effused into their substance; the mucous membrane inflamed, the bronchial tubes filled with mucus.	The mucous membrane lining the left extremity of the stomach inflamed; the liver soft and flabby.	
Carroll, (Margaret) æt. 15.	Dec. 29, on the 12th day.	Much headach from the beginning, succeeded by stupor; great tenderness in the epigastric region, which was attended at first with nausea and vomiting, and continued until the day before her death; considerable debility and febrile anxiety throughout; strabismus twelve hours before death.	Some water effused under the arachnoid and in small quantity into the ventricles; a few patches of extravasation of blood in the pia mater, the arachnoid firm and thickened.	H.	General blush of a bright red on the internal surface of the stomach, principally at the great extremity, numerous red dots, some very large, increased thickness of the mucous coat; the same appearances in the duodenum where the mucous follicles appeared considerably enlarged.	
Nevin, (Mary) æt. 60.	1818 Jan. 5, on the 11th day.	Difficult breathing, cough, epigastric tenderness, furred tongue, and pulse a little increased in frequency, were the chief symptoms; the epigastric tenderness subsided on the tenth day, but the dyspnoea and cough continued and soon became aggravated.	Substance of the brain unusually firm, considerable increase of vascularity of the pia mater, a few red patches on the sides of the cerebrum, some thickening and opacity of the arachnoid, a small quantity of serous fluid in the sac of that membrane, and some between the convolutions.	H.	H.	

NAME.	Date of death and illness.	SYMPTOMS.	HEAD.	CHEST.	ABDOMEN.	REMARKS.
Correll, (Maurice) æt. 32.	Jan. 11, on the 9th day.	Some headach at first, soon followed by the most violent delirium; constant raving, incoherent replies, some flushing, eyes suffused, pulse rapid and weak. On the seventh day numerous dun coloured and large petechiæ appeared, and the skin became cool. On the eighth day he seemed rather better, and on the ninth, after a violent return of delirium, he suddenly fell into an apoplectic state and died.	About three ounces of water in the sac of the arachnoid, the pia mater on the cerebellum considerably thickened by extravasated blood, the pia mater on the cerebrum much inflamed; a moderate quantity of reddish fluid in the ventricles, their walls unusually vascular, the substance of the brain very firm.	Not examined.	Not examined.	
Hogan, (Edward) æt. 24.	Jan. 18, on the 7th day.	The illness began with severe headach and cough, flushing of the face, increased heat, very frequent pulse; on the headach being relieved, considerable stupor ensued, the cough continued severe, but without much dyspnœa; great prostration of strength took place, then coma and death.	A small quantity of water in the sac of the arachnoid; slight thickening and opacity of this membrane, increased vascularity of the pia mater, the ventricles filled with serum.	Numerous firm adhesions between the pleuræ, the lungs sound in their external appearance, but their texture rather firm; stuffed with a considerable quantity of blood and serum, and interspersed with numerous small indurated black points resembling tubercles, & a few points of suppuration; the mucous membrane inflamed; one abscess full of scrophulous cheesy matter communicated from the outer and upper end of the sternum into the thorax, outside the pleura costalis.	H	He was of a slender delicate make, his neck and chest covered with scrophulous ulcers.
Lisle, (Thomas) æt. 56.	Jan. 18,	Relapse of fever attended with dysentery; tongue brown, excessive thirst, skin yellow, numerous black stools, great anxiety and despondency, very frequent pulse, subsultus tendinum and considerable prostration of strength; twenty-four hours after admission, laboured breathing and coma took place.	Considerable serous effusion both in the sac of the arachnoid and under that membrane, between the convolutions of the brain; the ventricles filled with water to distension, the arachnoid thickened to a considerable degree and opaque, the pia mater, plexus choroides, and substance of the brain of a pale colour.	Some interstitial serous effusion into the substance of the lungs.	H.	An old sailor with a broken constitution.

NAME.	Date of death and illness	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
Magrath, (Nancy) æt. 53.	1813, Jan. 28, on the 11th day.	Considerable dyspnœa and cough, with slight headach in the beginning, all which had been relieved, and she was getting better, when on the tenth day a slight return of headach with delirium and painful swelling of the left parotid took place, the skin became yellow, tongue brown and dry, pulse very weak with great debility; on the 11th, skin of a dark yellow, low delirium, moaning, pulse slow and weak, coma and death.	Some water under the arachnoid, thickening and opacity of this membrane, a little serum laid in the ventricles, cerebral substance very firm.	Pericardium adhering firmly to the heart; strong cohesion between the pleuræ, both these alterations apparently of old date.	Liver small, of a dark red colour and irregular surface, healthy in its structure, gall bladder small, containing a small quantity of brown bile, and two large rough yellow granulated calculi; one wedged in the neck of the bladder so as to obstruct the opening into the duct; the ductis larger than usual, inner coat of the stomach of a deep red, and highly vascular, the small intestines loaded with venous blood, their mucous coat of a deep purple, both the stomach and intestines contained a red mucous matter.	
Lolor (Margaret) æt. 40.	Feb. 8, on the 9th day.	At the beginning, headach, epigastric tenderness, pain in the stomach and oppressed breathing; on the 7th day no pain, but much debility and anxiety, died on the 9th unexpectedly, having fallen into a comatose state.	A small quantity of water in the sac of the arachnoid; a greater quantity between the convolutions of the brain, and ventricles; the arachnoid thickened and opaque.	H.	H.	
Curtis (Catharine) æt. 32.	Feb. 11, on the 15th day.	This woman miscarried in the course of her fever, which at first was attended with moderate symptoms. She was five months pregnant. The day following the miscarriage, she suddenly fell into a comatose state, and continued so until her death, which took place four days after.	The veins on the surface of the brain rather more turgid than in the healthy state; the ventricles contained 8 oz. of a turbid yellowish white serum, and a quantity of bright pea green water, heavy, sinking in water, lay in the bottom; their cavities were much enlarged, and their sides covered with a reddish, soft, pulpy matter.	Lungs slightly adherent to the sides of the thorax; much serum effused into their substance.	The uterus was as large as a closed fist and soft; it vessels very large.	

Mary, (Catharine) æt. 18.	Feb. 11, on the 21st day.	In a state of violent delirium, when admitted on the 8th day of illness; no account of her situation could be got from her; continued in this state with very little alteration until her death; seemed rather more sensible, and took some food on the 17th; stools black, fœtid, and passed involuntarily; on the 14th and 15th convulsions, soon followed by great debility, stupor, tremor and coma.	The surface of the arachnoid rather dry; veins slightly turgid; ventricles of natural size and appearance, containing about three ounces of bloody serum; dura mater firmly adherent to the bone.	Pericardium adherent to the heart at its anterior part, at the superior part of the right ventricle, and at its junction with the auricle; the adhesions could be easily torn.	Surface of the peritoneum very dry, small intestines of a dark colour, loaded with venous blood, empty and contracted.	
Magee, (Michael.) æt. 60.	Feb. 15, on the 18th day.	Entire abdomen, particularly the right hypochondrium extremely tender on pressure; surface of the body and the eyes of a yellowish hue, great prostration of strength, restlessness and moaning, pulse feeble and indistinct, tongue black.	Not examined.	Not examined.	Surface of the liver coated with lymph; its membrane opaque and thickened; its substance apparently healthy, eight calculi in the gall bladder, and a quantity of thick ropy bile; the duct pervious; mucous coat of the stomach covered with a thick darkish matter, under which were observed a number of red spots something like petechiæ, intestines all glued together by recently exuded lymph.	
Fagan, (Matthew) æt. 26.	Feb. 20, on the 18th day.	Admitted on the 15th day of illness, in a state of stupor and insensibility; occasional violent delirium, black stools; rather more sensible on the 17th, but on the 18th became comatose and died.	Vessels on the surface of the brain turgid; a great quantity of water effused under the arachnoid; the pia mater at the basis of the brain inflamed and much thickened; a small quantity of serum tinged with blood in the ventricles; the plexus choroides and vascular system of the brain unusually loaded with blood; the cerebral substance very firm.	Not examined.	Not examined.	

NAME.	Date of death and illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
Boyle (Margaret) æt. 20.	1818. Feb. 25, on the 8th day.	The fever set in with very severe headach; dyspnœa, cough and tenderness of the epigastrium; on the 7th day headach relieved, less dyspnœa and cough, but excessive tenderness of the epigastrium and hypochondria and pain in these regions, skin yellow; great anxiety and prostration of strength. In the evening, and during the night, delirium and convulsions; and on the 8th, the skin acquired a dark brownish yellow colour. She was constantly moaning and at last became comatose.	Some serum of a brownish yellow between the convolutions of the brain and in the ventricles.	Il.	Liver large, much rounded on its surface, rough, and pushing up the diaphragm so as to lessen the dimensions of the chest. All the natural eminences more prominent than usual; the whole occupied by small tubercles of a brick red colour, of oval shape, and the size of a large pea, closely compacted, leaving no intermediate sound liver; the ductus communis permeable, but surrounded by an enlarged indur. and pancreas and enlarged lymphatic glands. The spleen enlarged, filled with small white tubercles, the size of pin heads. Some spots of exfoliation in the course of the large vessels of the inner surface of the stomach.	This girl was of a dark complexion and full habit, and had undergone a great deal of hardship and ill-treatment, previous to her illness.
Macdonogh, (James) æt. 16.	March 7, on the 30th day.	At first headach, some stupor, great thirst, hot skin, and very frequent pulse; on the 6th or 7th day he became jaundiced; fæces white, urine of a deep yellow, tongue a thick clammy fur. The fever by degrees abated, but the jaundice remained; there was a slight temporary amendment in his state, but at last the abdomen became tender and swelled, his strength sunk, and he died.	Slight serous effusion under the arachnoid and in the ventricles.	Strong adhesions between the pleuræ.	Contained about half a gallon of yellowish brown fluid; on the inner surface of the stomach a number of large circumscribed red blotches; a very large abscess in the liver, surrounding the vena portæ and other vessels at their entrance into this viscus.	

Law, (Margaret) æt. 19.	March 10, on the 6th day.	The first symptoms were severe headach, nausea vomitus; considerable epigastric tenderness and vomiting of every thing she took; a thick grey fur on the tongue, pulse frequent and small; these symptoms continued increasing in severity; on the 4th day tongue brown, extreme anxiety, stools green; on the 5th great prostration of strength, and on the 6th stupor and coma.	The base of the cerebellum universally overspread with a thin layer of black blood effused between the arachnoid and pia mater, the same appearance along the course of the falx, and also on a large portion of the left hemisphere, and a smaller portion laterally and posteriorly of the right; upper parts of the anterior lobes more vascular than natural, vessels of the corpus callosum distended and tortuous; gradual increase of vascularity of the spinal cord, beginning at the upper third, and extending downwards, and numerous large vessels running along the cauda equina.	Il.	One or two spots of ecchymosis on the internal surface of the stomach.	This girl was a nurse, and immediately before being taken ill she had undergone great fatigue by sitting up for several nights successively with a patient who died of fever.
Farrel, (Thomas) æt. 50.	March 10, on the 21st day.	Severe cough, copious expectoration tinged with blood, laboured respiration, bloated livid countenance, a degree of stupor, raving and moaning, pulse frequent and feeble, prostration of strength, involuntary stools.	Veins on the surface of the brain turgid, slight serous effusion under the arachnoid.	Mucous membrane of the bronchiæ of a red granulated appearance, and these tubes containing a considerable quantity of thick bloody mucus.	Il.	Subject for many years to a distressing asthma.
Carney, (Edward) æt. 50.	March 11, on the 10th or 11th day.	First affected with headach, which soon subsided; black tongue, pale countenance and deafness; for several days the symptoms moderate; on the 7th or 8th day delirium, tremors, much prostration of strength, tongue with a black crust; the next day violent delirium, eyes suffused, flushed face, dun petechiæ; the day after, stupor, subsultus, twitchings, black stools, muttering delirium.	Some serous fluid in the sac of the arachnoid, a considerable quantity between the convolutions of the brain separating them widely from each other; a little in the ventricles.	Il.	The internal surface of the stomach covered with numerous red spots; that of the large intestines of a dark red colour, and its vascularity increased.	

NAME.	Date of death and illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
M'Glinn, (Mary) æt. 20.	1818 March 17, on the 9th day.	Headach, cough, dyspnœa and mucous expectoration; died suddenly on the third day after admission, complaining of soreness and burning at her heart.	H.	The lungs in part quite solid and attached by very firm connexions to the pleura costalis.	H.	
Rogan, (Michael) æt. 45.	March 29, on the 16th day.	On the 8th day headach; on the 9th cough, succeeded by raving, watchfulness and universal tremor; immediately previous to death, subsultus, low muttering delirium.	H.	Adhesion of the pleuræ.	H.	His wife (who died also) and children were in the hospital at the same time, which circumstance preyed constantly on his mind.
Byrne, (John) æt. 28.	March 25, on the 11th day.	Delirium ferox, flushing, redness of the eyes, mouth and tongue black and parched, pulse frequent and feeble, petechiæ.	The surface of the pia mater entirely covered with minute red vessels, and presenting patches of extravasated blood. Brain very firm, numerous bloody dots appeared on cutting into it; between two and three ounces of serous fluid in the lateral ventricles.	H.	H.	
Cotter, (Charles) æt. 30.	April 1, on the 13th day.	First affected with headach, epigastric tenderness, general pains and frequent rigors; free from fever on the eighth day; relapsed on the tenth with headach, severe general pains, rigor lasting all day followed by heat at night, great prostration of strength, irregular frequent pulse; on the 12th became very yellow in a few hours; deeply jaundiced on the 13th, pulse slow and irregular, involuntary evacuations, extreme debility.	Slight effusion into the sac of the arachnoid, in greater quantity under that membrane, and a small quantity of water in the ventricles; the arachnoid thickened and opaque.	H.	The cystic duct completely obstructed by two or three small calculi; the gall bladder filled with a thick dark coloured bile.	

Fogherty, (Catharine) æt. 16.	April 7, on the 13th day.	Headach and epigastric tenderness at the beginning; after a few days a degree of stupor and great debility, which went on increasing until death. She was without any very distinct local affection.	A considerable quantity of fluid in the ventricles, which were enlarged; slight effusion under the arachnoid.	A small quantity of red fluid in both sides of the chest, and more fluid than usual in the pericardium; old adhesions between the pleuræ, increased vascularity of the right lung, interstitial effusion in the left.	The mucous coat of the stomach presented a general blush of red, and was covered with numerous red dots; the redness greater near the œsophagus, and there the membrane was soft and pulpy.	This was a relapse; it appears the girl had been very ill treated by her relations, and also laboured under great mental depression.
Murray, (Thomas) æt. 53.	April 9, on the 25th day.	Seized at first with rigor, pain in the right side and cough, but no headach. When admitted on the 14th day of illness, considerable delirium, face flushed, eyes suffused, slight cough. A few days after, severe dyspnœa, wheezing, hard cough; these symptoms subsiding, he continued better for some time, though greatly exhausted; was then affected with dysentery, on the subsidence of which he had a sudden return of the affection of the chest and died.	The ventricles filled with fluid; a large quantity effused between the convolutions of the brain, the arachnoid firmer than in health, and opaque.	A large abscess at the upper and posterior part of the right lung, occupying nearly one fourth of its substance; the rest of this lung greatly stuffed with blood.	Inflammation of a portion of the mucous coat of the sigmoid flexure of the colon.	
Kane, (James) æt. 50.	May 5, on the 16th day.	Some headach in the beginning, with furred tongue, and little febrile action, the temperature remaining natural; but the eyes soon became dull and inflamed, and the countenance muddy; the pulse sunk, the extremities became cold, and he died in a state of stupor.	The arachnoid raised from the pia mater by a considerable quantity of serous fluid; the pia mater unusually vascular, and in some places smeared over with blood; a considerable quantity of serous fluid in the ventricles, the substance of the brain very firm, and its vascularity increased.	H.	H.	

NAME.	Date of death and illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
M'Gurk, (Mary) æt. 53.	1818 May 6, on the 17th day.	At the beginning severe headach and some cough; on the seventh day, most violent delirium, brown tongue, sordes on the teeth, dark stools, numerous petechiæ; for several days the delirium very high, pulse 140, great debility, fœtid involuntary stools, cold feet; general amendment on the 11th; but the fever returned with great restlessness; she had a paroxysm of rigor without sweat, succeeded by stupor, constant moaning, and coma.	The ventricles completely filled with fluid; a moderate quantity under the arachnoid, a great deal remained in the basis of the skull after the brain was taken out.	General adhesions between the pleuræ of old origin.	Liver enlarged, its anterior edge thick and round.	
Gill, (Daniel) æt. 36.	May 10, on the 11th day.	Headach, stupor, dyspnœa and cough, right hypocondrium tender on pressure, the conjunctiva still more so, general debility; on the 11th breathing more oppressed, and he sunk by degrees into a comatose state.	Serous effusion in moderate quantity under the arachnoid; this membrane opaque, the fluid under it had the appearance of a jelly (this appearance observed wherever a similar effusion existed.)	The lungs very much stuffed with blood; their substance of a bright red, and containing a considerable quantity of reddish fluid.	The greatest portion of the inner surface of the stomach of a bright red, covered with a number of dots and patches of a deeper colour; the vessels of the mucous coat minutely injected, presenting an arborescent appearance; the rest of this surface of a dark muddy colour, covered with a thick tenacious matter; the duodenum presented the same appearances. Liver very soft and flabby, its investing membrane easily torn off.	This man's constitution worn out by age, disease, and poverty. He had been affected with a liver complaint about the end of 1815.
Tracy, (Edward) æt. 38.	May 13, on the 11th day.	Severe headach, much dyspnœa and cough at the beginning; the former went off, but the two latter symptoms considerably increased; there was purulent expectoration, much wheezing, brown and dry tongue, pulse 130, weak, great debility and emaciation; the dyspnœa increased, and the pulse fell to 70 before death.	A small quantity of serous effusion under the arachnoid.	Increased vascularity of the mucous membrane of the larynx and trachea; the same appearance in the bronchial tubes, which were lined with a ropy grey coloured matter; some portions of the lungs stuffed with blood; they did not collapse on opening the thorax.		This man always subject to catarrhal attacks with dyspnœa, had used a great deal of mercury for syphilis, and was covered with copper coloured blotches; and came from the Lock Hospital where he had been lying two months.

M'Keon, (Mary) æt. 24.	May 29, on the 14th day.	Slight headach in the beginning; during the first nine or ten days the fever complied with dysentery, severe pain in the upper region of the abdomen, and excessive tenderness on pressure, tongue brown and dry, yellow skin, great anxiety, languor, and debility; general relief on the 10th or 11th day; affected then with dyspnœa and cough, which increasing rapidly whilst her strength failed, appeared to occasion her death; pulse 88, and breathing eight in a minute for at least twenty-four hours before death.	Very slight effusion under the arachnoid, and in the ventricles.	The lungs did not collapse, were rather firmer than usual, their substance more vascular, containing a very considerable quantity of serous fluid mixed with purulent mucus; the bronchial membrane highly inflamed; the tubes filled with a viscid frothy yellow matter.	Ib.	Ib.
Downey, (Mary) æt. 50.	June 12, on the 17th day.	Difficulty of breathing, cough, expectoration, and severe dysenteric symptoms from the beginning. During the four or five days preceding death she passed by stool a considerable quantity of dark blood. She had a brown and dry tongue, foul taste, excessive thirst, severe headach and great anxiety.	Slight effusion under the arachnoid and into the ventricles; the arachnoid a little thickened and opaque.	Firm adhesions between the pleuræ; considerable serous effusion into the cellular substance of the lungs, and the vessels loaded with blood; a few tubercles, black, hard and gritty; the bronchial tubes and trachea stuffed with a thick, yellow viscid mucus; their lining membrane of a dark red; numerous adhesions, white, firm and thready, between the heart and pericardium; the surface of the heart white and villous; spots of ossification in the semilunar valves, and in the aorta.	Mucous coat of the large intestines of a dusky brown colour; its thickness increased, its texture soft and pulpy, its surface in some parts rough; About a gallon of yellow serum in the abdomen.	Subject to cough for two years before death.

NAME.	Date of death and illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
Lacy, (Esther)	1818, June 12th	Could give no account of herself when admitted; constant moaning, incoherent in her replies, referred all her sufferings to the epigastrium, which was extremely tender on pressure, as well as both hypochondria; skin yellow, breathing laboured, frequent short cough, some wheezing, hiccup, and twitching of the mouth, tongue with a grey clammy fur, pulse weak and very frequent; died the day after admission.	A very small quantity of serous fluid in the ventricles and under the arachnoid; slight opacity of that tunic.	Firm adhesions between the pleurae; some interstitial effusion in the lungs.	The mucous coat of the stomach of a bright red, principally in the left extremity, and a number of stripes of a deeper red in the direction of the vessels and of the folds of the membrane; increased vascularity of the intestines; liver,—a pale livid colour, its anterior edge thickened; its membrane in some places opaque and thick; its surface irregular, some patches of a yellowish colour, more dense than the rest, and a few hard gritty spots interspersed throughout its substance; ducts permeable; gall bladder almost empty.	
Jones, (Jane) æt. 5.	June 21, on the 8th day.	When admitted, the body covered with numerous small petechiæ, of a dusky red, and a few spots of a larger size and darker colour; she was completely free from fever, and her health perfectly good; the petechiæ faded in the course of a fortnight, but she was shortly after seized with fever; at first headach, epigastric tenderness and hurried respiration; relief on the 4th day; exacerbation on the 5th; on the 6th minute petechiæ, pale countenance, black stools; on the 7th livid spots on the arms, left cheek, and particularly the nose; breathing hurried; on the 8th death.	H.	Slight effusion into the pericardium of a transparent fluid.	Congestion of blood in different portions of the mucous coat of the stomach, and its whole surface very similar to the skin, when covered with purpura, only that the spots were of a more vivid red.	H.

Gaaner, (Thomas) æt. 25.	June 21, on the 15th day.	Had violent headach at the commencement, but on admission was in a state of stupor; eyes inflamed; countenance dark and muddy; tongue dry and brown; temperature of the body below the natural standard; lower extremities very cold; pulse almost imperceptible; stools dark and passed involuntarily.	Arachnoid firm and opaque; considerable quantity of serous fluid between that tunic and the pia mater; vessels of the pia mater minutely injected with blood; substance of the brain very firm, and an unusual number of bloody points observable on cutting into it; a small quantity of fluid in the ventricles; plexus choroides remarkably pale.	H.	Cells of the colon very large, and filled with scybala; mucous coat of the descending colon, and particularly of the sigmoid flexure, having a dark inky colour; its texture soft and easily separated from the muscular coat, the veins between them very minutely injected and distended with black blood, ramifying so as to present a fine reticform appearance (the same appearances observed in a greater or less degree in most cases where the stools were black and fœtid.)	
Burke, (Patrick) æt. 30.	June 22.	Died the day after admission; could give no account of himself; his body was of a dark livid hue; tongue black; feet cold; respiration hurried.	Very considerable effusion of an opaque serous fluid between the arachnoid and pia mater; ventricles filled with a clear fluid; the sinuses distended with dark blood, the vessels of the brain unusually turgid.	H.	H.	
Duffy, (Sarah) æt. 18.	June 23, on the 17th day.	The fever set in with severity; it was attended by cough, occasional dyspnœa, bad expression and colour of countenance, green and slimy stools, on the 7th day chest relieved, fever abated; on the 8th and 9th chest again engaged; temperature of the body below the natural standard; feet cold and œdematous, some stupor; from the 10th to the 16th gradual amendment, but the stools continued green up to the 16th, when they appeared more natural; in the evening she refused her food; the lips became livid, and she died unexpectedly next morning.	Brain very soft, pale and pulpy; the surface presenting a jelly like appearance; slight serous effusion into the ventricles.	Slight bloody coloured effusion in either side of the chest; some effusion into the pericardium.	Liver pale, soft and flabby; gall-bladder distended with bile; the colon contained a considerable quantity of yellow pappy fœces; kidneys soft and flabby.	

NAME.	Date of death and Illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
Reilly, (Mary) æt. 45.	1818 June 26, on the 12th day.	General pains, great anxiety and depression of the spirits, with pungent heat; crisis by sweat on the 11th with much relief; on the 12th and 13th stupor, prostration of strength and coma.	Considerable serous effusion in the sac of the arachnoid and some between the convolutions, a small quantity of fluid in the ventricles, a great deal remained in the skull after the brain was taken out.	H.	H.	
Brown, (Sarah) æt. 31.	July 4, on the 10th day.	Dyspnœa, cough, pain in the chest, headach, epigastric tenderness; all the symptoms relieved except the dyspnœa and cough, which continuing severe, her strength failed rapidly, and death soon took place.	Considerable effusion in the ventricles of the brain.	Numerous firm adhesions between the pleuræ, the right lung hard and heavy, sinking in water, the pleura of that lung slightly thickened.	Liver enlarged, investing membrane opaque in certain places, structure healthy.	
M'Carthy, (Pat.) æt. 27.	July 11, on the 14th day.	Had a first attack of fever attended with headach, considerable epigastric tenderness and occasional vomitings; convalescent on the 8th day, but three days after relapsed with some return of epigastric tenderness, this symptom soon subsided but was succeeded by considerable febrile anxiety, brown tongue, much tremor of the under jaws and of the hands, and he died on the 9th day after the relapse.	Very slight effusion under the arachnoid, globules of air under the pia mater.	About three ounces of fluid in either side of the chest, and four ounces in the pericardium, foramen ovale open.	A small quantity of serous fluid in the abdomen, the vessels of the mucous membrane in some parts of the ileum and large intestines presented an arborescent appearance.	

Basie, (Patrick) æt. 15.	July 15, on the 8th day.	Had headach at the beginning, and on the 6th or 7th day became delirious; eyes suffused and red, face flushed, tongue a dark brown dry crust, sordes on the teeth, bowels confined for seven days; the delirium continued until the 18th; he had a wild expression of countenance, dark crimson flushing of the cheeks, strabismus, flocculation, great prostration of strength from the 16th to the 24th was rather better, no longer delirious, slept well, p. 120—grew worse on the 25th, the delirium returned, the breathing became hurried, and his strength rapidly sunk.	Considerable effusion into the sac of the arachnoid; veins on the surface of the brain unusually turgid, pia mater uniformly increased in vascularity; about two ounces of serous fluid in the ventricles; a section of the medullary substance presented numerous bloody dots, a great deal of fluid remained in the skull after the brain was taken out, and on inverting the body a small quantity issued from the spinal canal.	About three ounces of fluid in the pericardium.	Great increase of vascularity in the mucous coat about the cardiac orifice of the stomach; the rugosæ disposed in stripes accordant with the course of the vessels, the veins of the stomach very turgid. The mucous membrane of the small intestines slightly increased in vascularity in a few places; that of the large intestines, particularly towards their termination, of a dark brown, appearing to be occasioned by congestion of blood in the minute veins.	
A. B.	July 20,	In a comatose state when admitted; skin of a deep yellow, appearance of bruises on the arms and legs, as if from ligatures used to fix the patient down to the bed; pulse very feeble; died the next day.	H.	H.	The mesentery was covered with numerous large blotches of a black colour and irregular shape, but circumscribed, leaving the membrane between them perfectly healthy, they were more numerous in the course of the vessels, and consequently along the termination of the mesentery at the intestines, but none were observed on the intestines; these blotches were occasioned by extravasation of venous blood into the cellular substance connecting the layers of the mesentery; the membrane itself over them was slightly red and vascular; small clots of blood could be expressed out of many of them; the stomach and intestines found healthy, their coats rather paler than usual; a few similar blotches observed in the mediastinum and under the pleura costalis.	The brain being healthy in this case, was contrary to every reasonable expectation.

NAME.	Date of Death and Illness.	SYMPTOMS.	MORBID APPEARANCES AFTER DEATH. HEAD.	CHEST.	ABDOMEN.	REMARKS.
White, (Catharine) æt. 62.	1828, July 14, on the 20th day.	When admitted on the 8th day of illness she had general pains, excessive epigastric tenderness; some headach; on the 13th headach increased, epigastric tenderness great; some relief on the 14th; and continued better, complaining chiefly of weakness and general pains until the 19th, when there was aggravation of the pains, increase of anxiety and some stupor; on the 13th the pains were excruciating, especially in the feet, considerable epigastric tenderness, difficulty in swallowing and extreme debility.	A considerable quantity of bloody coloured fluid in the sac of the arachnoid, turgescence of the veins in the posterior lobes of the brain, a gelly like fluid effused between the arachnoid and pia mater, numerous bloody dots out of which blood could be expressed, were observed on making a section of the cerebral substance, a considerable quantity of serum remained in the basis of the skull when the brain was taken out.	Slight adhesion between the pleurae.	The mucous membrane of the stomach uniformly increased in vascularity and encased over with a yellowish glairy substance; several portions of the small intestines appeared red externally, and there was an increase of vascularity in the corresponding portions of their mucous membrane.	
Allen, (Peter) æt. 30.	July 30, On the 10th day.	The chest was at first the part chiefly engaged, and his complaint appeared to be an acute catarrhal affection of the lungs; he had obtained considerable relief, when on the seventh day of illness headach set in, soon succeeded by violent delirium, tremors, prostration of strength and coma.	A small quantity of serous fluid effused into the sac of the arachnoid; a considerable quantity between the pia mater and arachnoid tunic, and some filling the ventricles; no morbid appearance observed in the spinal marrow.	H.	H.	

Steele, William) æt 29.	August 7, On the 16th day.	Headach and sickness of stomach from the beginning; when admitted, on the 14th day of illness, there was still severe headach, flushing of the face, considerable inflammation of both conjunctivæ, which were in a state of ecchymosis, and pain in the eyes; also anxiety and depression of mind; brown dry tongue, hot skin; frequent pulse; on the 15th, referred his distress principally to the stomach; the eyes closed; great restlessness; on the 16th delirious and restless all night, and towards morning fell into a comatose state, with stertorous breathing, clenching of the fist, raising of the hand to his face, tremors and subsultus; eyelids half closed, conjunctivæ protruding, power of deglutition almost lost.	On the lateral part of the right hemisphere of the brain were two large clots of blood, which penetrated deep into the medullary substance; the medullary substance surrounding each clot changed into a soft jelly like matter, very similar to rennet curd; the left ventricle contained a considerable quantity of water, and its cavity was much enlarged; the left ventricle also full of water, but not distended. A considerable quantity of clear fluid under the arachnoid membrane of the medulla spinalis throughout its whole extent.	Six ounces of fluid in the pericardium; left lung firmly adherent to the parietes of the chest.	The internal surface of the stomach round the cardiac orifice of a deep vermillion colour; general redness, and increased vascularity of its mucous membrane, and numerous small dark spots of extravasated blood interspersed throughout.	
Millmore, (Mary,) æt. 28.	Aug. 9th. On the 12th day.	The head severely affected from the beginning of her illness; P. very frequent; tongue a brown fur; the headach, though a little relieved, continued to be the chief symptom of illness for many days, she at last became very restless and anxious, and fell into a state of stupor, soon followed by coma and sterter.	Great increase of vascularity in the pia mater; veins unusually turgid; about two ounces of fluid in the ventricles, and the same quantity in the basis of the cranium and in the sheath of the medulla spinalis.	Lungs stuffed with serum, and a few portions with lymph, especially the right superior lobe.	One or two opaque spots on the liver; intestines rather loaded with blood.	Pregnant 8 months, had been subject to headach and epistaxis during her former pregnancies.
Lanahan, (James,) æt. 60.	Aug. 14th On the 9th day.	Relapsed on the 6th day of convalescence; on the day of relapse, rigor; hot skin; frequent small pulse; furred tongue; debility and tremor. On the 3d day, debility, anxiety; pungent heat; foul taste; deafness.—Evening, increased anxiety; moaning, hurried, laborious breathing; torpor; involuntary stool: dark fœtid discharge; sunken countenance; death at 11 o'clock.	Serous effusion under the arachnoid; about two ounces of colourless fluid in the ventricles; a small quantity of fluid in the sheath of the medulla spinalis.	H.	H.	The first attack of fever was slight; he was an emaciated old man. The viscera of the thorax and abdomen were remarkably sound.

I shall now lay before the reader a table illustrative of the morbid sequelæ of the Epidemic fever. This table contains the names of those individuals who were admitted into the Whitworth Hospital, between the middle of April and middle of August, 1818, with their diseases, all of which arose during fever or during convalescence from fever. The cases were reported by Mr. Cumming, by whom this very satisfactory document was prepared at my request; several of the dissections were made by Mr. Phipps.

I cannot conclude this paper without thanking the gentlemen who have been acting as clinical clerks to the Medical Hospitals of the House of Industry * for the assistance which I have received from them during the past year; and I must add, that the ardour which they have shewn in the pursuit of knowledge is highly praise-worthy, their attention and kindness to the sick admirable. In the exercise of their duty, several of these gentlemen contracted fevers, and it deserves to be recorded, that they were scarcely recovered, when they resumed their occupation in the fever wards with renewed zeal.

* Messrs. Macdowell, Crawford and Phipps, Dr. Marsh, and Mr. Cumming.

1818.				TERMINATION.			
Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	Date of Discharge.	Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Stevenson, (Alicia) æt. 50. April 14th.	Dysentery.	During convalescence.	Good.	May 15th. Relieved.			
Griffith, (David) æt. 12. April 14th.	Incipient Phthisis.	During fever.	Delicate: subject to dyspnœa.	May 22d. Cured.			Symptoms of pneumonia occurred during fever.
Moore, (Eliza) æt. 19. April 14th.	Cephalitis.	During fever.	Good.	June 15th. Cured.			In this girl, who had never menstruated, the bradsch was succeeded by a painful inflammatory swelling on the left tibia.
Mecabe, (Mary) æt. 22. † April 14.	Phthisis Pulmonalis.	During fever.	Catarrhal affection for eight months previous to fever.		May 9th.	Left cavity of the thorax contained 15 ounces of a sero-purulent fluid. Commencing tubercles in the lung of the same side; greatest portion of the right cavity occupied by a large vomica containing a pint of dark green fœtid pus.	This patient could not lie on the left side. The attack of fever was combined with pneumonia; catamenia had been suppressed for six months.
Turner, (Anne) æt. 27. April 15th.	Hysteric Epilepsy.	During fever.	Pretty good.	May 2d. Remitted to fever ward.			This affection returned after an absence of five years. Catamenia had been suppressed for six months.
Ashby, (Margaret) æt. 45. April 15th.	Anasarca.	During convalescence.	Good.	April 30th. Cured.			This patient had general rheumatic pains, which were also cured.

1818. Name, Age, and date of Admission.	DISEASE.	Period of Attack.	State of health previous to fever.	TERMINATION. Date of Discharge,	TERMINATION. Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Jones, (Charlotte) æt. 20. April 15th.	Phthisis Pulmonalis.	During fever.	Good.		12th July.	Above a gallon of exceedingly fetid pus in the right side of the chest. The superior portion only of the lung remained, which was hard, heavy, sinking in water, and adherent to the ribs; its substance filled with abscesses and tubercles; pleura slightly thickened. Some firm adhesions between the parietes and left lung, which was slightly tubercular.	The fever, in this instance, was attended with marked symptoms of bronchitis, which were never completely subdued. The course of her complaint was slow, probably owing to her having occupied a private ward; the 3d and 3d stages of phthisis were of short duration in all those patients who lay in the common wards.
Howell, (Mary) æt. 26. April 17th.	Melæna.	During convalescence.	Good.	May 11th. Cured.			
Mahony, (Catharine) æt. 19. April 17th.	Shooting pain of side.	During fever.	Good.	April 29th. Cured.			
Farian, (Patrick) æt. 35. April 18th.	Inflammation of liver and lungs.	During fever.	Good.	June 28th. Cured.			Addicted to excessive drinking.

Ball, (Harriet) æt. 17. April 18.	Incipient Phthisis.	During fever.	In general good.	April 29, at her own desire.			This girl was affected with hæmoptysis about three weeks before she took the fever. She had never menstruated.
Connor, (Bernard) æt. 17. April 20.	Debility and emaciation succeeded by ascites.	After a severe fever.	Delicate.		July 6,	Slight effusion on the surface of the brain, and in the ventricles. A thin clot of blood upon the inside of the arachnoid, and upon the superior part of the left hemisphere opposite to it. Right lung universally adherent. Left lung adherent to the pericardium, and diminished in size, its pleura rough, thickened and opaque; half a pint of fluid in the left cavity of the chest. Two gallons of bloody fluid in the abdomen. Two large coagula of blood on either side the abdomen, before the cæcum, and attached to the peritoneum of the parietes and intestines. Peritoneum thickened in part opaque, rough, and studded with small tubercles. Intestines thickened and soft. Cæcum, duodenum, gall-bladder, and pyloric extremity of stomach massed together. Liver hard and firm.	This boy was hectic when he was admitted, apparently from the irritation of a large unhealthy sore on the sacrum. After being three weeks in hospital he was attacked with pulmonic inflammation which yielded to topical bleeding, decoction of Iceland moss, &c., upon which his health improved, and the sore in his back healed; but it soon opened again, his health at the same time declining. Then the cough returned, and he complained of great tenderness of the abdomen, which was followed by ascites. A day or two before he died he became pale, as if he had been exhausted by a hæmorrhage, an appearance which the dissection fully explained.
Foster, (Elizabeth) æt. 22. April 20.	Hysteria.	Eight months previous to fever.	Delicate.	May 23, relieved.			
Kelly, (Mary) æt. 40. April 20.	Ascites with œdema of the legs.	During convalescence.	Good.	June 30, relieved.			In the course of this patient's illness the swelling of the abdomen more than once suddenly subsided, and again, in the course of two or three days, as suddenly re-appeared. On the second of May the menses appeared, after having been absent for a year, and the abdominal swelling suddenly subsided, but when the menses ceased, after a duration of two days it very rapidly returned.

1818. Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION: Date of Discharge.	TERMINATION: Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Burke, (Mathias) æt. 23. April 23.	Tympanitis with pain of left side.	Tympanitis during convalescence.	Delicate.	June 93, much relieved.			Pain of side had existed for a year previous to fever. She had amenorrhœa.
M'Keon, (Thomas) æt. 30. April 23.	Icterus.	On the 4th day of fever.	Good.	May 8, cured.			
Kelly, (Michael) æt. 30. April 26.	Phthisis Pulmonalis.	During fever.	Affected with dysenteric symptoms.		May 27.	Four ounces of clear fluid in the pericardium; right lung not adherent, full of distinct tubercles; left universally adherent; substance harder than liver. Abscesses in the upper part and tubercles throughout. Mucous membrane of the small intestines slightly inflamed; numerous small ulcerations towards the termination of the Ileum. Mucous membrane of the large intestines exceedingly pulpy and vascular.	This was a case of galloping consumption. The oppression of breathing, cough, and expectoration alternated with tetanus, tenesmus, and bloody stools. The fever was attended with a pulmonic affection.
Curry, (Winifred) æt. 15, April 30.	Phthisis Pulmonalis.	Previous to fever.	Subject to hæmoptysis.	May 10, remitted to fever ward.			After her second fever this patient, very contrary to expectation, completely recovered from her pulmonic affection.
Ferns, (Mary) æt. 45, April 30.	Iritis.	During convalescence.	Good.	May 27, cured.			Her stay protracted in consequence of an aneurism of the temporal artery.

Fitzgerald, (William) æt. 16, May 1.	Chronic Bronchitis.	During fever	Subject to short dry cough.	May 14, cured.			
Murray, (Thomas) æt. 55, May 6.	Œdema of feet and legs.	After fever.	Good.	May 9, eloped.			This man during his fever laboured under diarrhœa, which was attended with much exhaustion.
Addington, (Frederick) æt. 12, May 8.	Hydrocephalus acutus.	During convalescence from a fifth attack of fever.	Delicate for six months previous.		May 25.	Numerous bloody dots on a section of the medullary substance of the brain. Fornix elevated; ventricles contained two ounces of fluid. Both lungs universally adherent; right lung slightly tubercular; pleura of left lung much thickened and vascular. Serous membrane of the liver covered with loose cellular prolongations.	This patient, a *dumb boy*, when admitted, was in a state of complete insensibility, after a very severe attack of convulsions. The pupils were greatly dilated. During his previous fevers the head was the part principally engaged.
Ormsby, (Ellen) æt. 25, May 9.	General Anasarca.	During convalescence.	Good.	May 29, cured.			This was one of those cases of amasarca which seem to depend on an inflammatory affection of the chest—of the pleura perhaps.
Coulton, (Esther) æt. 40, May 8.	Inflammation of chest.	The pulmonic affection during fever.	Good.	June 5.			Dismissed, cured of the pulmonic affection, and relieved of pyrosis under which she also laboured.
Tyrrel, (Ellen) æt. 23, May 11.	General pains with hysteria	After fever.	Good.	June 30, cured.			In this patient, who had not menstruated for a year, there was some reason to suspect a venereal taint, and the effects of mercury tended to strengthen the suspicion.

* Right ear sound; the semicircular canals defective in the left ear, having each but one opening into the vestibule, running the usual course for a short distance, gradually diminishing, and terminating in a point.

1819.

Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION, Date of Discharge.	TERMINATION, Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Sutton, (Ellen) æt. 11. May 14.	Pain of hip, with epilepsy	Pain of hip subsequent to fever.	Subject to mastoideal epilepsy.	May 27.			Dismissed cured of pain of hip; epilepsy probably continued.
Reilly, (Eliza) æt. 14. May 14.	Phlegmonous swelling under right mamma.	At the termination of a remission of fever.	Previous to first attack of fever, good.	August 4th, cured.			Swelling under right mamma attributed to an injury received by falling out of bed.
Bourke, (Mary) æt. 20. May 15.	Phthisis pulmonalis.	During fever combined with pneumonia.	Good.		May 19th.	Lungs firmly adherent to parietes, filled with tubercles and vomicæ, the largest of these opening into the bronchial tubes. Mucous membrane of a bright red in the trachea, of a dark red in the ramifications, and its cavity filled with puriform matter.	This patient, in the latter part of her illness, was in a state of extreme suffering: pain and suffocation from inability to expectorate, harassed her night and day.
Fannin, (Thomas) æt. 24. May 16.	Dysentery.	During fever.	Good.	June 29th, cured.			This patient, when convalescent from dysentery, became affected with ascites, which yielded to a few doses of crystals of tartar and gamboge.
Mangan, (Michael) æt. 4. May 16.	Anasarca, with affection of chest.	During fever.	Good.	May 17th.			Was taken away by his friends before the case was investigated.
Purcell, (Thomas) æt. 20. May 17.	Catarrhal affection.	During the decline of fever.	Good.	June 19th, cured.			

Ready, (Judith) æt. 19. May 19.	Cynanche tonsillaris.	During convalescence.	Good.	May 30th, cured.			Catamenia had been absent for two months.
Grogan, (Michael) æt. 45. May 20.	General pains.	During convalescence.	Good.	May 25th, relieved.			Seized with pains after getting wet feet.
Bulger, (John) æt. 26. May 20.	Syphilitic pains.	During convalescence.	Good.	June 24th, cured.			The pains in this case abated after a slight attack of fever.
Morton, (John) æt. 25. May 20.	Incipient Phthisis.	During fever.	Good.	May 29th, cured.			
Fanning, (Eliza) æt. 26. May 21.	General debility, with pain of hip.	After fever.	Delicate.	May 29th, remitted to fever ward.			
Armstrong, (Christoph.) æt. 32. May 22.	Pleuritic stitches.	After fever.	Subject to cough.	June 9th, cured.			The chest was not affected during fever.
Conolly, (John) æt. 26. May 27.	Pneumonia.	Cough existed previous to fever	Good.		7th June.		Addicted to drinking in excess. A dissection of the body could not be obtained.

1833. Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION. Date of Discharge.	TERMINATION. Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Quigley, (Eliza) æt. 17. May 30.	General anasarca.	During convalescence.	Could not be ascertained.		24th June.	Slight effusion under the arachnoid in the ventricles of the brain; each cavity of the rax contained fluid; lungs adherent, unusually firm, and dark from congestion of blood. Mucous membrane of stomach vascular and spotted like a leopard's skin. Increased vascularity of the mucous membrane of the intestines in different parts. Kidnies firm; cortical substance pale, and like cartilage.	During her illness she passed blood by stool more than once, and had great tenderness of the epigastrium, and pain of the left hypochondrium, but was apparently recovering from these symptoms, and from the anasarca, when she suddenly relapsed without any assignable cause, and died in the course of five days.
O'Brien, (Mary) æt. 19. June 2.	General pains.	During convalescence.	Good.	June 20th. Cured.			Had not menstruated for 15 months.
Ryan, (Catherine) æt. 25. June 2.	General fever, with inflammatory affection of the chest.	At the termination of fever.	Subject to cough; Haemoptysis.		9th June.	Slight effusion into the ventricles of the brain, and between the convolutions. Bloody serum in either cavity of the thorax. Lungs tubercular. Five ounces of fluid in the pericardium. Large quantity of yellow fluid in the abdomen; liver large and firm, covered with recent flakes of coagulable lymph; gall bladder distended; shreds of coagulable lymph attached to the peritoneal coat of the stomach, duodenum and upper part of the jejunum; duodenum contained much yellow bile, and was dark red for about two inches from its commencement.	This woman had laboured under amenorrhœa for four months. A few days after admission into the Whitworth Hospital she was seized with fever, which was ushered in by cynanteric symptoms. On the second day of the attack there was yellowness of the skin; tenderness of epigastrium, and much vomiting and purging. On the third and fourth the yellowness was increased, and there was general tenderness of the whole abdomen with rejection of every thing she took; and on the fifth day she died.

Ryan, (William) æt. 19. June 7.	Inflammatory affection of the chest.	During fever.	Good.	June 29th. Cured.			
Flood, (Catharine) æt. 53. June 8.	Dysentery, with Hectic fever.	At the termination of fever.	Good.		13th July.	Ventricles of brain filled with serous fluid; liver unusually hard; kidneys hard; less vascular than usual; sigmoid flexure of colon, and rectum thickened in their coats; internal surface inflamed and much ulcerated.	Delirium for three nights previous to death, on the day immediately preceding, laborious wheezing respiration; prominence and staring of the eyes.
Burke, (Mary) æt. 57. June 6.	Debility with perspirations.	At the termination of a third attack of fever.	Good.	July 29th. Cured.			
Anderson, (Mary) æt. 32. June 15.	General anasarca and ascites.	During convalescence.	Good.	August 30th. Cured.			Recovering.
Reid, (Ellen) æt. 18. June 18.	Incipient phthisis.	Cough commenced two months previous to fever.	Subject to cough.	June 25th.			Discharged at her own desire; she had laboured under amenorrhœa for six months.
Cunningham (Margaret) æt. 23. June 25.	Incontinence of urine.	During fever.	Good.	June 29th. Cured.			

1838. Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION. Date of Discharge.	TERMINATION. Date of Death.	MORBID APPEARANCE AFTER DEATH.	EXPLANATORY REMARKS.
Kelly, (Catherine) æt. 23. June 19th.	Hæmatemesis.	After a third attack of fever.	Good.				This patient had not menstruated for seven months; she was still in Hospital, and slowly recovering.
Maguire, (Ellen) æt. 20. June 19th.	Dyspepsia.	Previous to fever.	Delicate.	July 9th. Relieved.			In this case the dyspeptic symptoms were aggravated after fever. Had laboured under amenorrhœa for seven months.
Barrett, (Richard) æt. 40. June 19th.	Ascites.	Previous to fever.	Subject to cough and Dyspnœa.	July 10th. Much relieved.			
Pullan, (Sarah) æt. 17. June 25th.	Loss of sight and hearing.	Loss of hearing during the fever; loss of sight during convalescence.	Good.	July 30th. Remitted to fever ward.			In this patient's fever the head was principally affected. When remitted to the fever ward, her sight and hearing were considerably improved. She completely recovered from the 2d attack of fever.
Robinson, (Hannah) æt. 38. June 26th.	Dysentery.	During convalescence.	Good.	July 30th. Cured.			This woman had laboured under dysentery in Gibraltar four years previous to the attack of fever.

Gardiner, (Mary) æt. 27. June 17th.	Phthisis pulmonalis.	Previous to fever.	Subject to cough and hæmoptysis.		July 14th.	Left lung diminished in size; hard, heavy; sinking in water; leaving a considerable space between the pleura, which contained a small quantity of serum. Large abscess in its superior portion, remaining part of its texture tubercular; right lung tubercular, increased in vascularity, and filled with interstitial effusion; bronchial glands enlarged, and of a dense texture.	During fever she had pain in the region of the heart, painful inspiration and sense of suffocation. Three or four days before her death she had a stitch in the left side, about the 9th or 10th rib.
Houlden, (Mary) æt. 36. June 30.	Sciatica.	During convalescence.	Good.	July 17th, Cured.			
Davis, (Catharine) æt. 25. June 30.	Œdema of feet and legs.	During convalescence.	Good.				This patient is still in hospital. The œdema is removed, but it has been succeeded by symptoms of irregular hysteria, under which she labours at present. Amenorrhœa for four months previous to fever.
Connell, (Patrick) æt. 30. July 1st.	Bronchitis succeeded by dysentery.	During fever.	For five days previous had cough, with hæmoptysis.		August 9th.	Small quantity of fluid in the ventricles, and under the arachnoid. Effusion in both cavities of the chest, and in the pericardium. Inferior portion of right lung adherent. Portions of pleura in the left cavity of the thorax highly vascular. Some fluid in the abdomen. Effusion like jelly between the layers of the mesentery and the colon. Intestines thickened. Increase of vascularity in the mucous membrane at the lower end of the small intestines: inflammation of the mucous membrane of the colon: many deep and jagged ulcers in the sigmoid flexure. In the rectum numerous small warty-like tumours, between which the mucous membrane was thickly studded with irregular ulcers.	In this case the pulmonic affection entirely subsided when the symptoms of dysentery came on. The disease, although characterized by mucous and bloody stools, tormina and tenesmus, was not attended with any tenderness of the abdomen upon pressure; the principal feature of the disease was extreme languor and prostration.

1838.

Name, Age, and date of Admission.	DISEASE.	Period of Attack.	State of health previous to fever.	TERMINATION. Date of Discharge.	TERMINATION. Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Doyle, (Peter) æt. 34. July 2.	Aphonia.	During convalescence	Good.	July 20th, cured.			
Packenham, (Mary) æt. 24. July 2.	Acute rheumatism.	During fever.	Good.				This patient is still in hospital, but convalescent.
Ashe (John) æt. 23. July 4.	Painful œdematous swelling of right leg and thigh.	During convalescence.	Subject to occasional cough.	August 7th. Remitted to fever ward.			In this case the right groin was swelled, hard and painful when pressed. He was relieved by leeching, a few days after which, the swelling subsided. When remitted to the fever ward there was still slight œdema of the leg.
Mitchell, (Mary) æt. 60. July 6.	General pains.	During fever.	Good.	July 17th, cured.			
O'Hara, (Francis) æt. 30. July 6th.	Pain of left arm, with paralysis of left hand.	During crisis.	Good.	July 17th, Elapsed. Relieved.			The pain of the arm occurred on the night of crisis; paralysis on the following morning.
Costello, (Arabella) æt. 20 July 7.	General pains, with dyspepsia.	Pains during fever, dyspepsia previous.	Delicate.	August 3d, cured.			

Lee, (James) æt. 60. July 10.	Œdema of legs and feet.	During convalescence.	Good.	August 8th. Cured.			
Begly, (Michael) æt. 60. July 10th.	General pains.	During fever.	Good.	July 17th. Relieved.			Remitted to the Richmond Surgical Hospital, for a tumour in the neck.
Farrell, (Hugh) æt. 25. July 15th.	Paralysis.	During convalescence.	Good.				This, which was a case of paraplegia, occurred on the 2d day of convalescence from a relapse of fever. He had nearly recovered, the chief remedy being an issue on the vertex
Doolan, (Mary) æt. 41. July 15th.	General pains.	During fever.	Good.	Aug. 3d. Cured.			
Warren, (Robert) æt. 40. July 16th.	Œdema of left foot and leg.	During fever.	Dyspeptic.	July 28th. Cured.			
Connor, (Patrick) æt. 18. July 17th.	Œdema of feet and legs.	During convalescence, from a third attack of fever.	Good.	Aug 1st. Cured.			

1818. Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION. Date of Discharge.	TERMINATION. Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
M'Bride, (Ellen) æt. 25. July 17th.	Œdema of feet and legs, with ascites.	On the 4th day of a 3d attack of fever.	Anasarcous for four months.		July 29th.	Small quantity of water in the ventricles of the brain; both lungs universally adherent; pleura costalis thickened and opaque; minute vessels in many parts injected with the blood; pleura pulmonalis highly vascular,—presenting in some parts the appearance of florid petechiæ; in the inferior portion of each lung unusual accumulation of florid blood; considerable quantity of clear fluid in the abdomen; intestines much distended with flatus; liver enlarged and much hardened; investing membrane opaque in some spots.	When admitted she laboured under diarrhœa, which, at the end of a week was succeeded by hæmorrhage from the bowels for a day or two; on the 8th day the abdominal swelling suddenly increased; the umbilical region, as also the thighs and legs, were intolerant of pressure. The diarrhœa returned and was attended with cough; pain of chest; oppression and dyspnœa. After three days of pulsatile distress, tenderness of belly suddenly vanished; the cough and oppression being much relieved. The pains of the thighs and legs however became much aggravated, and there were occasional severe paroxysms of dyspnœa with sinking of strength, and on the 11th day after admission she died.
Horan, (Elizabeth) æt. 17. July 20th.	Incipient phthisis	During a relapse of fever.	Subject to cough on exposure to cold.	Aug. 29th.			This girl seemed to owe her recovery to tar vapours, which she inhaled in a private ward.
Talbot, (Patrick) æt. 13. July 21st.	Œdema of feet and legs.	During convalescence.	Good.	July 25th. Cured.			This patient, upon the subsidence of the œdema, was seized with fever; the swellings have not returned during his second convalescence.

Dewey, (Mary) æt. 46. July 28th.	Dysentery.	During convalescence.	Good.	Aug. 14th. Cured.			
Connery (Mary) æt. 16. July 29th.	Œdema of feet and legs.	During convalescence.	Good.				Recovering.
Taffe, (Mary) æt. 22. July 30.	Dysentery.	During fever.	Good.		August 9th.	Slight effusion in the ventricles between the convolutions, and in the basis of the brain. Large intestines full of ulcerations, which beginning by small and very numerous depressions in the mucous coat, became very large as they extended up the colon. In the lower part of the ileum there were several ulcerations, three of which had penetrated through all its coats, but from the roughness of the serous membrane which surrounded the ulcers, the intestines seemed to have formed adhesions, and in this way the escape of their contents into the the cavity of the abdomen was prevented.	During the whole course of this patient's illness the abdomen was so tender as to be impatient of the slightest pressure. She had laboured under anæmorrhœa for six months previous to admission.
Lyons, (Francis) æt. 30. July 30.	Anasarca and Ascites.	During fever.	Good.	14th August, at his own desire.			He was reported to have laboured under symptoms of dropsy when a child. In the present instance the dropsy appeared to be the consequence of mercurial irritation, under which he had laboured for a considerable time: his mouth was very sore when he came into the Whitworth Hospital. Symptoms of scrofula were appearing when he was discharged.

1818. Name, Age, and date of Admission.	DISEASE.	Period of attack.	State of health previous to fever.	TERMINATION. Date of Discharge.	Date of Death.	MORBID APPEARANCES AFTER DEATH.	EXPLANATORY REMARKS.
Curry, (Catharine) æt. 27. August 11.	Chronic Peripneumony.	During Convalescence.	Subject to colds.				Amenorrhœa for six months. In hospital.
Devine, (Richard) æt. 12. August 11.	Hydrothorax & morbus coxæ.	During Convalescence.	Good.		August 29th.	Serum in all the cavities; 6 ounces in the bag of the arachnoid; 3 oz. of pus and lymph in hip joint; membrane round the neck of the femur vascular and thickened; the joint fairly lodged in the acetabulum.	Right leg lengthened by 1½ inch. Toe everted. Knee flexed. N.B. Acetabulum was sound, save at the edge of the depression, which was slightly eroded.
Cusack, (Nicholas) æt. 22. August 12.	General pains.	During fever.	Good.				
Coffey, (Thomas) æt. 26. August 12.	Chronic Rheumatism.	During Convalescence.	Good.				In hospital.
Sherlock, (William) æt. 26. Aug. 13th.	Hydrothorax	During Convalescence.	Good.				In hospital.

EDINBURGH CLINICAL REPORTS.

Printed by George Ramsay & Co.

REPORTS

OF

THE PRACTICE IN THE CLINICAL WARDS

OF

The Royal Infirmary of Edinburgh,

DURING THE MONTHS OF

NOVEMBER AND DECEMBER 1817, AND JANUARY 1818,

AND

MAY, JUNE, AND JULY, 1818.

BY

ANDREW DUNCAN, Jun. M.D. F.R.S.E.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, PROFESSOR OF MEDICAL POLICE AND MEDICAL JURISPRUDENCE IN THE UNIVERSITY OF EDINBURGH, AND ONE OF THE PHYSICIANS TO THE ROYAL PUBLIC DISPENSARY AND LUNATIC ASYLUM.

I think, better I had ane imperfect account transmitted, than none at all.
KIRKTON.

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1818.

TO

THE MANAGERS

OF THE

ROYAL INFIRMARY OF EDINBURGH.

GENTLEMEN,

THE substance of the following Reports was delivered as the concluding lectures of the two last courses of clinical medicine in the University of Edinburgh, upon the cases of patients treated in the Royal Infirmary. I was induced to publish them, in consequence of the late Parliamentary inquiry into the state of fever, and a regret often expressed to me, that, while, from the hospitals of Dublin, Cork, Glasgow, and London, excellent descriptions of the present epidemic had been communicated to the public, no account of it, as observed in the beneficent institution under your charge, had yet been published.

In the concluding lecture of each clinical course, I am in the habit of giving a systematical abstract of the occurrences which have taken place in the wards during the time they have been under my charge; and I thought that, by revising those delivered upon the two last occasions, and condensing them into one Report, I might, however imperfectly, supply the information wanted.

I was also desirous of laying before you an example of the manner of keeping an abstract of the multiplied experience of great hospitals, without which their utility, as a source of information to the profession, is greatly abridged. Such reports have been often published by hospital physicians in various capitals and schools on the continent of Europe; and those which we now receive regularly from Dublin are amongst the most valuable medical documents we possess.

I am fully aware of the numerous imperfections of the following pages. They were originally written, literally *currente ca-*

lamo, during the pressure of that multiplicity of objects which always demand attention towards the conclusion of a clinical course. For their composition, no other books were consulted than the journals containing the histories of the cases, as originally written by the gentlemen who so ably assisted me as clerks, and the daily reports dictated by myself to the pupils at the bed-sides of the patients. I have, therefore, quoted no authorities, and have entered into no controversy, but have merely attempted to give an abstract of what I saw and did. The remarks subjoined to the tabular view of the cases which were treated, are only those which resulted immediately from the consideration of the facts recorded in it. I have made no laboured attempt to generalize the phenomena of disease observed; but, in order to give a true picture of the most interesting diseases, and especially of our epidemic fever, I have added, in an appendix, a selection of the cases, extracted from the journals of the Hospital.

I trust that what I have done will meet with your approbation. I regret that I have not been able to do more; and I return you my sincere thanks for having been permitted, through your indulgence, to do so much.

I remain, Gentlemen,
Your much obliged
And very obedient Servant,
ANDREW DUNCAN, Jun.

Argyle Square,
1st September 1818.

EDINBURGH
CLINICAL REPORTS.

IN prefixing to these Reports some observations on the advantages to be derived from hospital practice, I have no intention to enter fully or minutely into the subject, but shall content myself with pointing out a few particulars which have been suggested to me by some recent inquiries into the state of fever in various parts of the empire.

The primary object of hospitals is undoubtedly the restoration to health of the patients admitted, and, as necessarily connected with this, the practitioner acquires great personal experience, and the pupils, (if there be any,) much valuable instruction. With these beneficial results many hospital practitioners rest satisfied, and altogether neglect another view of the subject, which, in my opinion, is scarcely less important, and is more calculated to indemnify the public for their liberality in supporting these charitable institutions, by tending to improve their economical management, and by collecting

and accumulating a store of professional information on the history of disease, which cannot be acquired in the most extensive private practice.

There are two modes commonly employed for preserving a record of the occurrences in hospital practice; the one consists in keeping a detailed journal of the cases, and the other in entering certain leading particulars into a tabular scheme. The former, which has always been regularly done, both by the ordinary and clinical physicians of the Edinburgh Royal Infirmary, is indispensable, or at least ought never to be dispensed with; and to this practice we owe the valuable clinical observations of Dr F. Home, and of Dr Hamilton. The latter is less constantly practised; but I consider it as scarcely less important. It is true, that if the detailed daily reports be kept regularly and fully, it is possible, by great attention, to extract from them such a tabular view of the principal circumstances as I am recommending; but by experience I know that an infinite deal of labour would be saved to the practitioner, if he were to make the entries when the circumstances occurred, and while the patients were still in the wards, and accessible for the purpose of further examination, which is often suggested by reviewing the facts resulting from these tabular records. Those practitioners only who are in the habit of doing this, are fully capable of appreciating its value, in enabling them to draw general conclusions from their own practice; for, when they revise

their tables, they are often astonished how very different the result turns out, from what they expected from the vague recollection of what they themselves had done and seen.

Nor is the trouble of keeping such tabular records so great as might be supposed. It requires only system and regularity; and when we see how easily it is done in the military hospitals, we cannot help regretting that it is not also introduced generally into civil hospitals. If the practitioner himself has not time to fill up the columns of the prescribed table, it would be very little additional trouble to his clerk, or, if the time of this assistant would not easily permit him, the duty would be very gladly undertaken by another of the hospital pupils.

It is however in a different point of view that I am now chiefly considering hospital reports,—I mean as calculated to give information to the profession and to the public, derived from multiplied experience, in a very condensed and intelligible form. The schemes of the report may be various, according to the object in view. To the profession they may be calculated to illustrate particular points in the history of the causes or phenomena of diseases, or the effects of particular modes of practice; while the public at large expect to obtain from them information on some circumstances highly interesting to the community, which can be derived from no other source.

The first point of information to be expected from hospitals is in regard to the state of health

in the places where they are situated. Some of these institutions, however, it appears, publish no report, and some, it is said, even keep no records. Others content themselves with publishing periodically the numbers of the patients admitted, of the deaths, cures, &c. Such a statement will furnish the means of ascertaining the rate of mortality, which may be used for instituting a comparison either with other years or periods in the same hospital, and with the rate of mortality in other hospitals. Without farther information, however, these data will be apt to lead to very erroneous conclusions, and many circumstances must be taken into account before we can establish from the smaller or greater rate of mortality in hospitals, that they are better or worse conducted, or that their medical attendants are more or less skilful. Nay some, as Burserius and Joseph Frank, have maintained the opposite doctrine; and although it may at first appear paradoxical that the rate of mortality should rise with the improvement of management and increase of skill, yet experience in some hospitals and places warrants the conclusion in a certain respect. The mortality in the Hotel Dieu of Paris rose uniformly as ameliorations in its management proceeded, after the anarchy of the revolution had ceased, and philanthropic minds again attended to the miseries of the poor; and in London, it is said, the mortality is highest in the best conducted hospitals. The solution of the paradox is easy. As hos-

pitals are every where limited in their extent and funds, it is obvious that they are best managed when they do the greatest good their means can effect; and this important object is attained by a proper selection of cases to be admitted, and by dismissing them as soon as they ought to give place to other sufferers. The general rule for the admission of cases is to prefer the most severe of those which admit of cure or relief by medical treatment; and this is exactly the description of cases in which the mortality is highest. Incurable cases are fitter for a poor-house than a medical hospital; and hence it is a rule in many of the latter, not to admit phthisical patients. When admitted, they increase the rate of mortality, but rather tend to diminish the absolute number of deaths, as they often linger for a great length of time, and thus lessen the number of patients received. Slight cases, unattended with danger, are generally unfit for hospital treatment, as they occupy beds which might be better employed. For these reasons, a high mortality may depend upon a proper selection of severe and dangerous cases, as well as upon improper management and unskilful treatment.

The records of public hospitals are also expected to give information concerning the frequency or rarity, increase or decrease, of the several diseases usually admitted; and the reports of different hospitals and dispensaries present us with lists of these diseases, and the number of patients affected with each. To perform

this part of the physician's duty judiciously is attended with great difficulty, not only on account of the imperfection of our nosological systems, but on account of the complication and indeterminate nature of deviations from health, so that every practitioner who has attempted it, knows well the difficulty, or rather the impossibility, of referring some cases, even although severe, to any recognized species of disease. Still, however, a register of diseases is of the greatest utility in giving information concerning the prevalence of the most important affections, especially those of an epidemic nature. It would be a great advantage, if some general classification could be adopted for all hospitals, and adhered to in all time to come, even although it were not the best possible. Were this the case, it should also be used as the basis of bills of mortality, and then we would be possessed of materials for determining the rise, height, and decline of each disease, and the effect of general causes upon their production and modification. Such a view is also necessary to enable us to know the share which each disease has in the mortality of the human race, at different times, and in different countries. The disease of each patient should be registered at the period of dismission, as in our Hospital, and not at admission, for its nature can often be only determined by its progress. If a patient should labour under two distinct diseases not depending upon each other, both should be noted, more especially if, after being cured of his original complaint, or while in hospital, he should be attacked by a new disease,—a contagious fever, for example, or hospital gangrene.

In the general register the sex and age of each patient should be marked, as well as the profession and the alleged cause of the affection. Each of these particulars throws much light upon the predisposing and exciting causes of diseases, and may enable us to take measures to counteract them.

Another circumstance, seldom attended to, but occasionally of great importance, especially during epidemic diseases, is to mark down the exact place, and even house, where the patient resided when he was first affected with the disease, or before he came into the hospital. By this means we shall be sometimes able to trace the introduction of contagious diseases, their progress from one part of a town or country to another, and the limitation of others to particular districts.

It is, lastly, of great importance, in an economical, as well as a medical point of view, to register the number of days each patient remains in the hospital. Connected with the average rate of mortality, it furnishes a criterion for estimating the general success of the treatment; and it is almost indispensable to enable the managers and public to judge of the zeal and activity of the medical officers in not permitting the hospital to be abused by the lazy and worthless, and to compare the amount of benefit derived by society in proportion to the expenditure.

For the Clinical School of the University of Edinburgh two small wards are allotted upon the first floor of the wings of the Hospital, one for each sex. They have cross lights, and are paved with tiles. Each consists of a body having four windows and eight beds, and three corner closets, with a window and two beds in each, making 14 beds in each ward. A fourth closet is for the day nurse, who has a night nurse as an assistant. * There is one fire-place in the body of the women's ward, and a fire in the nurse's closet. In the men's ward there are fires in two of the closets, which, besides, are over the hot baths, and one in the nurse's closet. The doors open into staircases, and are always open. The bedsteads are of iron; the bedding good; the ventilation is free, sometimes excessive; and, upon the whole, the wards are as comfortable as their original construction will allow.

The professor in charge of the clinical wards has the choice of the patients admitted each day by the ordinary physicians of the hospital, and it is his object to have as great a variety of diseases under his care as possible, and to select of each the most severe and interesting examples. In this ward, therefore, there are both chronic and acute cases, and one-half of the body of each ward is appropriated to fevers, and divided from the rest by a

* Including the closets, they are 50 feet long, 26 wide, and about 11 high, for 15 beds, which amounts to a little more than 86.5 square feet of surface to each person, or 953.3 cubical feet.

wooden partition reaching more than half way to the ceiling, by which arrangement it was hoped to combine the advantage of a fever ward with sufficient ventilation. The beds are seldom allowed to remain empty above a day or two, and chronic cases are generally dismissed as soon as the nature of the affection has been sufficiently considered, and there is no particular advantage likely to arise to the patient from residence in an hospital.

In consequence of the indisposition of my father and of Dr Rutherford, I had the charge of the Clinical Wards during the latter period of the winter and summer courses of last season; but in the following abstract, I include a report of the whole cases admitted during both quarters, that is, of the winter quarter commencing November 8th and ending January 31st, and of the summer quarter commencing May 6th and ending July 31st.

The whole number of cases admitted was,

	Men.	Women.	Total.
Winter quarter -	46	38	84
Summer quarter -	49	45	94

From the limited size of our wards, this statement does not allow us to draw any conclusion with regard to the liability of the different sexes to disease, as there were always more patients of each presented than we could admit, and we kept our wards nearly full.

If an hospital were sufficiently large to admit

all proper objects, then the numbers of each sex received might afford some result as to the influence of sex upon the frequency of disease. But even then we must not forget the influence of the customs, prejudices, and moral habits of each. A man who is not worn out seldom comes into an hospital for a slight complaint, while a married woman with a family will not come even for a very severe disease. On the contrary, unmarried women and old men, especially if they have been formerly in an hospital, and have acquired the habits of laziness and inactivity, make the slightest ailment a pretence for admission.

We next state the time of remaining in the hospital of each sex during each period.

	Winter Quarter.		Summer Quarter.	
	No.	Average Days.	No.	Average Days.
Men - -	46	25½	49	20½
Women -	38	27	45	20¾

Number of each sex according to the weeks they remained in the house :—

	Winter Quarter.			Summer Quarter.			
	Men.	Women.	Total.	Men.	Women.	Total	Grand Total.
Under 7 days	8	4	12	8	6	14	26
— 14 —	8	6	14	11	11	22	36
— 21 —	5	4	9	15	15	30	39
— 28 —	7	9	16	4	8	12	28
— 35 —	6	6	12	6	2	8	20
— 42 —	7	6	13	2	2	4	17
— 47 —	3	0	3	2	3	7	10
Above 50	2	4	6	1	2	3	9

According to this view, the average time our patients remained was 23 or 24 days, and women remain a day or two longer than men. Com-

paring the two periods, it is evident that our patients during the summer quarter remained about six days less in the hospital than during the winter, which is of great importance in an economical point of view, as it shows that 26 patients were relieved during the summer at the same expence as 20 during the winter. The difference of residence may arise either from a difference in the severity, or rather obstinacy, of the diseases during the respective periods, or from greater skill and attention on the part of the practitioners. Although our averages may serve for comparison with other institutions of a similar nature and under similar circumstances, they are not to be compared with the average of permanent hospitals in full operation, because not only is the period during which the clinical wards are open much too short, but we receive them empty, and we endeavour to leave them empty. A comparison against the whole house or other establishments can only be made fairly by considering the length of residence in the hospital of those patients regularly dismissed during a given period, without regard to their date of admission. Thus, although a patient should be dismissed soon after the period has commenced, he is to be considered as belonging to that period, and the days he has remained in hospital are to be reckoned to it; while, on the other hand, although a patient has been in during the greater part of a

period, he is not to be considered as belonging to it, nor his days of residence added to it, unless he have been actually dismissed before it be concluded. In this respect we shall consider the patients actually dismissed by us.

	Winter Quarter.		Summer Quarter.	
		Days.		Days.
Men -	41	26	37	18.4
Women -	32	28⅔	14	19.1

This presents a still greater difference between our summer and winter quarters, and we shall find that it was owing to the nature of the cases we were obliged to leave undismissed.

	Winter Quarter.		Summer Quarter.	
		Days.		Days.
Men -	6	16.5	12	26
Women -	5	19.	11	26

In these cases, the time of remaining in hospital is reversed, and is to be accounted for by the circumstance, that a fever hospital was established in Edinburgh after the winter period terminated, and before the summer commenced; and hence in summer a greater number of chronic cases was received than in winter, and those that were interesting were retained longer.

The general average of deaths is next to be considered.

	Winter Quarter.			Summer Quarter.			Total.		
	No. Died.		One in	No. Died.		One in	No. Died.		One in
Men,	46	5	9⅕	49	3	16⅓	95	8	11⅞
Women,	38	4	9½	45	2	22½	83	6	13⅚
	84	9	9⅓	94	5	18⅘	178	14	12

Strictly we should have considered only the patients whose cases terminated during the times our wards were open, but as none of the patients we left died in the hospital, and as we did not receive any convalescents in our wards when the periods began, we are entitled to compare our deaths with the total number of patients admitted. At any rate, the difference of mortality between the winter and summer quarters is very striking, being very nearly as two to one. But this may be merely accidental, for, unless the number of patients be very large, the results are very often singular and unexpected. Thus weeks shall elapse without a death, and then several happen together, after which a fortunate period shall follow.

We shall next consider the patients according to the diseases with which they were afflicted, and here we shall follow Dr Cullen's nosology, except in regard to the cutaneous affections, when we take Dr Willan for our guide.

Intermittent fevers are rarely seen in this place, being scarcely ever generated, and not very frequently imported. During the winter we had one, and in summer three, all very slight.

	Profession.	Age.	Adm.	Dism.	Event.	Time.
No. 1, A. M'L.	Labourer	32	27 Jan.	1 Feb.	cured	6 days.
2, R. K.	Weaver	19,	15 May,	27 May,	cured	12
3, D. D.	Labourer	34,	22 May,	15 June,	cured	23.
4, D. M'B.	Invalid	40,	25 June,	1 July,	cured	7

The whole patients were men, who had been out of Scotland, and, except among reapers who

go to England, we never see a female affected with intermittent.

No. 1. had had a severe quotidian, ten years ago, of nine months duration, and five weeks ago it returned with the same type, and he had a daily fit of two hours, commencing at 11 A. M. except for the two days before admission. In the case-book I find no mention of the cause of his first illness.

No. 2. was a native of a fenny part of Lancashire, but was first affected in Glasgow, 18 weeks after leaving home for want of employment. No. 3. had been affected with intermittent at Chatham, 4 years before, and No. 4. had had it severely at Walcheren in 1809

No. 1. was cured, without the aid of medicine, by the mere comforts of the Hospital, and had no paroxysm after admission. No. 2. got only laxatives and antimonial diaphoretics. No. 3. was a more severe case, and was successfully treated by laxatives, a blister to the nape of the neck on May 23d, and Pulv. rhœi et Mist. cinchon. June 6. No. 4. yielded at once to Fowler's solution.

The following tables shew the circumstances of the cases of continued fever which occurred in our wards.

Cases of Fever in Men in November and December 1817, *and January* 1818.

N.	Name.	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
1	T. S.	16		Contagion	Nov. 6	Nov. 8	Nov. 18	D. 13	36	Cured
2	M. G.	40	Labourer	Wet	Nov. 4	Nov. 8		N. 16	9	do.
3	T. A.	24	Weaver	Contagion	Nov. 3	Nov. 8	Nov. 16		—	
				Relapse	Nov. 20		Dec. 4		—	
				Relapse	Dec. 5		Dec. 11	D. 25	48	do.
4	H. G.	44	Labourer	Unknown	Nov. 3	Nov. 8	Nov. 17	D. 20	41	do.
5	W. K.	30	Porter	Cold & intemp.	Nov. 3	Nov. 10	Dec. 16	D. 8	29	do.
6	J. M'D.	45	Porter	Cold & fatigue	3 wks. b.	Nov. 11	Nov. 11	N. 25	13	do.
7	G. S.	8		Contagion	Nov. 7	Nov. 12	Nov. 17	D. 13	32	do.
8	J. S.	5		Contagion	Nov. 4	Nov. 12	Nov. 17	D. 13	32	do.
9	J. R.	41	Mason	Fatigue & cold	14 days b.	Nov. 13	Nov. 10	D. 22	41	do.
10	A. S.	58	Labourer	Unknown	Nov. 2	Nov. 13	Nov 15	N. 24	12	do.
11	A. B.	43	Wright	Unknown	14 days b.	Nov. 26	Nov. 27	N. 28	3	do.
12	A. W.	53	Shoemaker	Cold	14 days b.	Dec. 5	Dec. 21	Jy. 10	37	do.
13	P. MA.	50	Saddler	Unknown	Dec. 6	Dec. 11	Dec. 20	J. 12	33	do.
14	WMA.	25	Servant	Contagion	Dec. 2	Dec. 11	Dec. 18	J. 5	26	do.
15	W. R.	35	Labourer	Cold & wet	14'd. b.	Dec. 14	Dec. 16	J. 6	24	do.
16	W. T.	32	Tailor	Unknown	8 d. b.	Dec. 15	Dec. 26	J. 26	43	do.
17	J. F.	26	Policeman	Relapse		Dec. 16	Dec. 29	J. 20	36	do.

Notes to Fever Cases according to their Numbers.

1. Brother to No. 7 and 8. Mother died three weeks before of fever. Case simple, but marked. Pectoral after the 15th November. Treatment, purgatives and afterwards wine.

2. Case cephalic, slight. Conv. regular Treat. laxat. tepid washing.

3. Case anomalous, cephalic. P. slow; h. moderate. Conv. slow, irregular; obstinate headach; rigors 25th and 26th Nov.—Treat. arteriot 3vi. Nov. 10.—Blisters, issues, tonics and laxatives Hirud. xii. capiti, Dec. 10.

4. Convalescent on admission.

5. Incoherent delirium. Arteriot. 3vi. Vin. rubr. 3viii. Nov. 11.—Arter. 3vi. Nov. 12.

6. Slight pectoral. Treat. Anod. demulcents.

7. and 8. Brothers to No. 1. Cases simple. Conv. regular Treat. laxatives.

9. Convalescent from fever on adm., but a large abcess formed on the right side of the thorax; opened 20th Nov.—Treat. venesect. purgatives, antiphlog.

10 Pectoral, with sore throat; slight. Conv. regular. Treat. blister, demulcents.

11. Convalescent on admission.

12. Fever low; cough and dysentery.

13. Father of No. 14. On admission stated that he knew no cause for his disease; but on inquiry, fever had been in the family for eleven weeks. Fever severe, cephalic; vomiting and hiccough singultus. P. frequent, full; temp. high; thirst intense. V. S. 3x. Dec. 12.—3viii. Dec. 15.—3x Jan. 6.—Calomel. antim. saline purg.

14. Son to No 13 Servant in an opulent family in the country, where there was no fever; assigned no cause, but had visited his father a fortnight before, in whose house fever was Headach; cough; p. frequent, full. Bled before admiss. Hirud. vi. capiti, Dec. 16. V. S. 3vi Dec 18.—Purgatives.

15. From Shoemakers' Close, Canongate, where fever has been very common. Severe pain in the back of the neck and head, and afterwards of right side, with cough. Hirud. vi. temp. 18th Dec.—Vesicat. nuchæ, 20th Dec.—Sinap. coll. 21st Dec.—V. S. 3x. 24th Dec.—Vesicat pect. Jan 1st.

16. From Blackfriars' Wynd, where he knows of no fever existing Cephalic, pectoral; delirium first low and muttering; then high, succeeded by sopor. V. S. 3viii. 16th Dec. Lavat. frigid. Vesicat. Purgatives.

17. Delirium, Dec. 20.—Maniacal, Dec. 22.—Mind collected, Dec. 30.—Calom. antim. Dec. 17.—Vin. 3vi. Dec 21.—Ol. tereb. 3i. Dec. 22.—Headach; hirud. viii. temp.—Intr. vin. Jan. 3.—V. S. 3xii. Jan. 4.—Vesicat cap. Jan. 6.—Periodical headach; sinap. potass. Jan. 12. Vesicat pone aurem sinistram, Jan. 16. Case, Appendix, No. IX.

N.	Name	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
18	A. B.	22	Farm servt.	Cold & fatigue	12 d. b.	Dec. 22	Dec. 30	Fe. 1	41	do.
19	D. D.	34	Seaman	Contagion	Dec. 24	Dec. 30	Jan. 2			
				Relapse	Jan. 9		Jan. 25	Left		
20	J. L.	53	Shoemaker	Cold & wet	Dec. 28	Dec. 31	Jan. 2		3	Died
21	R. C.	35	Servant	Cold & wet	Dec. 25	Jan. 2	Jan. 9	J. 15	14	Cured
22	A. C.	17	Seaman	Cold & wet	8 d. b.	Jan. 4	Jan. 12	J. 18	15	do.
23	J. M'E	22	Labourer	Unknown	8 d. b.	Jan. 12	Jan. 13	J. 17	5	do.
24	P. H.	29	Shipwright	Contagion	Jan. 5	Jan. 13	Jan. 19	F. 1	20	do.
25	J M'L	26	Labourer	Contagion	Jan. 2	Jan. 16	Jan. 18	F. 1	15	do.
26	J. M.	23	Labourer	Contagion	Jan. 15	Jan. 18	Jan. 21	Left		do.
27	W. B.	18	Servant	Contagion	Jan. 17	Jan. 20		Left		do.
28	J. C.	36	Brewer	Contagion	Jan. 27			Left		do.
	Cases of Fever in Women in November and December 1817, *and in January* 1818.									
29	J. S.	13		Unknown	Nov. 1	Nov. 8	Nov. 11	D. 1	24	Cured
30	W. F.	45		Unknown	Oct. 31	Nov. 8	Nov. 13	D. 11	34	do.
31	M. F.	48		Unknown	Oct. 30	Nov. 8	Nov. 12	D. 2	25	Dcsd.
32	S.M'F.	20		Cold and wet	Oct. 25?	Nov. 8	Nov. 9?	D. 15	38	Cured

18. Brother to No. 27. Violent delirium, requiring restraint on admission. Eruption of ecthymata on Jan. 5, and lichen on Jan. 12, during convalescence.—V. S. 3xii. before admission.—V. S. 3xii. Solut. antim. Vesic. capiti, Dec. 23.—Vin. Jas. omn. hora, Dec. 25. —Pulv. camph. Dec. 27.—Vin. 3iv. indies, Dec. 29.

19. Severe gastric. P. nat.—Emet. Dec. 31. V. S. 3xii. Jan. 1.—Eruption on ears and wrists, Jan. 4.—Rigor and vomiting, Jan. 9.—Accession of fever 15th Jan. with much flatulence, and sopor followed by debility. Wine hurtful 14th, 17th.—V. S. 3xiv. Jan. 20. —Wine beneficial, Jan. 22.—Eruption of lichen simplex, Jan. 31.

20. Pulmonic typhus, fatal. Great difficulty of breathing, insensibility. Hirud. viii. temp. sol. salina, Dec. 30.—Sulph. zinci.—vesicat.—pect. enem. purg. Jan. 1.

21. Pulmonic typhus, with hæmaturia. Convalescense regular. Vesicat. Jan. 2.—V. S. 3viii. Jan. 4. Case, Appendix, No. VIII.

22. Cephalic and pulmonic; sopor. Conv. regular. V. S. 3x. Jan. 4. Vesicat. sterno, Jan. 5.

23. Slight case.

24. Severe affection of fauces resembling angina maligna and erythematic eruption. Convalescence regular. V. S. 3xv. 13th Jan.—Vesicat. coll. 14th Jan.—Porter.

25. Severe case. Cephalic, much benefited by V. S in a late stage of the disease.—V. S. 3x. Jan. 16.—V. S. 3xii. Jan. 17. Case, Appendix, No. VI.

26. Severe case, pulmonic. From Shoemakers' Close; had visited his mother in fever in the Hospital. V. S. 3xii., but fainted when 3vi. were taken. 19th Jan.—V. S. 3xii. vesicat. pect. 19th Jan.—Vesicat. pect. 22d Jan.—Relapse. Headach, V. S. 3xviii. 31st Jan.— Vesicat. pect. 1st Feb.—Decided crisis, Feb. 17.—Dismissed cured, March 2.

27. Brother to No. 18. Another brother and mother also infected; mother died. Pulmonic, cephalic, gastric. Without very great pain of chest, the breathing was irregularly performed, as if, from indolence, the muscles were about to suspend their action. Sopor, V. S. 3xii. Blood flowed very black and viscid, and coagulated as it touched the cup, Jan. 21.—V. S. 3xii. Blood more fluid, slightly buffy. Vesicat. pect. Emet. Jan. 22.—Vesicat. sterno. Jan. 24.—Relapsed, Feb. 18.—Decided crisis, Feb. 21.—Cured.

28. Affected while in Hospital for disease of the heart. Very frequently bled before the accession of fever.—V. S. 3xii. Jan. 27.—Convalescent, Feb. 5. Case, No. I. Appendix.

29. Case simple. Convalescence regular. Laxatives. Mist. cinchon.

30. Pulmonic, seemed convalescent until Nov. 14, when she eat meat at dinner greedily, and on the 16th accession of fever, with severe rheumatic pains of her joints. Treated with pulv. ipecac. et opii. Pil. calomel. et opii. Pulv. cinchon.

31. Pulmonic, dysenteric. Was bled before admission. Pulv. ipecac. Mist. sal. diaph. Steak. Pil. rhei. Tinct. Bonpland. Pil. theb. Phos. sod. Mist. catech. theb. Cough. Nov. 27.—Troch. Glyc. cum lactuc. Went home very ill, and died two days afterwards.

32. Pulmonic. Convalescent. Vomiting and diarrhœa, Nov. 18.

N.	Name.	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
33	A. M'G	26		Contagion	Nov. 5	Nov. 10	Nov. 14			
				Relapse	Nov. 20		Nov. 26	D. 1		
				Relapse	Dec. 3	Dec. 6	Dec. 9	D. 18	39	Cured
34	G. G.	26		Relapse	Nov. 2	Nov. 10	Nov. 16	D. 8	29	do.
35	A. D.	18	Unmarried	Unknown	Nov. 10	Nov. 12	Nov. 17			
				Relapse	Nov. 25		Dec. 1			
				Relapse	Dec. 3		Dec. 14	D. 22	41	do.
36	M. M.	24	Servant	Contagion	Dec. 7	Nov. 12	Nov. 21	J. 7	57	do.
37	M. H.	21		Cold and wet	Nov. 9	Nov. 22	Dec. 1	D. 13	22	do.
38	H. S.	29	Wet nurse	Unknown	Nov. 14?	Nov. 26		D. 17	22	do.
39	A. W.	25		Unknown	Nov. 26	Nov. 27		D. 1	4	do.
40	J. D.	22		Contagion	Dec. 1	Dec. 4	Dec. 16	J. 27	23	do.
41	M M.	33	Hos. nurse	Contagion	Dec. 3	Dec. 11	Dec. 14	D. 29	19	do.
42	M. D.	25	Married	Unknown	Dec. 4	Dec. 13	Dec. 16	D. 22	10	do.
43	R. F.	69		Contagion	Dec. 1	Dec. 16		J. 1	16	Died
44	J. S.	25		Cold and wet	Dec. 10	Dec. 16	Dec. 24	J. 17	31	Cured
45	B. H.	24		Cold and wet	Dec. 9	Dec. 18	Dec. 23			do.
				Relapse	Jan. 20?		Dec. 24	J. 26	40	do.

33. Pulmonic. Before admission seven cupfuls of blood taken from the arm on Nov. 9th, which relieved the headach for a short time. Catam. flowed on admission, and continued to Nov. 15. Mist. muc. anod.

1st Relapse, retching, cough, sweating. Pulv. ipecac. Mist. salin. diaph. Mist. muc. acid. anod. Catam. reappeared Nov. 27, and ceased next day. Dismissed apparently well, Dec. 1.

2d Relapse, returned Dec. 6. Severely affected with fever, sickness, and cough, continuing to Dec. 13. Mist. muc. acid. anod. Vesic. pectori.

34. A relapse. Had been dismissed convalescent from fever 14 days before, but was immediately exposed to cold and wet, and relapsed. Was not confined to bed till Nov. 24. Pulmonic, Gastric. Diarrhœa for several days after Nov. 21. Mist. muc. acid. anod. Haust. anod. Mist. catechu.

35. Catam. on admission to Nov. 18. Agrypnia. Haust. anod.

1st Relapse, fever, rheumatic pains, vomiting. Pil. theb. Mist. mucil. acid.

2d Relapse, fever, nausea, headach, and rheumatic pains. Pulv. ipecac. Mist. salin. ammon. Lav. capitis frigida. Haust. anod. Convalescence slow with tremor.

36. Cephalic, Gastric. Pulv. ipecac. Haust. anod. Solutio emetica. Arter. 3vi. Nov. 18. Sequelæ epigastric, distention, palpitations, pain of breast. Pil. hyd. V. S. 3xiii. Jan. 1. Hirud. 3xii. epigast. Jan. 3.

37. Cephalic, Pulmonic, Arter. 3vi. Nov. 23. Haust. anod.—Delirium. Arter. 3vi. Nov. 29. Convalescence regular.

38. Very slight, convalescent.

39. Very slight.

40. Fever moderate. Convalescence slow and interrupted. Pain of head, back, and right side. Bled before admission. Pulv. ipecac. Haust. anod. saline purgatives. Lav. cap. frigid.—Pain of breast. Vesicat. pect. Dec. 25.—Pil. hydrarg. Dec. 28. obstinate pain of epigast. V. S. 3viii. Nov. 31.—V. S. 3viii. Jan. 1.—Cucurb. cruent. epigastrio, Jan. 7.—Vesicat. epigast. Jan. 11.

41. Night nurse of women's clinical ward. Pain of head and spine, V. S. 3viii. Dec. 12. Convalescence regular.

42. Gastric moderate. Sol. salin. ant. Enem. domest.

43. Petechial, gastric, V. S. 3iv. Dec. 23.—Convalescens 26.—Fetid and fatal diarrhœa 28. Died 23 January. Case, Appendix, No. XIV.

44. Cephalic, gastric. Pulv. ipecac. V. S. 3viii. Dec. 19.—Pulv. antim. Lav. cap. frigid. Vesicat. cap.—Convalescent Dec. 26. Left parotid swelled, Jan. 1; right Jan. 2. and each continued affected two days.

45. Severe. Cephalic, gastric. muttering delirium, coma, cutaneous efflorescence. Hirud. vi. temp. Dec. 19.—Lav. frigid. Vesicat. cap. Dec. 22.—Remission, Dec. 23.—Lichen simp. Jan. 1.—Relapse, pulmonic, gastric. Pulv. ipecac. Jan. 20.—Sol. salin. antim. Jan. 22.—Hirud. vi. temp. Jan. 23.

N.	Name.	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
46	J. M'N.	46		Contagion	Dec. 14	Dec. 22	Dec. 26	J. 22	32	Cured
47	J. S.	34		Cold and wet	8 wks b.	Dec 22	Dec. 27	F. 1	43	do.
48	A. H.	20		Relapse	8 days b.	Dec. 31	Jan. 4	Left		do.
49	H. W.	16		Unknown	9 days b.	Jan. 3	Jan. 13		11	Died
50	C. M'G.	28		Cold	14 days b.	Jan. 8		J. 30	32	Cured
51	N. B.	28		Cold and wet	14 days b.	Jan. 9		J. 18	8	do.
52	J. B.	18		Contagion	Jan. 10		Jan. 23	Left		do.
53	M. B.	21		Contagion	Jan. 3	Jan. 14	Jan. 18			do.
				Relapse	Jan. 29			Left		do.
54	M. H.	21		Contagion	Jan. 14	Jan. 29	Feb. 1	Left		do.
55	B. S.	33		Contagion	Jan. 21	Jan. 29		Left		do.
56	A. S.	21		Contagion	Jan. 21	Jan. 29		Left		do.

Cases of Fever in Men in May, June, and July 1818.

57	W. C.	18	Seaman	Cold & fat.	6 days b.	May 8	May 18	Jun. 8	32	Cured
58	W. B.	60		Contagion	8 days b.	May 10	May 15			
				Relapse	Mar. 25			J. 21	41	Died
59	J. M'C.	27	Labourer	Unknown	9 days b.	May 11	May 20	J. 15	34	Cured
60	J. M'G.	52		Unknown	6 days b.	May 20		M. 27	8	do.
61	J. O.	28	Labourer	Contagion	5 days b.	May 21	June 4	J. 29	36	do.
62	J. H.	49	Policeman	Unknown	10 days b.	June 3		J. 25	23	do.
63	A. M.	32	Carter	Unknown	10 days b.	June 4	June 13	J. 29	17	do.

46. Cephalic, pulmonic, V. S. 3viii. Dec. 23. Buffy crust one-fourth inch thick. Vesicat. capiti, Dec. 24. Convalescence slow. Eruption of lichen simplex, Jan. 6. Sulphuret. potass. Vin.

47. Attributes her complaints to cold when reaping. Fever irregular, remittent, gastric, said to be of eight weeks standing. Pulse very quick, intermitting. Delirium, Dec. 31. Emet. Pulv. diaph. Vin. Op. Arsenic. Calomel. Sequelæ, boils.

48. Dismissed from the hospital convalescent from fever about a fortnight before, and ascribes her relapse to having got her feet wet the day after she went out. Cephalic, pulmonic; knees and ankles painful and very weak. Progress of disease irregular, and convalescence slow. V. S. 3xii. Jan. 1. Blood very buffy. Dismissed cured, Feb. 9.

49. Violent and fatal case, more resembling those which occur in private practice among the higher classes of society. Menstruation profuse, Jan. 6. Case, No. XIII. Appendix.

50. An Albinos. Case slight.

51. Case slight, gastric, V. S. 3xii. Jan. 10.

52. Patient attacked while in the house for tympanites. See case, No. II. Appendix.

53. Very complicated case; obstinate vomiting; and after the fever declined, pain and loss of power of legs; pain under sternum. Lavatio frigida. Emet. Mist. salin. ammon. Haust. anod. Vin. rubr. Relapse, Jan. 29; crisis, Feb. 18; relapse, March 1; crisis, March 4. Dismissed cured, March 12.

54. Cephalic, rheumatic, pulmonic, low delirium. V. S. 3xviii. Jan. 20. Vesic. sterna. Dismissed cured, Feb. 26.

55. Cephalic, petechial. V. S. 3xx. Jan. 30. Crisis, Feb. 4. Dismissed cured, Feb. 21.

56. Cephalic, abdominal. V. S. 3xvi. Jan. 29. Vesicat. pectori, Jan. 31. Vin. rubr. Crisis, Feb. 6. Dismissed cured, Feb. 13.

57. Cephalic. Pain of head and upper part of neck. Vesic. nuchæ. Mist. salin. ammon. Convalescence regular.

58. Icteric. See case, No. XV. Appendix.

59. Cephalic, relieved by spontaneous epistaxis, May 12. Laxant. salina. Mist. salin. ammon. Pulv. Rhei. Critical diarrhœa. Convalescence regular.

60. Slight case. Diarrhœa. Mist. salin. ammon. Pulv. Rhei. Haust. anod. antim.

61. Severe on admission, immediately remitting, but about the 20th he suffered a fresh accession of high fever, relieved by a critical perspiration during the night of June 3d.

62. Maniacal. Hirud. iii. front. before admission.—Epispast. ii. temp. Jalap. cum calom. June 3d.—Hirud. viii. capit. June 5.—Art. 3xx. June 7.—Hirud. capit. June 10.—Hæmorrhagy from temporal artery. June 16.—Hæmorrhagy with relief, June 21 and 22.

63. Gastric, sore throat, sweating. Pulv. Rhei. Mist. diaph. salin. Haust. anod. Acid. sulph.

N.	Name.	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
64	J. M.	15		Heat & fat.	7 days b.	June 13	June 20		25	Cured
65	J. A.	30	Wright	Wet & exhaus.	10 days b.	June 14	June 18	July 8	5	Died
66	D. O.	29	Shoemaker	Unknown	6 days b.	June 16	June 26		11	do.
67	A. J.	14	Upholsterer	Heat & fat.	8 days b.	June 21		J. 25	6	Cured
68	W. C.	29	Corkcutter	Fatigue		June 23	June 28	Jy. 10	18	do.
69	C. J.	17	Baker	Unknown	3 days b.	June 30	July 21	Jy. 29	31	do.
70	D. C.	21	Labourer	Unknown	5 days b.	July 2		July 8	7	do.
71	J. R.	22	Labourer	Unknown	7 days b.	July 4	July 14	Jy. 27	24	do.
72	J. C.	23	Ostler	Unknown	5 days b.	July 9	July 12	Jy. 16	8	do.
73	D. W.	20	Joiner	Contagion	10 days b.	July 11	July 14	Jy. 15	6	do.
74	A. J.	18	Weaver	Contagion	5 days b.	July 13	July 25	Left		
75	J. W.	24	Seaman	Distress	9 days b.	July 13	July 17	Jy. 29	17	do.

Cases of Fever in Women in May, June, and July 1818.

76	J. A.	56		Unknown	10 days b.	May 7		Jun. 1	27	Cured
77	A. H.	27	Shoebinder	Contagion	8 days b.	May 9	May 12	M. 29	17	do.

64. Had fever six months before.—Cephalic, pulmonic. Epispast. pect. Vap. aq. tepid. Lav. tepid. Mist. mucil. Hirud. vi. capit. June 19. Hirud xii. temp. July 6.

65. See case, No. XI. Appendix.

66. See case, No. XII. Appendix.

67. Slight. Laxatives.

68. Patient confused, and unable to give a distinct account of himself on admission. Hirud. vi. temp. June 23. Lavatio capit. frigid. Convalescence regular.

69. Cephalic. Case of considerable severity, and in some respects anomalous. Without great quickness of pulse; the temperature of his skin remained long very high, and his muscular strength was so little affected, that during the second week of the fever he voluntarily went to walk in the airing ground every second day, and although remarkably listless, and with a hot surface, he was much disposed to be out of bed and dressed. His appetite was also excessive during the existence of the disease.

The following is the state of his pulse and heat on each day of the disease.

Days.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Pulse,	100	82	92	92	78	82	80	90	76	80	80	104	74	112	94	100	100	92	90	92	88			
Heat,	103	104	104	102½	101½	102	103	104	100	100	101		100	101	101	102	103	102	102					

He got an emetic on admission. Cucurb. cruent. nuchæ. 3xii. July 1. Intolerance of light relieved by Hirud. viii. temp. July 13. On the evening of the 20th day of his fever there was a considerable accession. Pulse rose to 100, and heat to 104, but the headach was relieved by hirud. xii. temp.

70. Cephalic, pulmonic. Bled before admission. Relieved by cupping, July 3d.

71. This man was brought to the hospital from the police prison, where he had been confined for three weeks on bread and water, and where at that time there was no fever. He was a marked case of what might be called low nervous fever, with great depression, hot, but pale skin and squalid appearance. He got speedily well with cold washing and free air, almost without medicines.

72. Petechial fever, with yellowness of skin. Hirud. xii. July 4. V. S. 3xii. July 10. Purgantia. Case, Appendix, No. IV.

73. Was admitted on the 11th day when the fever was already declining, but the temperature of his skin was still 104, and continued as high till a day or two before he left the hospital. The whole treatment consisted in shaving the head, an enema, and tepid pediluvium.

74. Is detailed in the Appendix, No. III. as an example of our summer fever.

75. Cephalic, great increase of temperature. Lavatio frigida. Hirud. xii. temp. July 5. Pediluv. tepid. V. S. 3x. with great benefit, July 13. Convalescence good.

76. Pulmonic. Ten months before, this woman had been long in Infirmary for fever. Laxantia. Emollientia.

77. Gastric. Enem. Pulv. ipecac.

N.	Name.	A.	Profession.	Cause.	Began.	Admitted.	Crisis.	Dism.	Days.	Event.
78	H. B.	38	Servant	Unknown	14 days b.	May 12	May 19	J. 18	37	Cured
79	M. W.	22	Straw plait.	Contagion	6 days b.	May 12	May 17	J. 2	21	do.
80	J. D.	24	Out-servt.	Contagion	10 days b.	May 13	May 21	J. 8	26	do.
81	M. M'L.	26		Unknown	6 days b.	May 13	May 29	J. 25	43	do.
82	C. R.	14	Servant	Contagion	5 days b.	May 19	May 26	J. 4	16	do.
83	G. J.	45	Married	Unknown	11 days b.	May 23	May 28	J. 18	27	do.
84	J. W.	26	Servant	Unknown	3 days b.	May 27	June 2	J. 4	8	do.
85	J. M'J.	28	Servant	Unknown	10 days b.	June 4	June 10	J. 16	12	do.
86	J. H.	23	Servant	Relapse	6 days b.	June 10	June 19	Left		
87	E. C.	22	Servant	Unknown	5 days b.	June 20		Jy. 11	21	do.
88	M. T.	25	Servant	Unknown	2 days b.	June 27	July 2	J. 8	11	do.
89	M. S.	31	Married	Intemp.	3 days b.	July 2	July 8		66	Died

76. Low delirium. Mist. salin. ammon.—Pulmonic complaints supervened. Cucurb. cruent. Vesicat. pect. May 28. Acid. sulph. Episp. pect. June 1st. Inhal. vap. aq. V. S. ʒvi. June 4.

79. Cephalic, had formerly a nephritic affection, and her catam. which had been suspended for three months, returned three days before her fever was observed. Pulv. ipecac. Vesic. nuchæ, May 15th. On the decline of her fever, her nephritic complaints returned.

80. Cephalic, pulmonic. Slept nine weeks before admission with a girl with fever, since which she has never been thoroughly well. Vesicat. nuchæ, May 18.

81. Cephalic, pulmonic, gastric, et enteritic. Bled before admission. V. S. ʒviii. May 14. V. S. ʒviii. May 15. Haust efferv. Vesicat. sterno, May 30. Inhal. vapor. aquæ, June 2d. Episp. lateri, June 4. Ascarides, gastric symptoms. Convalescence slow and irregular.

82. Cephalic. Purgant. Vesic. nuchæ. Mist. salin. ammon.

83. Severe case. Had experienced a similar attack a year ago. Vin. ʒiv. indies, May 24. Cough. Mist. Mucil. Haust. anod. ant. May 29. Great deafness caused by swelling of the parotid glands.

84. Case moderate.

85. Cephalic, pulmonic. Almost convalescent when admitted. Pot. acid. veget.

86. This woman had only been dismissed a week after having been many weeks in hospital with protracted fever, her present attack was also severe, and general. Her head, lungs, and stomach being all greatly affected, and after the fever had subsided she remained confined to bed with obstinate headach, pain of side, vomiting, and an almost paralytic rheumatism of her legs.

87. Cephalic, abdominal, with yellowness of skin. Had yellowness of skin for three or four years after jaundice, but not for five or six years past. V. S. ʒxviii. June 27. Catam. adsunt. June 25. Hirud. xii. temp June 30. Cal. et opium.

88. Cephalic. Had a severe wound of the head eight months ago. Cucurb. cruent. nuchæ, ʒxvi. June 22. Hirud. vi. fronti. June 23. V. S. ʒxii. June 25. Cuc. cruent. ʒxviii. pect. June 27. Emet. June 29. Arter. ʒxii. July 1, with frequent purgatives. Case, Appendix, No. V.

89. Fatal and altogether anomalous. Case, Appendix, No. X.

In drawing conclusions from these tables it must be remembered, that during the winter months there was no fever hospital, the number of fever cases which presented themselves was therefore very great, and of them we had our choice; while during the summer months, most of the pure fevers were sent at once to Queensberry House, and we had comparatively few cases, and those rather anomalous, in our choice. We admitted a larger proportion of fever cases in winter than in summer; and it has been generally stated, that the continued fever of this country declines or becomes less frequent during summer, but our experience during this epidemic does not confirm this. For although the number of fevers has frequently fluctuated, yet no regular declension or increase of the epidemic has been observed, and the fever has prevailed as much during a summer of almost tropical heat, as during a raw and cold winter, and in both seasons its character as referable to typhus or synochus was nearly alike.

It affects both sexes in nearly equal numbers, and if we were to judge from our patients, in nearly an equal degree, as to danger; but this is not general, for very few women comparatively die of our fever.

Our epidemic fever affected few individuals of a better class of society; but when it did, it was, as also observed in other places, more severe and dangerous. The conclusion from this fact is, that the higher classes were either less exposed to the exciting causes, or were more able to resist their

operation, but that when it took effect, its action was more violent. The danger was evidently increased by the occurrence of the fever, in a system capable of great reaction, while in the debilitated and depressed bodies of the poor, it run its period with comparatively little tumult.

In the column allotted for the names of the patients, I have thought it sufficient to insert the initials for the sake of reference, and to spare room.

The next column expresses the ages of our patients, and we had them from 5 to 69, but they are particularly stated in the following abstract.

	Winter.			Summer.			Total.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Under 10 years,	2	0	2	0	0	0	2	0	2
20	3	4	7	5	1	16	8	5	13
30	8	17	26	9	8	17	17	26	43
40	6	3	9	2	3	5	8	6	14
50	5	3	8	0	1	1	5	4	9
60	3	0	3	1	1	2	4	1	5
60 and upwards,	0	1	1	1	0	1	1	1	2
Average, . .	32	27½	29¾	26½	29 1/14	27¾	30⅜	28¼	29

This in itself furnishes no result as to the age most subject to fever, as it is perhaps merely the average age of hospital patients. To ascertain this, we may compare it with the average age of the patients affected with other diseases.

	Winter.		Summer.		Total.	
	No.					
Women,	11	24⅝	31	19⅜	42	20½
Men,	18	34	31	40½	49	38
	29	30¼	62	30⅛	91	30

From this we may conclude, that the average

ages of fever patients of both sexes, does not differ materially from that of other patients, but that of other diseases the male patients were considerably farther advanced in life than the female.

The third column contains the profession or occupation of the patient. I should not have had to regret that this is so incomplete, if, instead of adding this circumstance from the case books, in which it was often omitted, from its not seeming at the time to be of importance sufficient to be recorded, we had made our entries into blank schemes, while the patients were still in our wards. In regard to the women, in particular, our books furnish little information; but it would be desirable to know of them whether they were married or single, whether their occupation was sedentary or active, in confined apartments or in the open air, and whether the servants were in place or out of place.

A fourth column should be allotted for the residence of the patient, especially during the prevalence of epidemic and contagious diseases, and in a fever hospital it should never be omitted. It should form a record by which we might trace with certainty the commencement and introduction of such diseases, their progress, and their decline; their favourite haunts, if we may use the expression, and should furnish the magistracy and police with information by which they may be enabled to take measures to prevent the introduction, or at least to counteract the diffusion of contagious diseases, such as small-pox.

The next column contains the cause to which each patient ascribed his disease. This of course cannot be always correct, but it shows the opinions of the people in regard to the production of fever, rather than the true cause, and in many cases we find them ascribing their fever to cold and fatigue, when they had been fully exposed to the operation of contagion, while in other cases contagion is given as the cause, while it may have arisen from other hurtful agents. This is not a place to enter into any disquisition concerning the contagious nature of our epidemic fever, which I consider as being fully established by universal experience. We had instances of several members of a family, sometimes the whole, coming in in succession, Nos. 1, 7, and 8; of a father and a son, although residing in different places and leading a very different life, as in Nos. 13 and 14, where the former is an Edinburgh saddler, and the latter a footman in a family of rank in the country; of one of our night-nurses becoming a patient with fever, No. 41, and of two of our patients for other diseases, being attacked with fever while in our wards, Nos. 28 and 52. At the same time, it does not follow that any person seized with fever, who has been exposed to contagion, derives his disease from that source. In some instances, fever, apparently arising from other causes, communicated itself to other individuals in the same family, Nos. 18 and 27. On the subject of the origin and propagation of fevers, and of the means

of preventing them, chiefly as a subject of medical police, I may take another opportunity of enlarging.

The date of the commencement of the disease in each patient, so far as we could learn it, is recorded in the next column, and in the succeeding one the date of admission. In a general or fever hospital, these dates, when regularly continued, furnish the record of the rise, height, and decline of the epidemic. The date of the commencement of the disease, compared with the date of admission, shows the period of the disease at which the patients apply for admission, and in regard to our epidemic fever the average seems to be on the eighth day. During the first seven days, although obliged to give up work, they still hope that their headach and uncomfortable feelings will be removed, by rest and quiet and domestic treatment; but an exacerbation on the evening of the seventh day puts an end to their hopes, and convinces them that the disease is no longer to be trifled with, and next morning they come to the hospital. It must however be admitted, that it is often difficult to ascertain the date of the commencement of a disease. Thus, in No. 46, the patient ascribed the cause of the fever to some gas fumes which she accidentally encountered; but there is no doubt of her fever having already begun, which rendered her susceptible of the impression of a cause which would not have been noticed at another time.

A column is allotted to the date of the crisis;

but it must be understood that this was often very uncertain, for although in some cases it was sufficiently marked, and even attended by a critical discharge, most frequently by perspiration, still it was often almost imperceptible, the symptoms remitting one after another; but I have endeavoured to mark that as the critical day, on which the force of the fever seemed to be broken, and the remaining symptoms were those of debility only. This column should also be filled up at the bedside of the patient, as the critical change of fever is often more characterized by a certain indescribable alteration of physiognomy than by any change in the state of the functions capable of being expressed in language.

In the original table, columns were allotted to an epithet descriptive of the character of the disease, and to the sequelæ, when any occurred, but I was obliged to omit them for want of room on the printed page, and have preferred subjoining a note to each case, very briefly pointing its nature, the principal changes which took place in its progress, the chief remedies employed, and in some instances I have added dates.

I have not used Cullen's distinction of Synochus and Typhus, because I do not believe that the distinction exists in nature. I have never seen an instance of typhus fever according to his definition. All our severe fevers begin with excitement and terminate in debility, or are instances of synochus; although, in truth, they are the identical disease from which Cullen drew his description

of typhus, and are genuine examples of the only typhus fever which exists; but this is not a place for nosological disquisitions.

I have preferred distinguishing the cases by the epithets cephalic, pulmonic, gastric, enteritic, hepatic, &c. from the principal organs affected; for, although frequently the functions of all were somewhat disturbed, the force of the disease seemed generally to bear upon one or two, and sometimes upon different organs in succession.

In almost every instance the head was greatly affected. The fever commonly commenced with intense headach and intolerance of light and noise, succeeded by torpor, low delirium, or maniacal excitement. The rest of the nervous system was affected at the same time. In the first period severe pain was felt along the whole course of the spine, especially at the nape of the neck and at the sacrum; the limbs were sore, as if bruised, and often a rheumatic or paralytic state of them remained for some time after the fever had terminated.

The lungs were very commonly affected, though not always. At the beginning of the fever, next to the headach, and often as aggravating it, the cough was commonly the most troublesome symptom, but sometimes the cough and pulmonic symptoms did not supervene until the cephalic symptoms remitted. In some cases, however, the lungs were remarkably affected, and so as to give a peculiar character to the disease, rendering the title of pulmonic fever appropriate. I am convinced

that the disease described by some authors as pneumonia typhodes, and stated to have been at times epidemic, was in fact continued fever, with great affection of the lungs. I fell into this mistake in regard to the first example of it which occurred to me, and the patient was cured of continued fever under the idea that he was affected with pneumonia, (Appendix, No. VII.) But the diagnosis is commonly easy. In pneumonia the fever is symptomatic, depends upon the existence of the local affection, and declines when it is removed, while in typhus it is idiopathic, is rather the cause of the local affection, and continues its regular course after it is removed. The same principles of diagnosis serve to distinguish general fever with other local affections from similar local diseases attended by fever.

In every case the stomach was more or less affected from the first, as indicated by anorexia, nausea, or vomiting, and pain at the epigastrium, which was generally tender or painful to the touch, perhaps arising from increased sensibility of the peritonæum. At the same time there was little derangement of the functions of the intestines, so that few of our cases came under the description of enteritic fever, which seems to be that peculiar form of it which is occasionally so fatal in camps and garrisons when fever and dysentery prevail. In these cases the mucous coat of the intestines is chiefly affected, and we saw this in the body of an old woman who died of dysentery, as a consequence of the disease,

No. 43. In another fatal case, No. 66, there was great distention of the abdomen, or meteorismus. The catamenia were not interrupted by the accession of our fever, but, on the contrary, they returned in several cases where they had previously been suppressed for some months; had their periods shortened in some cases; in all were rather increased in quantity, and in one fatal case, No. 49, were enormously profuse.

The liver was less frequently affected than from the descriptions of some epidemics might have been expected; but a case, which ultimately terminated fatally, might have almost been called jaundice, No. 58; and one or two others, Nos. 72 and 87, had a sufficient tinge of the skin to entitle them, in common language, to the denomination of yellow-fever, which, however, must not be confounded with the yellow fever of the Antilles, a disease of a totally different nature. The cases in which the skin was coloured, all occurred in the summer; and in the same season the stomach and bowels seemed to suffer most.

In several cases, but particularly in one, the fauces were chiefly affected, so that for some time it remained doubtful whether it was a case of fever or of putrid sore throat. In many cases the principal complaint of the patient was of pains in various parts of the body, and loss of power especially of the lower limbs; and these remained after the fever declined, giving rise to rheumatic and almost paralytic sequelæ, in Nos. 53

and 86. But they also occurred from the very first, and one girl, No. 54, could not be moved, or even have her hand raised, without screaming from pain. In many cases there were petechiæ, or an exanthematous efflorescence on the skin, but we did not find either of these symptoms connected with any remarkable severity of the disease.

The action of the heart and arteries was very variously modified. In the greater number of cases, both the frequency and strength of the pulse was increased during the existence of the fever; in some it was frequent and weak; in others full, but natural as to frequency, in some it was almost natural, or only weak; and in many these circumstances varied during the course of the disease; and, contrary to the common idea of synochus, the pulse sometimes became fuller and stronger in the progress of the disease. In the case of one patient, who was attacked while in hospital, the principal symptoms of his previous disease, viz. excessive action of the heart and arteries, so as to shake his whole body, and even his bed, at each stroke of the pulse, were suspended during the disease, and his pulse became natural in point of strength, and increased in frequency; but after the cessation of his fever, his former disease returned. In the same manner, a very obstinate tympanites disappeared in another patient affected with fever while in the ward, and she even continued free from it for some time after she recovered, but she has again returned to the hospital affected, though in a less degree. The skin was parched in almost every case, but after the crisis, in a few, obstinate perspiration retarded the convalescence. The heat was in most cases increased. In summer it was generally higher than in winter, often reaching to 104 and 105 in the axilla. In one fatal case, No. 66, it remained at 103 for some hours after death.

Of the sequelæ the rheumatic and paralytic affections were most distressing. In some cases the appetite returned very slowly, and in a few great irritability of the stomach remained. In a few cases there supervened parotids or troublesome boils, especially around blistered parts, and at one time, in the beginning of January, many patients were affected with lichen simplex during their convalescence, exciting the suspicion of contagious scabies having got into the wards; but the eruption appeared in both wards, and affected only the convalescents from fever. Relapses frequently occurred, and could often be traced to an error in regimen. They took place at various periods after the decline of the original fever.

The date of dismission is inserted to shew the duration of the disease, and the period of convalescence, and furnishes useful information for the economical management of hospitals.

The number of days our fever patients were in hospital, is expressed in the next column. The following table shows the general results in those dismissed by us:

	Winter.		Summer.		Total.	
Men,	27	25	17	18	44	22½
Women,	21	27⅔	13	21⅓	34	25½
Total,	48	26	30	19⅔	78	23⅔

From this it appears, that men were sooner dismissed than women, and that, in summer, both sexes remained a shorter time than in winter; and, by comparing the table with that of the total cases dismissed, it appears that in this respect there is no great difference between the fever cases, and the others of all descriptions.

The comparative mortality of the fever cases is next to be considered.

	Winter.			Summer.			Total.		
	No. Died.		One in	No. Died.		One in	No. Died.		One in
Men,	28	1	28	19	3	6½	47	4	11¾
Women,	28	2	14	14	1	14	42	3	14
	56	3	18⅔	33	4	8¼	89	7	12⅔

This mortality is certainly sufficiently great, to show the severity and danger of the disease; but the numbers are much too few, and the circumstances of the clinical wards too peculiar to afford a fair average of the rate of mortality. Thus, comparing the deaths from fever with those from other diseases in our wards, it was much less in winter, and much greater in summer, and yet, generally, the fever was milder in summer than in winter.

Of the fatal cases of fever, No. 20 was admitted almost moribund, and never was able to speak to

me after he was put to bed. No. 88 was altogether anomalous, and died in six days after admission. No. 49, 63, and 64, died in the height of the fever, and No. 43 and 58 died of the sequelæ in sixteen and forty-one days after admission. The appearances upon dissection in some of these cases are subjoined to this report.

I might have added a column to indicate the chief means of cure employed in each case, but I could not conveniently condense it into a tabular form. The treatment of the patients under my care was purely antiphlogistic, and it was probably owing to this circumstance that we saw so little of that debility which was so common in these fevers when treated with stimulating and tonic remedies. So far as my observation goes, the debility which occurs in the course of typhous fevers, is always the consequence of, and proportioned to, the previous excitement, and, by reducing the violence of that excitement in the early stages of the disease, by depletion, and the removing of every irritation, we prevent the debility from coming on, at least in the same degree. Some of our patients were able to get out of bed almost as soon as the fever had run its course; and, in none of those who recovered was there any sloughing of the nates arising from long pressure, in consequence of utter inability to change their posture, which used frequently to carry off patients, treated with stimulants, long after the fever had terminated. Opium I gave only as an

anodyne, or diaphoretic, and very sparingly; wine but occasionally, and in small quantities, during the convalescence, and porter sometimes during the same period. Indeed, the patients, although desirous of generous diet to strengthen them, as they supposed, when indulged in it, often confessed that it was too much for them, and were convinced that they recruited faster with slops and ordinary diet. Blisters were the only stimulants I frequently employed, and these often did essential service, especially when the lungs or head were much affected, nor did they ever produce any unpleasant consequence, or assume an alarming appearance.

The treatment, as I have already said, was purely antiphlogistic, and often simple in the extreme. In some cases, the saline mixture, with cold or tepid washing, laxatives, or enemas, when necessary, and an anodyne antimonial occasionally at night, answered perfectly. In others, a much more active plan was pursued, blood was freely abstracted, both locally and generally, and drastic purgatives liberally exhibited, with the most decided advantage. I cannot look back upon the treatment of typhus, in the days of my apprenticeship, without wonder. In those days we, the students, would have shuddered if our teacher had prescribed blood-letting to a fever patient, as if he had ordered him to be put to death; and I have seen the exhibition of a simple saline purgative excite our severe censure. Nor did the

amelioration of the patient after its operation gain any credit to our teacher. In our opinion, every evacuation must be injurious in a disease of indirect debility, for, although the Brunonian doctrines were never recognized as orthodox in our schools, they influenced the opinions and practice of our scholars. It is not my intention to trace the history of the decline of this preposterous doctrine, or of the steps by which we have arrived at a more rational treatment. I shall content myself with saying a very few words of the remedies chiefly employed in the cases under my care.

When active treatment seemed to be indicated by intense headach, pain of neck and loins, suffused eyes, intolerance of light, pain at the pit of the stomach or belly, difficulty of breathing, and a full throbbing pulse, the abstraction of blood was the most effectual remedy. When there was great excitement of the whole arterial system, or several organs were much affected at one time, venesection was preferred, and it was sometimes repeated at a short interval. At first I contented myself with bleedings of ℥viii., but afterwards I became more bold, and frequently ordered ℥xx. to be taken at one time; and I never saw any occasion to regret taking too much, but I have regretted taking too little. I never ventured, however, upon the ℥xl. bleedings, which were practised by others. When the head was principally affected, arteriotomy was

sometimes ordered; but, where local bleeding was indicated, I preferred leeches or cupping. The relief obtained by abstraction of blood was often instantaneous and striking. The headach was removed as if by a charm, and in some instances permanently; but although I am satisfied from the experience of others, that duly employed venesection is capable of cutting short the fever, I am not certain that I was so successful in any of our cases. Indeed, the violence of the fever was sometimes subdued, and it run its course gently and quietly, the patient scarcely seeming more than languid and drowsy. More commonly, however, the relief was only temporary, and in a day or two the headach returned, though with less severity, and now it generally yielded to leeches applied to the forehead. Although bloodletting was most beneficial in the early stages of our fever, there was no period of its course, nor, indeed, of the convalescence, in which it was not occasionally employed, when circumstances seemed to indicate its propriety.

The direct application of cold to the skin by means of affusion or sponging with cold water and vinegar, was almost universally ordered, and its good effects in reducing morbid temperature, and in alleviating the burning sensation of the patient, were unequivocal; but I have no confidence in its being able to cut short a fever actually begun. Whenever it has effected this desirable object, it must have been during the precursory stage, dur-

ing that week of listlessness and chilliness, which frequently precedes the distinct rigors from which we date the accession of the true fever. In cases where the patient suffered from rigors or coldness of the extremities, the pediluvium was of the greatest benefit.

Laxatives and evacuant enemas of every kind were also powerful auxiliaries to the preceding remedies; but, although I did not scruple to use purgatives when indicated, I commonly contented myself with emptying the bowels, and keeping them free, and seldom attempted to counteract the febrile excitement by drastic purging. I found, or thought I found, the lancet and leeches more certain, and more under my control; and I had some fears that the function or structure of the intestines might be deranged by acting upon them too powerfully during a disease which is apt to direct its attack upon any weakened organ.

Emetics I did not find often necessary, as I preferred exciting the stomach to evacuate its contents in the natural direction. With this view, I combined with other purgatives which act upon the intestines, small doses of emetics, such as ipecacuan with rhubarb, or tartar emetic with saline solutions, under the idea that they act especially upon the stomach and upper part of the intestinal canal, and, if they also produced vomiting, it was perhaps beneficial.

Mercury I sometimes ordered as a purgative, in the form of calomel, or the blue pill, but

scarcely gave a trial to what is called the mercurial practice. I was satisfied with the effects of those means I was accustomed to employ, and in moderate cases salivation seemed to me a severe remedy, while in severe cases I preferred agents, whose operation was more certain and speedy.

Cases of other Diseases in both Sexes, and during both periods.

N.	Name.	Age.	Sex.	Profession.	Disease.	Adm.	Dism.	Days.	Event.
1	D. M'L.	45	M.	Carter	Phlogosis Phlegmone	June 30	July 30	31	Cured
2	C. F.	15	F.	Servant	Ophthal. Membran.	June 2	July 6	37	ditto
3	R. W.	29	F.	Servant	ditto	July 6	July 30	25	ditto
4	W. S.	16	M.	Servant	Cynanche tonsill.	Dec. 20		14	ditto
5	J. M.	29	M.	Servant	Cynanch. pharyng.	May 11	June 16	37	ditto
6	J. R.	19	F.	Servant	Pneumonia pleuritis	May 27	June 16	21	ditto
7	P. C.	19	M.	Labourer	ditto	May 27	June 1	6	ditto
8	H. M.	30	M.	Labourer	Pneum. peripneum.	May 17	June 1	16	Relieved
9	A. B.	20	M.	Baker	ditto	May 8	May 27	20	ditto
10	M. J.	18	F.	——	Peritonitis	July 9	left	23	Cured
11	G. J.	18	F.	——	ditto	July 10	July 23	14	ditto
12	A. S.	49	F.	Married	ditto	July 10	July 15	6	ditto
13	G. R.	29	F.	Married	ditto	July 11	left	21	ditto
14	E. M.	27	F.	Married	ditto	July 16	left	16	ditto
15	R. W.	41	M.	Flax-dresser	Hepatitis acuta	July 11	left	21	ditto
16	E. G.	21	F.	Servant	Hepatitis chronica	Nov. 23	left	70	ditto
17	W. J.	12	M.		ditto	May 17	June 26	40	Relieved
18	E. F.	39	F.	Servant	ditto	June 29	left	32	Better
19	J. M'D.	29	F.	Servant	Rheumat. acutus	Dec. 4	Dec. 30	25	Cured
20	M. S.	50	F.		ditto	Dec. 10	Feb. 1	53	ditto
21	M. M'P.	19	F.	Servant	ditto	May 18	June 1	14	ditto
22	F. C.	20	F.	Servant	ditto	June 9	June 15	7	ditto
23	A. M'L.	22	F.	Servant	ditto	June 9	July ¼	26	Relieved
24	J. S.	44	M.	Gardener	Pleurodyne	May 10	May 23	14	Cured
25	M. G.	27	F.	Married	Ischias	June 26	July 13	18	Relieved
26	E. F.	23	F.	Servant	Rheumat. chronicus	July 2	July 30	29	ditto
27	W. B.	19	M.		Variola discreta	Nov. 16	Dec. 11	26	Cured
28	A. R.	1¼	F.	Sucking	ditto	Nov. 26	Dec. 17	22	ditto
29	E. B.	3	F.		Variola confluens	June 22	June 30	9	Died
30	S. B.	19	M.	Sailor	Rubeola vulgaris	May 23	July 10	49	Cured
31	S. W. J.	12	F.		Scarlatina anginosa	June 25	July 4	10	ditto
32	C. L.	19	F.		ditto	July 7	July 18	12	ditto
33	M. R.	28	F.		Hæmoptysis	Nov. 13	Dec. 23	41	Relieved
34	J. M'G.	29	M.	Shoemaker	Phthisis pulmonalis	Nov. 14	Jan. 13	61	ditto
35	R. C.	46	M.	Weaver	ditto	Nov. 17	Dec. 27	34	Died
36	A. W.	19	M.	Weaver	ditto	Nov. 25	Dec. 16	21	ditto
37	J. T.	46	M.	Carpenter	ditto	June 20	July 17	38	Relieved
38	A. M'P.	25	F.	Servant	Menorrhagia	May 29	June 10	13	Cured
39	E. R.	45	F.		ditto	June 6	June 30	25	ditto
40	J. N.	58	F.	Married	Hæmaturia	July 15	July 30	11	Relieved
41	J. D.	22	F.		Apoplexy	Dec. 3	Dec. 5	3	Died

N.	Name.	Age.	Sex.	Profession.	Disease.	Adm.	Dism.	Days.	Event.
42	J. T.	40	M.	Sailor	Apoplexy	Dec. 16	Dec. 18	3	Died
43	J. M.	68	M.	Ploughman	Paralysis hemipleg.	June 19	June 27	9	Cured
44	W. J.	12	M.		Paralysis paraplcg.	May 17	June 26	40	No better
45	J. H.	40	M.	Labourer	Dyspepsia	Dec. 20	Dec. 30	11	Relieved
46	H. F.	22	F.		ditto	Dec. 25	Jan. 3	10	Cured
47	G. M'C.	34	F.	Married	ditto	June 14	Feb. 1	19	Better
48	W. H.	19	M.	Gardener	ditto	Jan. 14	Feb. 1	19	No better
49	M. D.	13	F.		ditto	May 27	June 7	12	Cured
50	A. G.	65	M.	Ploughman	ditto	June 3	June 19	17	No better
51	M. G.	48	F.		ditto	July 15	July 31	17	ditto
52	E. H.	45	F.	Servant	ditto	June 18	June 29	12	Relieved
53	J. D.	40	F.	Sempstress	Epilepsia	June 2	July 15	45	ditto
54	J. W.	36	M.	Weaver	Palpitatio	Nov. 11	Jan. 25	46	ditto
55	J. C.	36	M.	Brewer	ditto	Jan. 5	June 26	left	with fev.
56	R. L.	36	M.	Mason	ditto	Jan. 22	Feb. 1	11	No better
57	H. S.	57	M.	Currier	Dyspnœa catarrh.	May 27	June 9	14	Relieved
58	J. D.	40	F.	Sempstress	ditto	June 2	July 15	45	ditto
59	C. J.	45	M.	Whiteleadm.	Colica pictonum	Dec. 3	Dec. 8	6	Cured
60	P. D.	75	M.	Weaver	Cholera spontanea	June 20	July 2	13	ditto
61	A. W.	29	M.	Carter	Diarrhœa biliosa	June 19	July 4	16	Worse
62	A. F.	60	M.	Labourer	Diarrhœa mucosa	Nov. 10	Dec. 4	25	Died
63	J. L.	46	M.	Sailor	ditto	Jan. 6	Feb. 1	27	Relieved
64	M. S.	47	F.		ditto	May 21	July 13	15	Cured
65	M. L.	60	F.		ditto	June 4	June 25	22	ditto
66	E. C.	42	F.		Diabetes mellitus	Nov 20	Jan. 16	58	Died
67	J. B.	26	M.	Labourer	ditto	May 8	left	85	Worse
68	M. J.	18	F.		Hysteria	July 17	July 20	4	Cured
69	J. B.	18	F.		Tympanites intest.	Dec. 10	Jan. 10	left	with fev.
70	J. T.	40	F.	Married	Hydrops.	May 14	June 26	48	Died
71	J. W.	56	M.	Labourer	Anasarca	May 7	May 23	17	Cured
72	W. H.	47	M.	Seaman	ditto	June 27	July 9	14	ditto
73	T. M'L.	48	M.	Glassblower	Hydrothorax	Jan. 10	Jan. 31	22	Relieved
74	R. B.	58	M.	Nailer	ditto	July 16	left.	6	Improving
75	G. W.	33	M.	Shoemaker	Syphilidis sequelæ	Nov. 11	Jan. 11	62	ditto
76	J. H.	24	M.	Hatter	Gonorrhœa	Jan. 22	Feb. 1	41	Better
77	M. H.	28	M.	Carter	Icterus	Jan. 27	Mar. 23	left	Cured
78	T. F.	33	M.	Labourer	Amaurosis	May 29	June 19	22	No better
79	J. B.	62	M.	Shipwright	ditto	June 25	July 31	37	Improved
80	C. A.	23	F.	Married	Ulcus palati	Jan. 31	Jan. 14	15	Relieved
81	D. M'D.	65	M.	Shoemaker	Lichen simp. et agr.	July 14	July 31	18	Relieved
82	M. T.	35	M.	Labourer	Lepra vulgaris	June 9	July 4	26	Improved
83	B. C.	16	F.		Psoriasis diffusa	July 1	July 31	31	Improving
84	D. M'D.	21	M.	Labourer	Psoriasis invet.	June 26	July 21	26	ditto
85	T. C.	9	F.		Porrigo favosa	July 2	July 29	28	Cured
86	H. G.	20	M.	Labourer	Echthyma lurid.	July 6	July 13	8	ditto
87	A. D.	62	M.	Weaver	Scabies cachectica	July 15	July 31	7	ditto
88	W. D.	27	M.	Tinsmith	Scabies purulenta.	July 17	July 31	5	Relieved

The number of cases of each disease in the preceding table is much too few to afford any general results, and it is only given as contributing a certain number of facts, which, connected with others accumulated at other times and in other hospi-

tals, may, at last, establish various points in the history of these diseases. In the table I have followed Cullen's Nosology. It is not, however, well adapted for this purpose, chiefly on account of the artificial principles of its arrangement requiring diseases, which scarcely differ from, or rather run into each other, to be placed not only under different genera, but even under different orders and classes. This is remarkably the case in regard to pulmonic affections, the place of which it is often difficult to determine, when they combine in various degrees the symptoms of pneumonia, catarrhus, phthisis, dyspnœa, and asthma. In a tabular view of diseases, these should be placed contiguous or nearly so, and there should be a head of pulmonary affections to include those which are doubtful, and cannot be referred with certainty to any of Cullen's genera.

None of twenty-six examples of Cullen's order of phlegmasia terminated fatally; and it may be remarked, that, of these, only four cases, one cynanche tonsillaris, No. 4, one hepatitis, No. 16, and two rheumatic, No. 19 and 20, occurred during the winter quarter, for, although abdominal inflammations are more frequent in summer, yet pulmonary inflammations are considered as a winter disease. Inflammatory diseases occurred in both sexes, 17 in females, and 9 in men. This majority of the females, we shall afterwards find, depends upon the number of them affected with rheumatism. The patients who had inflammatory complaints were all young or in the prime of life, from 12 to 50, viz. 8 under 20, 11 under 30, 2 of 30, and 5 from 40 to 50 inclusive. The time they remained in hospital was very various, from one week to ten, but, on an average, about three weeks and a half.

The two cases of inflammation of the eye were instructive; the one, No. 3, was a decided case of inflammation of the iris, in all probability arising from the use of mercury in a constitution untainted by syphilis, and its treatment furnished a very striking illustration of the principle, that the same agent is sometimes the most effectual cure of the disease excited by itself; for, in this alarming case, mercury, pushed rapidly to full salivation, operated like a charm. I hence thought the case worthy of being detailed in the Appendix. The other case of ophthalmia, No. 2, was doubtful; some thought it merely a case of ophthalmia membranarum, while others considered it as another instance of iritis; and I incline to the latter opinion. If so, it was an instance of this severe disease being cured by the application of vinum opii, without the use of mercury.

Of decided inflammation of the lungs there were only four examples, Nos. 6, 7, 8, and 9; but some others, Nos. 34 and 37, perhaps, should have been classed here, although the copious expectoration of pus led me to rank them as instances of pulmonary consumption; and even the cases referred

to dyspnœa catarrhalis, Nos. 57 and 58, were probably connected with an inflammatory state of the mucous membrane of the lungs. The case No. 30, of cough with hectic fever after measles, also properly belonged to the pulmonary inflammations. In cases Nos. 30, 35, and 37, but especially No. 34, the fumes of tar, according to the recommendation of Dr Crichton, were tried with some advantage to the difficulty of breathing, but none certainly as to the ultimate termination of the disease. Indeed, no one who has ever witnessed the examination of the lungs of a person who has died of phthisis, can believe that this disease admits of cure when fully formed. The reputed cures all originate in an error in the diagnosis, or in extending the term phthisis to catarrhal affections of the lungs, without alteration of structure; and, when the secretion from the mucous membrane is merely increased, although inclining to purulency, the tar vapour, as applied directly to the seat of the disease, may prove serviceable. I have subjoined a few notes of this case in the Appendix, to show the immediate effects of these fumes. Two cases of phthisis died in the ward, and the appearances discovered on dissection, inserted in the Appendix, justify my unfavourable prognosis of this disease.

Abdominal inflammation was comparatively frequent during the summer quarter. Its seat seemed to be in the peritonæal membrane, and hence I have given the name of Peritonitis to these

cases, although by others some of them might have been denominated, from the organ whose peritonæal coat was the chief seat of the disease, Gastritis or Enteritis. But inflammation is seldom confined to one spot of the peritonæal coat, and, as it is apt to spread along a continuous membrane like the peritonæum, from organ to organ, and even by contact from one part of it to another, as we may see in inflammation of the eyelids affecting the contiguous membrane of the eyeball, I have preferred the general term Peritonitis where I was not certain of the organ affected. This doubt did not occur in Nos. 15, 16, 17, and 18, which I have considered as examples of hepatitis, and, indeed, it was not certain that in these the disease was confined to the peritonæal coat. No. 10 was a very severe case of peritonitis, and began, probably, in the uterus, and spread to the bladder and intestines. This girl was seized, during convalescence, with inflammation and swelling of the parotid of both sides.

All our cases of rheumatism, seven in number, occurred in females from 19 to 30 years of age. One of these, No. 26, was accompanied by nodosity of several joints, especially the right knee, which was much relieved by issue blisters; and another, No. 25, was an instance of ischias nervosa.

The prevalence of small-pox in this city during the whole of this year, suggests many observations which would not be misplaced here, as to the peculiar causes which have prevented this island es-

pecially from deriving all those advantages from the Jennerian practice which it is calculated to afford; but the subject has been so ably discussed by Dr Monro * and Mr Hennen,† that I shall content myself with expressing a wish, that the Hospital had the means of admitting every case of small-pox which occurs among the lower classes, and the magistracy the power of sending them in. This is one of those diseases, in regard to which it is most essential to keep, in the Hospital journals, a record of the place from which the patient comes, as well as of the probable source of the disease, both for assisting us in the diagnosis of doubtful cases, and of tracing the origin and progress of an epidemic.

From our table it appears that measles and scarlatina were also in this city during summer. The lad who was affected with the former, No. 30, had a very bad recovery, and left the house with symptoms which may terminate in consumption. The scarlatina cases were smart, but not violent, and with them the cold bathing had

* Observations on the different kinds of Small-pox, and especially on that which follows Vaccination, illustrated with a number of Cases. By Alexander Monro, M. D. F. R. S. E. &c. 8vo. Edinb. 1818.

† An Account of the Eruptive Diseases which have lately appeared in the Military Hospitals of Edinburgh, &c. By John Hennen, Esq. Deputy-Inspector of Military Hospitals for North Britain. Edin. Med. and Surg. Journal, Vol. XIV. p. 409.

the very best effect. The younger patient, No. 31, although averse to the bath at first, found so much relief from it, that, whenever she was oppressed by the increased temperature of her skin, she got out of bed, and cooled herself in the tub of cold water left at her bedside.

Both cases of apoplexy, Nos. 41 and 42, proved fatal; one was remarkable as occurring in a young woman of 22. The appearances after death were carefully examined by the late Dr Gordon, and are detailed in the Appendix.

The cases of dyspepsia, No. 45—52, were numerous and various, and I cannot boast of the success of the means of treatment we employed, although great attention was also paid to the diet of the patients. This disease occurred in both sexes, and in individuals from the age of 13 to 65. One of our patients was a ploughman, and another a gardener; and some of the worst cases I have met with belonged to the latter profession, although, as well as the former, it implies exercise in the open air, the circumstances which have most effect in removing this complaint, when it occurs in persons of a sedentary and inactive mode of life. Animal diet, which I have found successful on other occasions, was at this time of little use.

The epileptic fits in the only patient, No. 53, affected with that obstinate disease, were suspended, as long as she remained in the ward, by the copper pill; but, as unfortunately is most fre-

quently the case, its effects were not permanent, and the woman is, I understand, re-admitted nearly as bad as before. This woman is entered a second time in the table, No. 58, as having dyspnœa, which occurred every morning. It seemed to be relieved by the application of galvanism, as proposed by Dr Wilson Philip.

We had three severe cases of palpitation, No. 54, 55, and 56, probably all connected with organic diseases of the heart. In hospitals we frequently observe, that several instances of a disease rather rare are in the wards at the same time. It seems to be owing to the reports of the friends, if the first case admitted seems to be benefited by the treatment, as in the present instance; for case No. 54 received the most decided relief from confinement to the horizontal posture, low diet, digitalis, and small bleedings. In the other cases, the treatment was less beneficial, but No. 55 was seized with continued fever while in the house, No. 28 of the fever cases, and during the continuance of his fever the symptoms of his original disease were suspended.

The cases of bowel complaint, by which I here mean those affecting the state of the alvine evacuations, all occurred in persons more or less advanced in life. One, No. 62, proved fatal, and the appearances on dissection sufficiently account for its unfortunate termination. Another, No. 61, was hopeless, although he left the house impatient at not finding relief. No. 63 was one of

those cases of simple but obstinate diarrhœa which occur so frequently among old seamen. No. 64 and 65 were cases of that form of disease which is removed by copious alvine discharges and sedatives. No. 64, after being long under treatment and due evacuations, was cured chiefly by anodyne starch clysters, which had a very decided effect in allaying the irritation of the rectum. The case of cholera, No. 60, was severe, and I saw others about the same time in private practice.

We had two cases of diabetes, one of which, No. 66, is given in the Appendix, on account of the dissection. During life there was a tumor upon the abdomen of this poor woman, which puzzled us extremely, on account of its size, form, and especially the thinness of its coats, so that it seemed to be lying just under the integuments. It evidently contained fluid, and as it had been preceded by general swelling of the abdomen, I conceived it to be a species of encysted dropsy, but must confess that I did not conjecture the true cause. This, indeed, would have been discovered, and the patient would have been saved much agony, if she had submitted to the directions given for drawing off her urine by the catheter, but, from false delicacy, she obstinately refused to allow it to be introduced. After death, even before dissection, the sudden subsiding of the tumor upon the escape of a great deal of urine, showed that it proceeded from distention of the urinary bladder, and

the state of tenuity, or rather the total decay of the abdominal muscles covering it, explains the reason why it was never emptied by her voluntary efforts while in the ward. I have little doubt that it was originally produced by the same delicacy, which increased her suffering before death; and which accustomed her to suppress her urine, after the commencement of the diabetes rendered the calls of nature more frequent. The enlargement of the sympathetic nerve in this case is worthy of notice, but I am unable to determine how far it was connected with her disease. The other case of diabetes, No. 67, occurred in a young man, who was at the same time suffering from the most decided tubercular phthisis. As the journal of the case is very long, I shall give a very short selection of the reports in the Appendix, and I shall take the liberty of subjoining an unpublished dissection of a case of diabetes, complicated with phthisis, which had been formerly in the hospital, and was communicated to me as resembling in many particulars that of our present patient, by Mr Gardner, who attended him in his own lodging after he left the house.

The case of hydrothorax, No. 73, has already been quoted by Dr Abercrombie,* as an instance of the beneficial effects of venesection in some

* Observations on certain Dropsical Affections which are treated by Blood-letting. By J. Abercrombie, M. D. Edin. Med. and Surg. Journal, Vol. XIV. p. 174.

cases of dropsy. He remained well for several months, but his complaint has returned. In No. 74, the debility was so great, that I feared for some time to have recourse to bleeding, which was otherwise indicated by the great difficulty of breathing, vertigo, and oppression of his head, and the very albuminous nature of his urine; when ventured upon, its effects, so far as it was tried, were favourable. The case of general dropsy, No. 70, which terminated fatally, was the most severe I ever witnessed. This woman I was also inclined to bleed, but from the enormous swelling of every part of her body, the operation was absolutely impracticable. On dissection, the cellular substance in every part, even in the heart itself, was distended with serum. The abdomen was full of water, and the lungs were literally *swimming* in the immense quantity of fluid contained in the chest. But in this cavity, besides the serum, there was a great deal of albuminous coagulum.

The case of tympanites, No. 69, was singularly obstinate and curious. It occurred in a girl otherwise not unhealthy, who performed all her natural functions regularly, unless when the distention of the abdomen by pressure rendered necessary the use of the catheter to draw off her water; but she was attacked with the epidemic fever, No. 52 of the fever cases, while in the house, and from that moment her abdomen began to subside, and continued flaccid during its whole course, nor did

it return while she remained in the house, which it since has done, though not in the same degree. Her case is also remarkable, from her being bled repeatedly shortly before the accession of fever, and by having been cupped to the extent of 12 ounces at its very commencement.

The case No. 75, which was an instance of the dreadful effect of syphilis or rather of mercury, injudiciously administered for its cure, recovered under the use of the decoctions of sarsaparilla and mezereon. In No. 76 we did not find the cubebs so successful as from other trials we expected. Phymosis supervened, requiring surgical assistance. The man with jaundice, No. 77, was dismissed cured, March 27.

The case of ulcer of the palate, No. 80, was ascribed to a singular cause, the effect of nitre as a poison. I have inserted in the Appendix its history, which in many respects resembles that published by Mr Butter in the Edinburgh Medical Journal, Vol. XIV. p. 34.

The variety of cutaneous affections, No. 81-88, which occurred, was highly instructive to those pupils who witnessed them, and enabled us by direct comparison at the bedside of the patient to confirm the truth of the descriptions and delineations of this difficult class of diseases by Drs Willan and Bateman.

Besides the diseases for which the patients come to an hospital, they sometimes present other appearances worthy of notice. Of our fever patients,

No. 50 was an Albiness from the Western Islands, and one of our anasarcous patients, No. 71, presented an example of the skin of a native of Bengal having become almost entirely white without the agency of obvious disease.

No. 17 and 44 is the same person, entered twice for different diseases, and No. 53 and 58 is in the same circumstances. Nos. 69 and 55 are also inserted in the fever list, as Nos. 28 and 52, in consequence of being attacked with fever in the ward.

The dissections contained in the Appendix I consider very valuable. To me they are particularly interesting, as being the last fruits of my professional intercourse with the late Dr John Gordon, whose zeal and science as a pathological anatomist qualified him so eminently for the situation he filled in the Hospital, and whose private virtues made him most beloved by those who knew him best.

APPENDIX.

In making a selection of the fever cases which occurred in the clinical wards, I have had two objects in view; to give a picture of the disease in its ordinary form, and in all its stages, and to detail the progress of its most important varieties. The infection of two patients while in the wards for other complaints, enabled us to describe, at the bed-side, the fever from its very commencement, and the daily state of the symptoms in its first stage, which we have rarely an opportunity of doing even in fever hospitals To these cases, No. I. and II. of the succeeding series, a history of the disease, under which they previously laboured, is prefixed, to show more satisfactorily the state of the individual, at the time of the accession of the fever, the modification it may have received from the preceding treatment, and regimen of the patient. No. III. is an example of the progress of the disease, when it was continued to the 17th day, and IV. and V. are instances, where, though commencing with severity, it terminated in a shorter period. No. VI. is inserted to show, that, even in an advanced stage of typhus, blood-letting, if indicated, may be employed with safety and advantage. No. VII. and VIII. are cases of pulmonic typhus, or of the pneumonia typhodes of authors, successfully treated by free abstraction of blood. No. IX. is an example of the maniacal form of fever. I have lastly inserted the reports of every fatal case, whether arising from the severity of the disease itself, or errors in the manner of treating it, as they always convey some useful information respecting the immediate causes of death, and the means of obviating them.

No. I.

Case exemplifying the early Symptoms of Epidemic Fever observed from the commencement, in a Man while a Patient in the Clinical Ward, affected with inordinate action of the Heart and Arteries.

J. C. Brewer's Servant, æt. 36. No. 28 of Fever Cases.

5th January.—Complains of violent pain at the scrobiculus cordis, at times extending through the left shoulder, and down to the elbow of the same side, increased by any exertion, and chiefly by going up stairs, or ascending ground; more severe in the night, and then causing considerable dyspnœa, with short dry cough and palpitation, which he says is to be felt at the bottom of the sternum, while the pain continues very violent. It is at present very distinct, as far down as the seventh or eighth rib, synchronous with that at the wrists; his feet and ankles are œdematous; says his sleep is disturbed by startings, but reports his general health and functions to be quite natural; pulse, in both arms, 96, rather full.

His complaints commenced about eighteen months ago, at first so very slightly as to appear of no moment, and having intervals of perfect ease for several weeks at a time. In the middle of September he began to be most severely affected, and was obliged to suspend his work for three weeks, during which he was bled to ℥xiv. and ℥xvi., with some relief, and took some doses of salts. He returned to his work in the end of September, and continued employed for three weeks, during which he continued to suffer great uneasiness from his complaints. On Monday 13th October, on returning home, he was much distressed, for the first time, by difficulty of breathing, and very great increase of pain, but declined taking advice. On the night of the 19th he was so much affected by severe aggravation of the pain, as not to be able to lie in the recumbent position in bed for five minutes at a time, and if he chanced to slumber in that position for a few minutes, he suddenly awoke as if from a terrifying dream, and was obliged to sit erect, which was followed by a mitigation of suffering, but by no means

complete relief. He was seen next morning by Dr Hunter, to whom I am indebted for these particulars of the commencement of his affection, and he at this time noted the following symptoms:

Pain very severe, accompanied with the same palpitations, and confined to the left side of the breast. Breathing very slightly affected, with occasionally a little dry cough. He complained also of pain, extending from the left side of the breast to the left shoulder, and down as far as the elbow, and was particularly sensible of this pain, when he suffered most from the pain in his chest. He also felt a pain in his left temple, and on two occasions in the right, when he coughed a little, or when the pain of the chest was severe; pulse 88, very full, firm, and throbbing, but quite regular, and no intermission or difference of heat perceptible. The natural functions performed regularly. On examining him stripped in bed, a violent shocking, synchronous with the pulsation of the carotid, femoral, and radial arteries, was observed to shake the chest, and extend on the abdominal parietes as far nearly as the umbilicus, and middle of the right hypochondriac region. He laid his hand on the last bone of the sternum, as the seat of the pain, and said that it did not extend over a larger surface than a half-crown piece.

Dr Hunter bled him to ℥xxiv., and gave him powder of calomel and gamboge, with draughts of tinct. digit. and sulph. acid, and restricted him to a dry diet, consisting chiefly of vegetables. Next morning he had passed a better night; his powders had vomited and purged him smartly; he had no pain of arms, and was quite free from pain of heart; breathing natural, but more cough; pulse 82, full, but softer; dreamt little, and had only one or two fits of palpitation, of short duration. He was again bled to ℥xxiv., which induced syncope for a short time. On the 24th he was again bled to ℥xxiv., and on none of these occasions did the blood exhibit any buffy coat. By this treatment his complaints were much relieved at the time. The violent shock of each pulsation had disappeared, and given place to a gentle tumultuous motion; and his paroxysms of terror, palpitation, and pain, during sleep, were reduced in force and duration.

After coming into the hospital he got large doses of tinct. digit. and was bled to ℥xii. on January 6th; again to ℥xii. on January

11th; and a third time to ℥xii. on January 14th, with considerable relief. From the 24th, the reports, as connected with the commencement of contagious fever, became more interesting.

January 24th.—The large arteries throughout the whole body beat with unusual force; considerable headach came on in the night, and continues; tongue still white, with some bad taste; bowels regular; pulse 86, rather strong.

Mitt. sang. statim ad ℥xij. Cont. diæta. lactea.

25th.—Headach considerably relieved by the bleeding, but he still has it slightly; pulse 98, as before; bowels costive.

Capt. bolum jalap. comp. Cont. diæta.

26th.—Bolus operated freely, but he has been very sick; has had no affection of pain, palpitation, and terror, during the night; pulse 100.

Int. bolus. Cont. diæta.

27th.—Had one or two rigors during the night, not followed by heat; pulse 90, fuller, and a little hard; slept tolerably; some headach and thirst, but not so great as the night before; no pain of back or limbs; some cough; no cynanche; bowels regular; urine free; heat not increased.

Mitt. sang. stat. ad ℥xx. Bibat. pot. acid. mineral. ad libit.

28th.—Only ℥xij. of blood were taken last night, as he fainted; but the remainder of the quantity ordered was taken this morning; during the night had no pain or palpitation; slept well, but was affected at one time with giddiness, which obliged him to sit up; slight pain of frontal region; tongue a little dry; some bad taste of mouth; no appetite; slight cough; pulse 98, not so full as usual; heat increased; bowels rather costive.

Capt. stat. elect. sennæ, ℥i. et repetr. omni horâ ad catharsin. Rep. pot. acid.

Ordinary diet, with one lb. of beef-tea, instead of broth.

29th.—No complaint of chest, but slept ill; has some headach; thirst, and bad taste of mouth; tongue dry, but not foul; considerable cough; no sickness, or pain of epigastrium; no general pain; urine and bowels natural; pulse 100, full, but less strong; arteries generally beat less strongly; heat of skin increased, and somewhat pungent; little febrile anxiety.

Int. elect. sennæ. Cont. pot. acid. et diæta. Capt. mist. mucilag. opiat. ℥i. sæpies in dies, et applicend. hirud. viij. temporibus.

30th.—Had a good night, and his symptoms are all very mild; cough less severe; little headach; some thirst; tongue rather foul, but moist; bowels regular; urine free; pulse 104; no pain in the region of the heart, and much less pulsation than before this attack.

Cont. pot. et mist.

31st.—Symptoms all mild; slept tolerably; pulse 118; heat slightly increased; bowels and urine natural; tongue brown, but not very parched; thirst rather increased.

Cont.

February 1st.—Little complaint, but laments occasionally when spoken to; tongue parched in the middle; pulse 98, less full than when natural; some subsultus; bowels and urine natural; pulsation of heart diminished; heat pungent; cough less; no headach.

Cont. mist. et pot. acid.

The case after this proceeded very mildly. On the 5th of February he was reported convalescent. He is still alive, but suffers greatly from the affection of his heart.

No. II.

Case of Fever observed from its commencement to its conclusion, in a young Woman while a Patient in the Clinical Ward affected with Tympanites.

J. B. æt. 18. No. 52 of Fever Cases.

10th December 1817.—The whole abdomen is much swelled and tense, but nowhere painful when pressed, except on the left side of the umbilicus; with a sense of tightness at the scrobiculus cordis. The contents of the abdomen give the feeling of great weight, especially when she stoops, which seems to hang, for the most part, from the left hypochondrium. Occasional headach and vertigo; pain in the small of back, sometimes extending down the thighs; urine very scanty, voided in very small quantity, turbid, and of a white and yellowish colour, depositing a very copious sediment; occasional cold sweatings, which happen, for the most part, at night, when she

gets into bed; her feet are in a constant state of perspiration, but still feel very cold; pulse 84; tongue clean and moist; bowels very costive; had no stool since Monday last; catamenia have not appeared for seven weeks; appetite good; no thirst.

Complaints began about fifteen months ago, after an attack of enteritis. She was first affected with frequent and slight epistaxis. After this had ceased, the swelling of the abdomen commenced, which was about twelve months ago, and it has gradually continued to increase. About eight weeks ago she had severe pain on the left side of the umbilicus, which sometimes continued incessantly for eight or ten days at a time.

She has used ung. hydrarg. for nine weeks past, with which she rubbed the whole of the abdomen, but without any apparent lessening of the swelling. She has likewise used a number of other medicines, the nature of which she does not know.

After admission, notwithstanding a great variety of remedies, these symptoms became rather more severe. On the 20th her menses reappeared for a short time, but without giving any relief. She was twice bled on December 13 and 25, on account of giddiness, which it relieved. She suffered greatly from retention of urine, which most commonly required to be drawn off by the catheter; and the state of the abdomen was reported, on the 31st December, as being very large, uniform, and elastic, and on percussion emitting a pretty distinct hollow sound. She got ten grains of the aloetic pill at bed-time, and was ordered the cold bath. After this the following daily reports were given.

Jan. 1st.—Did not take the bath, as on a former occasion, it had a very bad effect. Pills operated, and the tension and pain of abdomen are considerably lessened. Water spontaneously made; giddiness, and fell out of bed on attempting to rise.

Repr. pilul. et fiat V. S. ad ʒviij.

2d.—Giddiness much relieved by the bleeding; no buffy coat, but the coagulum is firm, and much serum separated; swelling as yesterday, and her symptoms in general have not been severe; micturition spontaneous; pulse 100.

Cont. pilul.

3d.—Tension of abdomen again excessive, which she ascribes to potatoe soup at dinner yesterday. Catheter used; bowels regular; pulse 96; no giddiness.

Rep. pilul. aloes.

Let her have beef-tea one lb. and a bit of steak for dinner daily.

4th.—Belly less tense; decreased about one inch. The dinner of the house has always disagreed with her; complains of rheumatic pains of loins; catheter used; bowels regular; pulse 90; no pain of abdomen.

Rep. pilul. aloes et diæta.

5th.—Dinner soured on her stomach, and was vomited; catheter used; bowels loose; pulse 100, good strength; abdomen as yesterday.

Int. med. et diæta. Capt. tinct. valerian. ammon. ʒi. bis indies. Let her have milk diet.

6th.—Vomited her medicine, as indeed she does every thing except pills; one lb. of water drawn off by the catheter; bowels regular; no giddiness; p. 108, of good strength; abdomen as yesterday.

Int. tinct. valerian. Capt. pilul. aloes et assafœtid. gr. x. bis indies. Cont. diæta.

7th.—Was sick, but did not vomit her pills; abdomen moderately tense; catheter used; much pain of back and sides; pulse 108, natural; bowels natural.

Cont.

8th.—Is better with the milk diet; tension of the abdomen little changed; catheter used; bowels regular; pulse 98, natural; no giddiness.

Cont. omnia.

9th.—Complains of pain in the left iliac region, which seems to affect the muscles of the part; abdomen scarcely so much distended; bowels regular; catheter used; pulse 104, moderate.

Appli. cucurbit. cruent. parti dolent. Cont. alia.

10th.—About 12 ounces of blood were taken by cupping, which relieved the pain; the abdomen is less tumid than it has been observed. Last night got an anodyne draught for pain of stomach, which was relieved, and has not returned. Complains of sickness and headach; slept ill; bowels regular; pulse 108, moderate; perspires freely; tongue whitish. Catam. cessavere.

Int. pilul. aloes et assafœtid. Capt. pilul. aloes gr. x. ad alvum laxand.

11th.—Is affected at present with retching, but vomits only phlegm; swelling of abdomen less tense, and two

inches less than when last measured; pulse 100; made lb.iss. of urine without the catheter.

Int. pilul. aloes. Cont. diæta. Capt. stat. haust. effervesc. et repetr. nausea urgente.

12th.—Vomits her draught, and for two days has had severe headach, general nausea, and disinclination to food; abdomen very much decreased in size, and flaccid; pulse 116, moderate; tongue whitish; great thirst; bowels regular; catheter not used.

Int. haust. efferves. Capt. pilul. colocynth. gr. x. omni bihorio ad plenam catharsin.

13th.—On account of the increase of headach, and the pulse becoming full and hard, and rising to about 130, with considerable febrile anxiety, and pain of epigastrium, she was bled to about ℥xx.; coagulum firm, a little buff on one cup; serum abundant, of a yellow colour; headach relieved by the bleeding, but is inclined to be quiet; slept ill, from general pains; bowels regular; catheter not necessary; abdomen much fallen, and flaccid; tongue white, with considerable thirst.

Capt. mist. salin, ℥ij. ter indies. Let her have butter milk for drink. Cont. diæta.

14th.—Has considerable febrile anxiety, and laments much from general pains, without any organ particularly affected; abdomen is nearly of natural size and tension, and is slightly painful on pressure; menses adhuc fluunt; butter milk causes diarrhœa; slept ill; no sopor; vision weak; pulse 130, moderately full, and compressible; respiration a little laborious; breath warm; tongue white, moist; considerable thirst; no appetite.

Capt. stat. haust. anod.

15th.—Has had a pretty quiet night, and has had two stools since last visit, but takes no food, and has great febrile depression.

Rep. haust. anod. et alia med. necnon habt. vin. rubri Lusit. ℥iv. indies.

16th.—Has great febrile anxiety and languor; face not flushed, but on the contrary lips white; headach not severe, but complains of general pains; two or three almost natural stools; urine nearly natural; slight cough; abdomen natural, and there is no hardness or tumour to be felt in it; no pain on pressing any particular part; no sickness or vomiting; little sopor; slept ill, and laments much; pulse

128, rather full; skin warm, not pungent; respiration accelerated.

Int. vin. Capt. mist. mucilag. acid. ad libit. Hora somni rep. haust. anod.

17th.—Still complains a great deal, but refers the pain to her knees and limbs, and not to any internal organ; sleeps ill; pulse 134, not full, extremely languid; bowels freely opened by an injection; tongue moist, and white; considerable thirst; no sopor or delirium.

Bibat. pot. acid. veget ad libit. Rep. vin. ad ℥vi. indies, et haust. anod.

18.—Got an accidental blow on the head yesterday by the fall of a hammer, which was very painful, and raised the pulse very much. Has some delirium when half awake; slept ill, but her bowel-complaint has been less troublesome since she got her draught; complains less, and lies quiet; takes her wine freely; thirst considerable; tongue moist, and not very white; no appetite; bowels still free; micturition natural; pulse 108 in the morning, at present 140, full; heat increased.

Int. pot. acid. Cont. vin. ad ℥viij. Rep. haust. h. s. To have half a pint of good tea mixed with a pint of water for drink.

19th.—Has a good deal of sopor and deafness; moaned during the night, but is quiet at present; takes her wine greedily, and is not heated by it; extremely languid and depressed, and unwilling to speak or make any muscular motion; bowels and micturition natural; thirst considerable; some return of appetite; face and lips pale; pulse 128, good strength; heat of skin little increased; no affection of sacrum from lying; no eruption.

Augeat. vin. ad ℥x. Cont. alia.

20th.— Takes her wine readily, but there is some suspicion that she does not get it all; for two nights past her stools have been passed in bed, fluid and copious, but she does not appear insensible; great thirst, but her tongue is moist, and not foul; appetite returns, and she has much less febrile anxiety, but is very deaf; no particular complaint; abdomen perfectly natural, and rather sunk; catheter not necessary; pulse 120, rather weak; heat little increased; no eruption.

Let the night nurse be particularly attentive.

Rep. vin. et haust. anod. Capt. mist. mucilag. acid. ℥i. urgent. tussi. Cont. pot. theæ. To have half a pint of table broth to dinner.

21.—Had a restless night, and fell out of bed, but without injury; takes her wine and relished her broth; no delirium, but is considerably deaf, and very languid: bowels loose; micturition natural; pulse 120, moderate; heat little increased; tongue moist, and brownish; no sickness; some headach; some cough; moans less; has not taken the draught for two nights.

Rep. haust. Cont. vin. et mist. Table broth and two oranges daily.

22d.—Had a good night, and is almost free from febrile anxiety; appetite returning; thirst considerable; tongue dry, but not parched; cough, with some pain of breast; abdomen flaccid; urine free; bowels natural; pulse 124, good strength, but not full; some perspiration; redness returned to the countenance and lips.

Cont. omnia. To have a little currant jelly.

23d.—Is almost free from febrile anxiety; takes her broth with appetite, and they agree; slept well; little headach; some deafness; tongue clean, and moist; little thirst; bowels regular; urine free; abdomen flaccid; pulse 108, natural fulness and strength; heat natural.

Cont. mist. haust. et vin. Continue the oranges, jelly, and tea. To have a bit of steak instead of the broth at dinner.

14th.—Slept well, and has no complaint but weakness; tongue moist; countenance natural; pulse 100, rather small, but of good strength; functions natural.

Cont.

25th.—Symptoms all decreasing; slept tolerably; pulse 104, small, not hard; appetite returning.

Cont.

26th.—Had some pain of stomach last night, which was relieved by warm water, but her bowels are regular; urine free; and very little febrile anxiety; had a good night, and makes no complaint; pulse 104, good strength; tongue moist; wine does not affect her head.

Cont. med. sed. habt. vin. ℥vi.

27th.—Had a good night; no febrile anxiety; symptoms generally remitting; pulse 112, small; skin moist;

tongue clean; countenance and lips natural; little appetite bowels regular; urine free; abdomen flaccid.

Cont.

28th.—Had a good night, and is without febrile anxiety or any complaint, except occasional cough; pulse 118, natural; bowels and urine natural.

Int. mist. mucilag. acid. et capt. linct. opiat. ℥ss. urgente tussi. Cont. diæta.

29th.—Had a good night; cough much better; does not vomit her medicines; bowels natural; pulse 90, natural; tongue moist; heat not pungent; bowels regular; urine free, and whitish; bad taste of mouth; slight deafness; no tinnitus.

Cont. omnia.

30th.—Has not taken her draught for several nights, as she thought it caused stupor; a good night, and in every respect convalescent; pulse 124, but she had been up; abdomen regularly bandaged, and shews no tendency to enlarge; cough much better.

Int. haust. et vin. Cont. alia.

31st.—Was attacked with pain of left hypochondrium last night, which still continues; thirst gone; sat up a little, but is very weak; pulse 112, natural; skin moist; febrile anxiety gone; functions regular.

Applicent. cucurb. cruent. later. Cont. alia.

Feb. 1st.—About ℥vi. of blood only were taken by cupping, but her side was relieved; had a good night; functions natural; skin warm, and moist.

Left under the care of the ordinary physician, by whom she was afterwards dismissed in tolerable health, although the belly was again somewhat swelled.

No. III.

Case of severe Fever terminating on the 17th day, as an example of one of its frequent forms, and the usual mode of Treatment.

A. J. Weaver, æt. 18. No. 74 of the Table.

July 13th 1818.—Complains of a constant, severe, and lancinating pain of the whole head, attended with a sense of heat,

giddiness, and occasional deafness, aggravated by motion, coughing, and the erect posture, and becoming worse in the afternoon. He has slight cough and sore throat, and breathes short at times, which he says is done purposely, with a view to relieve the headach. Pulse 100, contracted but not weak in the recumbent; very indistinct, and about 140 in the erect posture; resp. 24; heat 106, pungent. He feels very hot, without rigors or sweating, but his feet are rather chilly. He has no petechiæ; countenance deeply flushed, and rather heavy; eyes not suffused; pupils alternately contract and dilate on exposure to light; tongue moist, with a clear white coat, and clean edges; breath fetid; bad taste; much thirst; no appetite; bowels regular; urine natural. He sleeps ill, with much dreaming, starting, and tendency to delirium. On standing up, he complains of great weakness, increased headach, universal tremor, and pains in his knees. The complaint commenced five days ago, this being the sixth inclusive, with giddiness, debility, and defluxion from the nose, like a common cold. On the 4th and 5th days the symptoms were greatly aggravated, and the headach became severe. The patient can assign no cause for his illness. He lives in the Grassmarket, and is not aware of having been exposed to contagion, unless it could arise from being in company with two convalescents from fever, and has used no remedies.

Statim abradr. capillitium, et applicr. cucurb. cruent. nuchæ. Assidue laventur corpus et caput aqua frigida cum aceto. Vespere utatur pediluvio tepido, et capt. bol. jalap. comp.

14th, 7th day.—About eight ounces of blood drawn by cupping; slept pretty well; three thin motions from the cathartic; no pain anywhere; complains only of giddiness and weakness; pulse 96, strong and full; heat 105, not distressing to himself, though pungent to others; no sweating, shivering, or trembling; eyes more clear; tongue loaded, except at the edges; breath fetid; less bad taste; great thirst; no appetite, deafness, or tremor.

Capt. pil. Eblanenses ii. omni hora donec plene dejecerit alvus. Mittr. sanguis ad unc. xvi. e brachio. Lavetur corpus aqua frigida cum aceto.

Hora 8va, P. M.—Venesection not yet performed. Has had five or six thin offensive motions; complains of great weakness and oppression, but no pain; countenance

much flushed; pulse 106, less strong and full; resp. 21; heat 107, ardent and pungent, yet he does not feel distressed; tongue moist, and of a clear white; little thirst.

Statim fiat venesectio, et adhib. affusio aquæ frigidæ.

July 15th, 8th day.—Blood did not flow freely, 12 ounces drawn without relief; a great many thin motions from two pills; slept ill; complains greatly of weakness, especially about the legs; is dejected and unwilling to be disturbed; no petechiæ; countenance less flushed; eyes slightly suffused; tongue white and moist; no bad taste; much thirst, and some appetite; pulse 104, of good strength; heat 105, less ardent; some sweating this morning; no deafness, giddiness, or tremor; did not like the cold affusion.

Capt. mist. salin. unc. ii. omni bihorio. Lav. corpus aq. frigid. cum aceto.

Hora 8va.—Two or three thin fetid motions, containing light coloured flocculi; very weak; makes little complaint, but is peevish; pulse 112, strong and full; resp. 31, variable; heat 105, ardent, but does not feel himself uncomfortably warm; dislikes the cold washing; face flushed; tongue pure white, but moist; little thirst; some appetite.

July 16th, 9th day.—Slept indifferently, with much dreaming; no motion; pulse 110, strong; resp. 34; heat 105; some cough, which distresses him; other symptoms as last night.

Contr. mist. salin. ℞ Tart. antim. gr. i. Tart. pot. et sod. unc. i. Aq. fontan. unc. vii. Solve. Capt. unc. ii. omni hora ad alv. dejectionem. Applicr. vesicator. pectori. Interm. lavat. frigida.

Hora, 8va, P. M.—Three thin greenish offensive motions; continues dosing, oppressed, and peevish; pulse 100, of moderate strength; resp. 37, regular; heat 105.

July 17th, 10th day.—Three thin motions, otherwise natural; was quiet through the night, but says he slept ill; complains of pain of blister, but it has not risen well; tongue moist, but less loaded; still has stupor; much thirst; no appetite; pulse 100, easily compressible, still febrile; resp. 34; heat 102; feels less hot; no deafness, giddiness, or tremor; slight cough, and shortness of breath, but no pain of chest.

Intermittr. medic. Let him have bottled table beer, two bottles daily.

Hora 8va.—Bowels free; discharge offensive; is less op-

pressed; pulse 94, quick; resp. 33; heat 104; countenance less flushed.

July 18th, 11th day.—Blister discharges little; slept pretty well, with some dreaming; three thin yellow and offensive motions; seems very uneasy; complains of much weakness, but no pain; pulse 104, of moderate strength; resp. 30; heat 104, not pungent; countenance slightly flushed; tongue white and less moist; much thirst; little appetite; no deafness or tremor; little cough.

Repet. cerevisia tenuis. Capt tart pot. et sodæ unc. 1. ex multa aqua solut. part. vic.

Hora 8va.—Generally better, and less oppressed; cough a little increased; and feet rather chilly; asks for tea.

Statim utatur pediluv. tepid. Let him have tea for breakfast.

July 19th, 12th day.—Slept well; four thin bilious and offensive motions; blister healing; feels better; complains only of weakness, and a little deafness; bowels somewhat uneasy, little cough; pulse 98, full, and slightly dicrotous. Resp. 32; heat 104; feels comfortable; count. natural; tongue moist, and nearly clean; much thirst, and some appetite.

Injici. vespere enema domest. Let him have tea twice a day.

July 20th, 13th day.—Slept pretty well; four offensive motions; enema returned after a considerable time in the bed; feels better, and makes no complaint but of giddiness and noise in his head, with some deafness; pulse 90, nearly natural; heat 104; feels comfortable; countenance a little flushed, but more expressive; tongue still parched in the middle; much thirst; little appetite; some tremor; less peevishness.

Hora 8va.—Pulse 92; resp. 34; heat 105; skin hot; face flushed; tongue clean and moist; much thirst; unwilling to be disturbed.

Adhib. lavatio tepida.

July 21st, 14th day.—Slept pretty well; two motions, nearly natural; makes no complaint, but is still rather peevish, and inclined to dose; pulse 92, strong and full; resp. 30; heat 102½; feels comfortable; tongue clean, and pretty moist; less thirst; good appetite; face flushed; much deafness, and little tremor.

July 22d, 15th day.—Slept well; one offensive motion; very deaf, and still weak; but his countenance is natural, with slight desquamation of the skin; tongue moist, and slightly white; much thirst; good appetite; pulse 90, strong and full; heat 104.

July 23d, 16th day.—Slept indifferently; two nearly natural motions; had some delirium this morning, of which he has now no recollection; makes no complaint, but is very weak and deaf; pulse 94, strong and full; heat 102; feels comfortable; face natural, and slightly flushed; tongue rather dry and whitish; some thirst, and some return of appetite.

Cont. cerevis. tenuis, et capt. mist. sal. ℥ij. ter indies.

Hora 8va.—Had occasional delirium through the day, and dozes much; pulse strong and full skin hot; face flushed; much deafness; good appetite; slight epistaxis.

Applic statim hirud. 12 temp. Adhib. lavatio frigida vel tepida prout ægro gratius erit.

July 24th, 17th day.—Leeches acted well; slept well, but continues delirious at times; deafness diminished; face less flushed, and says he is quite easy; four very thin offensive motions; pulse 92, still strong, but less full; heat 102; tongue moist, but white; much thirst; good appetite; and a little tremor.

Capt. pulv antimon. gr. 3. omni hora, donec plene dejecerit alvus. Contin. lavatio frigida vel tepida.

July 25th, 18th day.—Slept well, and had no delirium since yesterday's visit; two thin offensive motions; feels better; no complaint but weakness; face paler and more natural; pulse 68, less strong; heat 99; resp. 22; tongue white and moist; less appetite, and deafness; little tremor.

Repet. pulv. antimon. Interm. lavatio.

July 26th, 19th day.—Slept well; functions natural, and symptoms declining; complains more of debility, and has lost much flesh; wishes for meat.

Contin. diæta.

July 27th, 20th day.—Slept well; one natural motion; complains only of weakness; pulse 56, natural temp. comfortable; tongue moist, and very slightly white; no thirst; good appetite; wishes for meat; deafness going off; no tremor. Contin. diæta.

July 28th.—Slept well; wishes to be permitted to rise; pulse 56, natural; other functions regular.

Capt. elect. laxant. dr. 1. omni hora ad. alv. solvend.

Let him have a little meat for dinner.

July 29th.—Slept indifferently; bowels confined; pulse 52; deafness going off; countenance nearly natural. He may be allowed to rise.

Capt. elect laxant. dr. 1. omni hora ad alv. leniter solvend.

July 30th.—Four motions more natural than formerly, from four spoonfuls of electuary; slept well; no complaint but weakness, which is considerable, but his muscles are getting firmer; was up a little yesterday; pulse 56, strong and full; tongue quite clean and moist; no thirst; good appetite; little deafness; no tremor.

Interm. elect. laxans. Contin. diæta.

July 31st.—Slept well; pulse 52; functions natural; was not up yesterday, but will rise to day.

Continue.

Let him be remitted to the ordinary physician.

No. IV.

Case of severe Fever, with Petechiæ and yelloweness of Skin, successfully treated with Leeches and Venesection, and terminating about the 8th day.

J. C. Ostler, æt 23. No. 72 of the Table.

July 9th, 1818.—Complains of general uneasiness, and sense of constriction, chiefly in the lower extremities, and of a constant lancinating pain, and sense of heat, around the front of the head, relieved by the recumbent posture, and when severe, attended with a degree of deafness. Pulse of good strength and size, but slightly dicrotous, 92 in the recumbent, 110 and weaker in the erect posture. On standing for a short time he is affected with fainting and vertigo. Resp. 18; heat 101. He has occasional shivering and sweating, but feels at present comfortable, and his feet are rather chilly. A few petechiæ are scattered over the trunk of the body. Countenance perfectly natural; eyes

somewhat suffused; tongue parched, and yellowish in the middle, clean and moist at the edges; no bad taste; little desire for drink, except to moisten his mouth, which is dry and hot; no appetite; bowels open from purgative medicine; urine natural. He sleeps ill, and feels very weak, but has little tremor.

The complaint commenced five days ago, this being the 6th inclusive, with headach, drowsiness, and vomiting of a watery fluid. He took to his bed that evening, and the next day became much worse, with general uneasiness, heat, thirst, and sore throat; since which he has had regular medical assistance.

On the second day he took an emetic, which operated slightly, and produced no apparent advantage. The sore throat subsequently subsided, but he had vomiting the next two days, excited by drinking. His bowels have been kept open by purgative medicine.

The patient lives in the Grassmarket. He can assign no cause for the disease. Is not aware of having been exposed to contagion, and previously enjoyed good health.

Applic. statim hirud. xii. temporibus.

10th, 7th day.—Only seven leeches fastened, which relieved his headach, and to day it is much less. Slept ill; bowels confined. Complains chiefly of general weakness and uneasiness, with pain in the calves of his legs. Pulse 78, strong, full, and slightly dicrotous; resp. 19; heat 100; feels comfortably warm, but had a little shivering through the night; some petechiæ on the trunk and limbs of a purple colour; countenance flushed; eyes suffused; tongue dry and yellowish in the middle; much thirst; no appetite; some deafness and confusion; little tremor; no pain of side; little cough.

Fiat venesect. ad. unc. xii.

Capt. pil. purg. Eblan. omni hora donec dejecerit alvus.

Hora 8va.—General relief from the bleeding; headach and deafness nearly removed. Took eight pills; two vomited; no motion; pulse 92; heat 101.

Capt. statim bol. jalap. comp.

11th, 8th day.—First cup of the blood drawn yesterday has little serum and no buffy coat; second cup little serum, and a yellow buffy coat, almost one-eighth of an inch thick; slept pretty well; many fluid motions; urine copious and

high-coloured; much better, and complains only of weariness, and pain in small of back; pulse 82, strong, full, and rather dicrotous; resp. 17, full; heat 101; some yellowness of skin on the trunk; countenance flushed; eyes suffused; tongue foul; some thirst; no appetite; no deafness or tremor.

Capt. mist. salin. unc. ij. omni triborio.

12th, 9th day.—Slept well; three thin motions; complains only of weakness; deafness gone; yellowness of abdomen continues; some petechiæ on the arms; countenance flushed; eyes less suffused; pulse 72, full and strong; heat 99; tongue slightly dry and whitish; little thirst; some appetite. Continr. mist. salin.

13th, 10th day.—Slept well; one motion; no complaint but weakness, and is getting stronger; yellowness of abdomen, and petechiæ disappearing; pulse 66, full and strong; heat 100; feels comfortable; countenance nearly natural, but a little flushed; tongue moist and whitish; no thirst; some appetite. Continr. mist. salin.

14th, 11th day.—Slept well; petechiæ gone; yellowness still visible; pulse 64; heat natural; no complaint but a little weakness. Continue.

15th, 12th day.—Has no complaint, and even little debility; pulse 70, sitting. Continue.

16th, 13th day.—Convalescent.

Let him be dismissed.

No. V.

Case of severe Fever, with yellowness of Skin, successfully treated by Venesection and Leeches, and terminating on the 7th day.

M. T. Maid-servant, æt. 25. No. 88 of the Table.

June 27, 1818.—Complains of pain in forehead and loins; some vertigo on rising; some cough; no pain of chest; tongue whitish, but moist; some thirst; pulse 116, full; heat 103; skin hot, but not very dry; perspires occasionally; bowels regular.

Headach came on two days ago, accompanied with nausea, but no vomiting, and rigors succeeded by sweating; has had some cough for several years; yesterday took three opening pills, which operated once; has not been exposed to the contagion of fever.

Sistim. fiat venesect. ad ℥xvj. Cap. pil. aloet. iij.
Habt. pot. acid. veg. pro. pot. com.

28th, 3d day.—Eighteen ounces of blood drawn, not sizy, and with little separation of serum. It relieved the loins, but not the head; pills operated once; headach worse; vertigo on rising; pulse 120, full; heat 102½; skin covered with a copious perspiration; tongue white, at present moist; face flushed; headach prevented sleep; much thirst; pot. acid. said to be too sweet.

Applic. temp. hirud. 12. ℞ Sulphat. magnes. unc. 1.
Tart. antimon. gr. 2. Aquæ unc. 8. Solve. Capiat. partitis vicibus.

29th, 4th day.—Twelve leeches applied, with great relief of head; slept ill from nausea and thirst; took one dose of the saline mixture, which produced five motions, and vomiting of a green bitter liquid; pulse 114, natural strength; heat 102; skin moist, but perspiration less copious; very little headach.

Intermit. medicamenta. Habt. pro potu aquam fontanam acido muriatico acidulat. ad libitum.

30th, 5th day.—Catamenia adsunt. Bad night from severe return of headach; pulse 108, of good strength; heat 102, not pungent; less perspiration; tongue whitish, and dry; much thirst, and a very bitter taste; several loose motions.

Intermitt. medicamenta. Applic. hirud. 12 temporibus.

July 1, 1818.—Twelve leeches applied, with immediate relief; fore-part of the night good, but slept indifferently towards morning from thirst; slight headach; tongue white and dryish; much thirst; pulse 114, strong; heat 103; less perspiration; numerous motions, without tormina; skin and albuginea slightly yellow.

Abrad. capillitium. ℞ Calomel gr. 3. Opii gr. ½.
Misce. Capt. bis indies forma pilulæ.

2d, 7th day.—Catamenia disparuere. Took two pills, and had two motions without tormina; head shaved; no headach; good night, with much perspiration; tongue foul, but not so dry; less thirst; pulse 84, of good strength; heat 96; yellowness very slight, and confined to the expos-

ed parts of her body; says her skin was yellow for three or four years after having had jaundice, but has not been yellow for five or six years past.

Repet. pil. calomel. et opii.

3d, 8th day.—Slept well; tongue whitish, but not dry; bad taste; little thirst; pulse 78; heat natural; two motions offensive.

Interm. pil. calomel et opii. Capt. pil. purg. Eblan. 2.

4th.—A good night; feels much better; yellowness of skin gone; pulse 90, of good strength; tongue clean and moist; no thirst; bowels regular.

Intermit. pil. Capt. mist. sal. amm. ℥ij. omni trihorio.

5th.—Makes no complaint, and continues better; functions regular; slight appearance of desquamation on the face.

Continr. mist. salin. ammon.

6th.—No complaint but weakness; pulse 110, sitting; functions regular.

Intermitt. medicam. Habt. vin. rub. unc. 4. et juscul. bovin. lb. 1. indies.

8th.—No complaint. Let her be dismissed.

No. VI.

Case of Fever in which repeated Venesection was employed, with decided benefit, in a very advanced stage of the Disease.

J. M'L. Labourer, æt. 26. No. 25 of Table.

Jan. 16, 1818.—Is affected with much general debility; rigors alternating with heat; headach, with throbbing of the temples and vertigo; cough at times, with some expectoration, and pain of breast, of abdomen, and limbs; pulse 126; tongue foul; appetite bad; thirst urgent; bowels open from medicine; urine free, but high-coloured; skin rather pungent; sleeps ill; fifteen days ago began to be affected with the usual symptoms of fever. Brought a patient into the house three weeks ago, labouring under fever. Has only had some gentle laxatives.

Ft. V. S. ad ℥x. Habt. h. s. haust. anod. ant. cras mane capt. solut. tart. sodæ et potass. antimon. ℥iv. 2nda quaque hora ad alvum laxandam.

17th.—Only about ℥ix. of blood obtained, as he became faint; the portion last drawn shews a slight buff; complains only of giddiness; tongue white, but moist; bowels opened; pulse 116, vibratory; skin slightly warm.

Rep. solut. sodæ antimon. et haust. anod. ant. h. s.

18th.—His headach increased, and his pulse rose in strength and frequency after the visit, for which he was bled to ℥xij. with immediate relief, and he has continued easier ever since; proportion of serum natural, and no buffy coat: at present makes no complaint; face flushed; pulse 92, good strength; skin warm, slightly pungent; tongue moist, clean at the edges; two stools from some of his saline solution; micturition natural; sleeps well.

Capt. mist. salin. amm. ℥ij. omni trihorio.

19th.—Had a good night; bowels opened; complains only of thirst and bad taste; no eruption; pulse 90; full and dicrotous.

Cont. omnia. Pot. acid. veget. ad libit.

20th.—Complains only of bad taste of mouth, and pain of body; no deafness or confusion of thought; no sopor, but sleeps well in the night; bowels rather costive; pulse 82, full; heat increased.

Int. mist. salin. et Capt. infus. sennæ ℥ij. omni hora ad plenam catharsin. Cont. pot. acid. veget.

21st.—Medicine operated freely; bad taste of mouth continues; pulse 90, full, and slightly dicrotous; countenance less flushed; skin soft; heat not increased; no deafness or sopor; sleeps well, and makes no complaint.

Int. inf. sennæ. Cont. pot. acid.

22d.—Complains much of general soreness and great thirst, but refuses all drink except water; no deafness or sopor; pulse 90, good strength; heat little increased, but somewhat pungent; face flushed; tongue white and moist; bowels regular; urine free.

Int. med. Capt. h. s. haust. anod. ant. Two oranges daily.

23d.—Bowels costive; makes no complaint, but is dull; tongue and lips rather foul, but not parched; pulse 100, good strength; heat rather increased.

Int. haust. anod Capt. sulph. sodæ ℥i. Oranges.

24th.—Tinnitus aurium; pulse 92, rather sharp; tongue still white; still much thirst; sleeps indifferently; bowels opened by the salts.

Int. med. Capt. haust. anod. ant. Cont. diæta.

25th.—Sleeps well, and feels stronger; appetite returning; pulse 96; bowels regular.

Cont. omnia. One lb. of beaf-tea to day, and daily.

26th.—Complains only of thirst; tongue moist; no deafness; pulse 100, natural; bowels natural.

Cont. haust. anod. et diæta.

27th.—Slept well; tongue moist, but whitish; pulse 110, full, and soft; skin not pungent.

Cont.

28th.—Convalescent.

Steak to day, and daily.

Feb. 1.—Dismiss to-morrow after breakfast.

No. VII.

Case of Pulmonic Fever mistaken in the Commencement for Pleurisy, and successfully treated as such.

J. R. æt. 26.

March 27, 1817.—Complains of severe pains extending from one hypochondrium to the other, and darting upwards; also of dyspnœa and cough, with slight expectoration; and on full inspiration the above mentioned pains are greatly aggravated.

Appetite impaired; thirst great; sleeps ill; belly regular; pulse 100, moderately full.

Has been bled, but is ignorant to what extent, and has used no remedies.

Mitt. sanguis e brachio ad ℥xiv. Capt. statim. pulv. jalap. comp. ℥i.

28th.—Fainted during the operation of bleeding, when the pain remitted and has not returned; blood not buffy; belly freely opened by the jalap; slept well; face flushed; tongue white, great thirst; pulse 100, full; skin very hot, and covered with a copious perspiration.

Rep. V. S. ad ℥xvi. et bibat. pot acid. veget. ad libit.

29th.—Not more than ℥ix. of blood could be got; blood not buffy; feels better; face less flushed; pulse 108, full; skin warm; tongue clean; much thirst; bowels loose.

Habt. pot. acid. veget. lb. iv. indies.

30th.—Makes no complaint but of thirst, but has some deafness, which he says came on since admission; tongue white; bowels loose; pulse 98.

Capt. haust. ex. oleo. ricini.

31st.—Convalescent; pulse 94. Continue.

April 1st.—Head has some appearance of being affected. He is considerably deaf, requires some time to recollect himself; has a hesitation in his speech, and is unsteady in his gait; says these circumstances are not natural to him. His florid colour is gone, and his abdomen is large and has a pasty feel; pulse 100; moderate strength.

Abradatur capill. et lavetur caput tinct. cantharid.

Capt. pil. aloes. et gambog. gr. x. omni trihorio ad catharsin.

2d.—Fatuous appearance rather increasing; bowels very loose, but still tumid; pulse 98; considerable difficulty of breathing, especially in the recumbent posture.

Int. pil. Capt tinct. scillæ gr. x. quater indies. Let him have a bit of meat to dinner daily.

3d.—Is very deaf, and slow in answering questions; pulse 106.

Cont. tinct. scill. et applic. vesicat. capiti.

4th.—Blister rose well, and he is better; functions regular; pulse 100.

Curetur pars exulcerata ungt. sabinæ.

5th.—Issue discharges well; belly still tumid.

Cont. med. et capt. pil. aloes. et gambog. gr. x.

6th.—Medicine operated but gently; issue has discharged much, but now less. He has still a tottering gait, but his hearing is much improved, and he is much more distinct; pulse 96.

Curetur ulcus ungt. pulv. canthar. Rep. pil.

7th.—Seems to improve, but complains of weakness; abdomen still stuffed, but scarcely so large as before; pulse 92; tongue white.

Cont. med. et capt. pulv. cinch. ʒss. ter indies.

8th.—Continues to recover. Pulse 120

Cont. med To have a bottle of porter daily.

9th.—Convalescent; still some deafness and hesitation of speech; pulse 112. Continue.

10th and 11th.—Pulse 110; recovers. Continue.

12th.—Perspires very freely this morning; pulse 106. Continue.

14th.—Recovers in every respect; belly not so hard; pulse 100.

Cont.

15th, pulse 100; 16th, pulse 96; 17th, pulse 96; 18th, pulse 94.

20th.—Dismissed cured.

No. VIII.

Case of Pulmonic Fever, with Hæmaturia, successfully treated by Depletion.

R. C. Servant, æt 35. No. 21 of Fever Table.

Jan 2d.—Complains of occasional flying pains through his head, with tinnitus aurium and vertigo on attempting to walk; pain and general oppression about the chest, increased by cough, full inspiration and pressure, and attended with a viscid white expectoration; is also affected with occasional rigors, alternating with heat; great languor, and unwillingness to be disturbed.

Pulse 88, full; tongue furred at its base; moist at its apex, with bad taste of mouth; appetite bad; thirst considerable; bowels open from medicine, but previously bound; urine scanty, of a deep red colour, retained with great difficulty, and, while passing, occasioning considerable pain; skin dry and pungent; respiration rather hurried; sleeps ill.

On Thursday week, December 25, was seized with alternate rigors, and flushings, headach, and the other symptoms, which continued unabated until he came here, but since which he thinks himself easier; has never been in the way of contagion from fever, and says he was much

exposed to cold and wet on Monday week, December 22, while shooting, which he assigns as the cause of his illness; has used no remedies except a few laxative pills two days ago, which operated well, but did not at all relieve his symptoms.

Applic. vesicat. pector. et capt. mist. mucilag. acid. ℥ij. urgente tussi.

3d.—Blister has risen; breathing better; urine bloody, and precipitated by infusion of galls, retained with difficulty, and made with pain; pulse 112, soft.

Capt. sulph. sodæ ℥j. Cont. mist. mucilag.

4th.—Urine still bloody, and gives a curdy precipitate, with infusion of galls; made without pain; some lightness of head; breathing quick; pulse 110; moderate; tongue furred; salts operated well.

Mitt. sang. ad ℥viij. Int. sulph. sod. Bibat. pot. acid. mineral. ad libit.

5th.—Blood separated much serum, and shewed an appearance of buff; urine still coagulated by the galls, but made without pain; no headach; breathing natural, and makes no complaint; pulse 104, febrile; skin warm; tongue white, slightly parched.

Capt. mist. salin. amm. ℥ij. omni trihorio. Cont. pot. acid.

6th.—Urine no longer bloody, but deposits a very copious sediment, and coagulates with galls; expectoration has all along been tinged with blood; slept well; makes little complaint, but has much cough; pulse 100, moderate; tongue parched, not foul; bowels regular.

Cont.

7th.—Good deal of sopor; some cough; no headach; bowels regular; urine natural colour; deposits a copious lateritious sediment, and is precipitated by galls; made without pain; pulse 86, febrile, but not strong; skin warm, not pungent; tongue slightly parched; sleeps well.

Rep. mist. Capt. h. s. haust. anod.

8th.—Is more refreshed to day; no complaint of breast or urine; urine not bloody, but deposits a copious sediment, and is precipitated by galls; thirst considerable; tongue moist; pulse 102, moderate; skin warm, but not parched; slept well; expectoration apparently purulent, but not tinged with blood.

Cont. medicam.

9th.—Fever apparently gone; very little spitting; no blood; tongue moist; pulse 80, moderate, soft; sleeps well; less thirst; bowels regular.

Cont.

10th.—Convalescent and asks for steak.

Cont.

11th.—No cough; urine natural; complains only of weakness; pulse 84, good strength; moderate thirst; little expectoration, not bloody; respiration free.

To have milk instead of beer. Cont. alia.

12th.—No complaint; appetite returns.

To have a bit of steak daily. Interm. med.

13th —Convalescent.

Cont.

14th.—Recovers well.

Cont.

15th.—Dismissed cured.

No. IX.

Case of Cephalic Fever, with Maniacal Delirium, succeeded by obstinate Headach, and an Eruption of Lichen Simplex.

J. F. Policeman, æt. 26. No. 17 of Fever Table.

Dec. 16th.—Complains of severe fits of cough, occasioning, while they continue, some degree of vertigo, and attended with expectoration of a thin white matter; complains also of considerable nausea and much general debility.

Pulse 118, not very full; tongue white and parched; appetite bad; belly bound; surface pungently hot; thirst and respiration natural; sleeps well, but at times disturbed with startings; was dismissed from the hospital about a fortnight ago a convalescent from fever; and after being exposed to fresh cold, his former symptoms recurred. His house is dry and airy, and he has never been in any way exposed to contagion of fever.

Has taken four powders, the nature of which he is ignorant of, which made him very sick, but produced little vomiting, and afforded no relief of symptoms.

17th.—Has no headach or pain of back; some cough; no thirst; tongue white but moist; some appetite; bowels regular; urine free; slept tolerably; skin moist, warm.

Capt. stat. pulv. ex calomel gr. v. et pulv. antimon. gr. iij. Capt. h. s. haust. anod. antimon.

18th.—Pulse 126; heat 99; tongue white; great thirst; some muttering in his sleep; bowels regular.

Rep. pulv. ut heri. Int. haust. anod. et lavet. caput aq. et aceto.

19th.—Complains only of weakness; tongue whitish; pulse 126, but he had been up.

Int. med. Let him have tea twice a day.

20th.—Had much delirium for some nights past, and confusion of thought in the day; heat 100; pulse 100, moderate; tongue white; skin moist; two stools.

H. S. cap. haust. e tinct. lactucarii gtts. L. lavet. caput assidue aq. frigid. et aceto.

21st.—Has considerable delirium; pulse 122, small; tongue clean; bowels regular; skin not hot.

Int. omnia. Habt. vin. rubri Lus. ℥vi. indies. Applicr. vesicat. capiti.

22d.—Was very troublesome in the night, and attempted to pull some of the other patients out of bed; ideas confused even when awake; eye unsettled; is free from fever, although his pulse is variable; functions reported regular.

Int. med. et ℞ ol. volat. terebinthin. ℥j. Sacch. albi. ℥i. tere. simul, et inter. terend. adde aq. menth. piperit. lb. i. ft. emuls. cujus capt. ℥i. ter indies. Let him be removed to the private room for furious patients.

29th.—For three days after his removal the delirium continued unabated, although the functions remained perfectly natural; since that time he has gradually recovered; used the antimonial powders, and an anodyne linctus for some cough.

Quite collected now; tongue clean; thirst moderate; bowels rather costive.

℞ Calomel gr. v. pulv. antimon. gr. iij. M. Capt. bis indies nisi superven. catharsis. Habt. mist. mucilag. acid. urgent. tussi.

30th.—Quite collected; tongue rather white; pulse 92; one stool only; skin rather warm.

Cont. pulv. calomel et antimon. et mist. mucilag.

31st.—Passed a good night; tongue clean; pulse 100, full, and slightly dicrotous; bowels costive.

Int. pulv. Cont. mist. Capt. sulph. sodæ ℥i.

Jan. 1st.—Salts had effect; mind quite collected; breath still warm; pulse 100, full; recovers strength, and slept well.

Cont. mist.

2d.—Natural copious stool this morning; sleeps well; no confusion, but has pain of head when he coughs; pulse 100, full.

Cont.

3d.—Complains of headach in the left parietal region, increased on coughing; pulse 94, rather bounding; appetite good; bowels regular.

Int. vinum. Cont. mist. mucilag. acid. Appli. hirud. viij. tempori sinist.

4th.—Four of the leeches bled well, but have not relieved his headach; pulse 90, full; slept well; bowels regular; tongue whitish, moist.

Mitt. sang. ad ℥xij Cont. mist. mucilag. acid.

5th.—Headach gone since he was bled; blood separated much serum, and no buffy coat; slept well; bowels regular.

Cont. mist. mucilag. acid.

6th.—Has some return of headach, and slept tolerably; pulse 96, still full; bowels regular; tongue clean.

Applicet. vesicat. parti capit. dolent. Capt. pulv. antimon. gr. ij ter indies.

7th.—Headach gone; a good night; blister risen; pulse 106, full; bowels costive.

Rep. med. addend. cuique dosi pulv. antim. calomel. gr. v. nisi superven. catharsis.

8th.—Bowels loose; no headach; an itchy papular eruption on the neck and breast; sleeps well; functions natural.

Lavet. eruptio. solut. sulphuret. potass. Cont. alia.

9th.—Sits up; return of appetite; no headach; pulse natural.

Rep. solutio. Int. alia. A steak to-day, and daily.

10th.—Eruption going off; pulse at present 120; otherwise convalescent.

Cont.

11th.—Makes no complaint, but his pulse is 128, and of good strength; eruption almost gone; bowels regular; sleeps indifferently.

Capt. h. s. haust. anod.

12th.—Has slight occasional headach of left side; pulse 112 and full, when lying in bed; bowels costive; eruption declining.

Int. haust. anod. Cont. solut. sulphur. potass. Capt. solut. arsenit. potass. ℥ij. bis indies.

13th.—Has only occasional slight headach; pulse in bed 88, not full or throbbing; bowels costive.

Cont. med. Capt. pulv. antim. gr. v. omni hora ad catharsin.

14th.—No complaint except of his medicine; pulse in bed 82, not full.

Int. solut. arsenic. Cont. solut. sulphur. potass. et pulv. antimon. Double allowance of bread.

16th.—Has some return of headach, especially at night; pulse in bed about 80, when up 112.

Applicet. vesicat. pone aurem sinist. Cont alia.

17th.—Blister risen well, which relieved his headach generally, but since he rose complains of pain in a small spot over the eye; eruption quite gone; pulse 100, moderate strength; functions natural.

Int. med. Fiat ulcus perpetuum pone aurem sinist. Cont. diæta.

18th.—Headach gone; only weak; pulse 106, moderately full and strong.

Cont. ulcus et diæta.

19th.—No headach; pulse 94, natural.

Cont.

20th.—Dismiss. Cured.

No. X.

Case of severe Pulmonic Fever terminating fatally on the 6th day.

J. L. Shoemaker, æt. 33.

Dec. 31st 1817.—Complains of severe pain of head, with tinnitus aurium and vertigo, and intolerance of light, soreness of throat on deglutition, pain of breast and epigastrium;

with a sense of oppression and tightness about the præcordia, which he says is much aggravated by pressure and taking food, and is at times attended with considerable nausea and vomiting. Is also affected with cough, which increases very much the complaints of his head, throat, and breast; great lassitude, and general debility; look anxious; respiration oppressed; pulse 114, rather full; tongue foul; appetite bad; thirst considerable; belly and urine natural, surface somewhat pungent; sleeps ill.

Was seized on Sunday evening, Dec. 28th, with severe gripes and diarrhœa, which ceased yesterday. Was also seized at the same time with headach, and the other symptoms as at present. Does not know that there was fever in his neighbourhood, and attributes his complaints to exposure to cold and wetness. Has used no remedies.

Applicet hirud. viij. temp. Capt. mist. mucilag. acid. urgent. tussi, et bibat. decoct. aven. libram indies: Cras mane capt. solut. tart. sod. et potass. antimon. ℥iij. omni bihorio ad catharsin.

1st, 5th day.—In the waiting-room was very ill, but was relieved by vomiting; walked to the ward with assistance, but his knees frequently bent under him. At eight in the evening he had confusion, as if from intoxication, and gave some account of his symptoms, but assented to every one suggested to him. The leeches were applied about 8 last night, and bled freely, and the solution gave him two stools. At 10 he got a drink of water, and has not since been able to speak. He now lies in a state of total insensibility, with laborious breathing, and occasional moaning; respirations 40 in the minute; inspiration quick, expiration slower; pupils contracted, though not exposed to light; limbs flaccid and motionless; pulse 120, rather full.

Capt. stat. sulph. zinci ℈i. ex aq. ℥i. et applic. vesicat. ampl. pectori necnon injic. enema purgans.

2d, 6th day.—The emetic and injection were given, and the blister applied, but all without effect, and he died before 5 o'clock in the evening, without any change of symptoms.

Dissection.

The veins accompanying the branches of the middle meningeal artery on the left side were larger than usual, and very turgid with blood. Between the arachnoid membrane

and pia mater, there was a copious effusion of serous fluid, which over the anterior left lobe, and the upper and posterior part of the right hemisphere, were tinged of a blood red colour. The ventricles contained about ℥ss. of a clear and colourless watery fluid. The substance of the brain was every where of a natural structure. Both lungs throughout the greater part of their substance were loaded with a serous fluid, which gave them the consistence of soft spleen. There was no effusion, however, into either cavity of the pleura. The heart was of a natural size, form, and structure; in the pericardium there was ℥ss. of a slightly reddish fluid.

The viscera of the abdomen were all in a healthy state.

J Gordon, M. D.

No. XI.

Case of Anomalous Fever terminating fatally on the 9th day.

Mary Smith, æt. 31. Married.

July 2d.—Complains of severe pain at scrobiculus cordis, lower part of sternum, and under the left mamma, which prevents full inspiration, and is much increased on coughing; also of much pain of head and loins, with some vertigo; has occasional vomiting, particularly after taking any thing; a troublesome cough and difficult expectoration; tongue nearly clean, but rather dry; some thirst; slight sore throat; pulse 120, rather weak; respiration 35; heat 102, rather pungent; occasional alternations of temperature; bowels not open for three days; some deafness; small petechiæ over the whole body except the hands and face.

Was seized three days ago with rigors, succeeded by heat, nausea and vomiting; also with pain of the chest, back, and head; has had a cough for a long time; does not know exactly when the petechiæ appeared.

Was exposed to the contagion of fever about six weeks ago; has used no medicines.

Stat. fiat venesect. ad ℥xij. Capt. submur. hyd. gr. iij. pulv. jal. comp. ℥ss. et cras mane infus. sen. ad plenam catharsin.

3d, 4th day.—Twelve ounces of blood drawn, which relieved the pain of head and breast; blood coagulated without separation of serum or buffy coat; medicine operated very much; slept well; less pain of chest and headach; pulse 120, very weak; tongue whitish; less thirst; heat 104, not pungent; respiration short, and rather difficult; thorax on percussion sounds well, except at the lower part to the left of the sternum, where it seems to cause pain; some nausea and some vomiting.

Ap. cucurb. cruent. sterno. ad ℥xvj. et cap. tinct. digit. gt. x. ter indies.

4th, 5th day.—Thirteen ounces of blood got by cupping, but she says without relief, although she now complains chiefly of the bowels; slept better; pulse 120, very weak; respiration 32, apparently difficult; heat 102½, not pungent; one motion last night; tongue white, but moist; much thirst; bad taste; nausea; dry cough.

Intermitt. medicamenta. Capt. statim. haust. ex. ol. ricini. et hor. som. haust. anod. ant.

5th, 6th day.—Medicine operated well, and her complaints are all relieved.

Intermit. med. et capt. tinct. rhœi et aloes ℥ss. bis indies.

6th, 7th day.—Two loose dejections yesterday afternoon; had a cold clammy sweat, and about 10 P. M. much singultus, which went off and returned about 11.

℞ Sp. lav. comp. ℥ss. æth. sulph. suc. cit. med. ãã ℥ij. Capt. ℥ss. et rep. omni semi hora urgente singultu.

Two or three doses of mixture removed the hiccup; since two this morning she has not spoken; pulse not distinct; skin cold and clammy; tongue not foul; much thirst; points to the scrobiculus cordis as painful; has frequent eructation; is perfectly sensible, and able to move her arms and legs strongly, although she generally lies with her knees drawn up; countenance is not much changed, though her eyes look stronger.

℞ Sp. æth. nit. ℥i. tinct. op. gr. xx. aq. menth. pip. ℥i. ft. haust. stat. sumend. ℞ Sp. vin. Gal. ℥iij. Capt. ℥ss. ex aq. calidæ ℥i. omni hora. Injic. enema fœtid.

7th, 8th day.—Was better for her draught after yesterday's visit; took the brandy and water readily, and had a quiet night. About ten last night began to speak, and she now speaks with a strong voice and perfect articulation;

complains of pain in her head and belly, and the epigastrium is exceedingly sensible to pressure; occasional nausea, with yawning and eructation; pulse scarcely to be felt, about 120; has generally a cold clammy sweat over the whole body, but her feet continue warm; tongue foul; much thirst; no dejection.

Rep. haust. ut heri. ℞ Sp. vin. Gal. ℥ii. aq. menth. pip. ℥viij. Capt. ℥ss. omni hora. Nisi dej. alv. injic. en. dom.

8th, 9th day.—Injection given without effect, and the draught and mixture were taken. About nine last night more dejected. Gradually declined, and quietly expired about half after three in the morning.

Dissection.

The cavity of the spinal canal was laid open by sawing the spinal plates forming the posterior wall of the cavity as far down as the 3d or 4th lumbar vertebræ. Through the whole of this course, the spinal chord exhibited no appearance which could with confidence be considered morbid. Drops of blood, in considerable numbers, appeared *passim* on the theca and neurilema; but, as these were the result of the rupture of the connecting vessels, and as these vessels, from the supine position of the body, both during life and after death, might be distended in every case, no positive inference could be drawn from this circumstance. One part, opposite to the 1st, 2d, and 3d dorsal vertebræ, was, in the opinion of one of the gentlemen present, more vascular than usual; this, when removed from the body, was sponged with water, but no decided or unequivocal appearance presented. The cavity of the cranium was laid open by sawing through a great part of its posterior wall, chiefly the occipital bone. The base of the brain presented some effusion of serum, but very slight, and there was almost none on the superior surface of the hemisphere. The ventricles being laid open, appeared healthy, the vessels between the epithelion and cerebral substance, only being more distinct than usual. Nothing morbid occurred in the cavity of the abdomen; the liver and spleen seemed healthy, but three biliary concretions of a tetrahedral form were found in the gall-bladder. The kidneys, ureters, and urinary bladder, presented nothing unusual.

DAVID CRAIGIE.

No. XII.

Case of Fever terminating fatally on the 14th day, with Apoplectic Symptoms.

J. A. Wright, æt. 30. No. 65 of Fever Table.

June 14, 10th day.—Is affected with pain of forehead, tinnitus aurium, and severe pain under the sternum, which is increased by coughing, or taking a full inspiration; also with much pain in the lower part of the abdomen, which is increased by pressure; he has a troublesome cough, with but little expectoration; bowels open, but some tormina; tongue white and dry; much thirst; pulse 100, rather weak; heat 103; surface feels hot and dry.

About ten days ago was seized with severe headach, general uneasiness, and nausea. A few days ago had much sweating, which seems to have been excited by artificial means, but without relief. His bowels have been kept open by purgatives from the first; has used an emetic with but little relief. Yesterday he was greatly relieved by bleeding; the blood is reported to have been sizy.

Thinks his complaints may have been caused by being exposed to a shower when under a profuse sweat.

Statim fiat venesect. ad ℥xvi. Vespere injic. enema domest. Capt. cras mane sulph. magnes. ℥ss. Adhibeantur semicupium et lav. tepid. urgente calore. Habt. pot. acid. veg. pro potu communi. Ap. empl. vesic. sterno.

15th, 11th day.—Much relieved by bleeding; blister did not operate well; much relieved by enema and semicupium; one motion from the cathartic; pain of abdomen gone; pain of pit of stomach alleviated; pain of chest much felt on full inspiration; cough, expectoration, headach, affection of tongue the same; p. 116, stronger; heat 103; blood very slightly sizy.

Capt. submur. hyd. gr. i. opii gr. ss. forma, pil. quater indies. Rep. enem. emol. vespere semicupium, et nisi fia tussis et dolor pectoris iterum repetat. venesect. ad ℥xvi. vespere.

16th, 12th day.—Slept well; no headach; much thirst; no pain of breast felt, except on very full inspiration; no pain of abdomen; p. 116, weak; heat 105; enema not given. Syncope after the semicupium, but thinks himself better for it. No dej.

Rep. enema, semicup. pil. submur hyd. Utatur mist. mucilaginosa.

17th, 13th day.—Slept much and is drowsy; talks in his sleep; makes no complaint but of weakness and difficulty of expectoration exciting cough; dislikes the semicupium, which produces faintness; some subsultus tendinum; bowels open; tongue nearly clean, but dry, and much thirst; no bad taste; pulse 116, soft; heat under the tongue 100, not pungent.

Intermitt. semicup. et enema. Repet. pil. submur. hyd. et opii, et mist. mucilag. Abrad. capillitium et lavet. caput aqua frigida et aceto.

Hora 8va. P. M.—Pulse 124, small, regular, not weak; dozes a great deal, with some stertorous breathing; has much delirium and subsultus tendinum; gives himself over, and spoke of his funeral. Every thing appears white to him; one loose motion; tongue extremely dry, but clean; great thirst; skin very hot, with some tendency to sweat; got an anodyne antimonial draught, with tinct. opii gutt. 40, and a blister was applied to his head.

18th, 14th day.—After his draught he fell very quiet, and did not speak during the night. Died this morning at 7.

Dissection not permitted.

No. XIII.

Case of continued Fever terminating fatally on the 16th day, with severe Nervous Symptoms.

D. O. Shoemaker, aged 20.

June 16, 1818.—Complains of headach, chiefly at the occiput, and pain of back extending along the whole of the spine, both occasionally severe, and little affected by change of posture. The headach is attended with giddiness on sitting up, and some confusion of mind. He has also a pain at the middle of the sternum, increased by full inspiration, with a slight cough, and a copious offensive expectoration. He complains of much nausea, and is frequently affected with rigors and sweatings, but generally feels hot. A few petechiæ of a pale red colour appear about the

breast, wrist, and knees; countenance flushed; pulse 102 in the recumbent, 116 in the semi-erect posture, and rather strong; heat under the tongue 104; tongue clammy, and slightly white; much thirst, but no bad taste; bowels constipated, having had no motion for these two days; urine natural. He sleeps ill from headach, feels weak, and has some tremor.

The complaint commenced five days ago, with rigors, nausea, pain of the neck, back, and limbs, soon followed by headach, cough, and pain of breast, all of which have been progressively getting worse. He can assign no cause for his illness; previous to which he enjoyed good health, and has used no remedy, except a dose of sulphate of magnesia three days ago.

Injic. vespere enema domest. Capiat cras mane infus. senn. ad alvi plenam solutionem.

17th, 7th day of the disease.—Injection produced one copious stool, and the inf. sennæ this morning has produced another offensive; petechiæ nearly gone; countenance less flushed; tongue dry, and yellowish; much thirst; pulse 102, dicrotous; heat under tongue 102, pungent to the touch; pain of breast better, but cough excited by full inspiration; great headach, giddiness, and pain of back, and has some muttering; hearing acute.

Abrad. capillitium, et lavetur caput aqua frigida cum aceto. Mittr. sanguis ad ℥x. et hora somni habt. haust. anod. antimon. Bibat pot. acid. vegetab.

18th, 8th day.—Had nausea after venesection, but the headach and pain of back were relieved by it. Blood not sizy, coagulum soft, with little separation of serum; slept pretty well; pain of breast removed; little cough; green bilious vomiting this morning, with nausea, on taking any thing; pulse 110, good strength; heat 103, great thirst; tongue rather foul, and arid; petechiæ disappearing, but a marbling of the skin still visible. Interm. pot. acid. veget.

Contr. lavatio capitis, et haust. anodyn. antimonial.

Hora 8va, P. M.—Nausea relieved, and complains chiefly of pain of back; pulse 108, not weak; heat 104, but skin not pungent; petechiæ florid, numerous, and distinct, and tongue dry, but not crusted; great thirst, and bad taste, and is restless, and rather dejected.

19th, 9th day.—Slept pretty well, but is very drowsy and dejected; some muttering, and complaining; no motion; no

deafness; countenance slightly flushed; petechiæ darker; tongue very dry, and brown, great thirst, and not foul; pulse 120, soft, but of tolerable strength; heat 102.

Capt. statim haust. anod. antim. et repet. vespere. Intermit. alia. Injic. enema domestic. et applicr. statim vesicator. capiti. Let him have a bottle of porter for drink.

Hora 8va, P. M.—No motion, and little urine; dozes much, but restless with muttering and delirium, though with no complaint but of thirst; pulse 132, small, quick, not weak; heat 104; tongue brown, and arid.

Intermittr. cerevisia fortior, et haust. anod. antim. Applic. statim hirud. 4 temporibus.

20th, 10th day.—Leeches and blister operated well; slept ill, though with less delirium; one motion from injection, and urine more copious; appears better; is distinct, and complains of weakness, giddiness, and thirst; pulse 112, an hour ago very weak, now of good strength; heat 99, but the skin arid; tongue still dry, but moister than before. Petechiæ larger and darker.

Intermittr. medicamenta. To have immediately bottled table-beer for drink.

21st, 11th day.—He took last night half an ounce of Rochelle salts in solution, which he vomited; slept ill. As he had no motion for two days, a domestic enema was given this morning, which produced one motion; pulse 128, pretty strong; heat 100; skin rather pungent; efflorescence declines; eyes rather suffused; countenance better; tongue moister; much thirst; no appetite, deafness, or tremor; less delirium.

Capt. elect. sennæ dr. 1. omni trihorio ad alvi solutionem. Let him have a little tea. Continue the table-beer.

Hora 8va, P. M.—Dislikes the elect. and took but one dose, which produced a small offensive motion; urine more copious; blister discharges well: has an evening exacerbation; pulse 136, full and strong; heat 103.

Applicr. statim hirud. 6 temp.; injic. statim enema domest.

June 22d, 12th day.—Leeches acted well; one copious stool with scybala from the injection; slept ill, and was sponged occasionally with relief; complains of gene-

ral uneasiness and great weakness; some delirium and mutterin., but less than formerly; petechiæ still visible; tongue dry, chapt, and of a dark colour; lips and teeth with black sordes; much thirst and bad taste; less tremor and no deafness; pulse 128; heat 103; wishes for sleep and relief from thirst.

℞ Tart. potass. et sod. unc. ½. Tart. antim. gr. 1. Aq. fontan. unc. 4. Capt. unc. ½ omni hora donec dejecerit alvus. Capt. etiam mist. camphorat. unc. 2 omni bihorio.

Hora 8va, P. M.—Had no motion; sleeps much, with less muttering and delirium; pulse 138, strong and tense; heat 102; feet chilly.

Injic. statim enema purgans et adhib. pediluv.

June 23d, 13th day.—One motion from the enema; slept pretty well; feels rather better. Complains of giddiness, pain of back, and general uneasiness, but no headach or delirium; tongue still dry and chapt, great thirst; countenance more natural; eyes suffused; petechiæ still visible, and some pimples appear about his face; pulse 132, more tranquil; heat 102; dislikes change of temperature from currents of air, and being uncovered.

Capt. statim phosphat. sodæ, unc. 1. et hora somni haust. anod. antimon.

Hora 8va, P. M.—Two small thin motions; urine copious; pulse 140, not weak; heat 103, pungent; complains chiefly of thirst, and is impatient of being touched; much tremor and muttering, with some delirium; no deafness; some difficulty of breathing.

Intermitt. mist. camphor; adhibr. lavatio frigida.

June 24th, 14th day.—Took his anodyne draught, and had a quiet night; no motion, but passes urine well; complains of little but weakness, and sensibility to the touch, and exposure to the air; some delirium and deafness, and tendency to coma, but is distinct when spoken to; petechiæ stationary, but some desquamation on his face; eyes slightly suffused; pulse about 160, easily compressible; heat 105; tongue dry, brown, and chapt; much thirst, but reports himself better; took porridge with some appetite.

Injic. statim enema domest. et capt. vini. rubr. Lusitan. unc. 1, et rept. omni hora pro re nata.

Hora 8va, P.M.—Two fluid light-coloured stools from the injection; likes the wine; has had much delirium, moaning,

muttering, and restlessness, with occasional dozing; complains of soreness of head; pain at times in the breast, with some difficulty of breathing and chilliness; pulse 145, easily reckoned, and not weak; heat 104; other symptoms the same as in the morning.

Omittr. vinum et haust. anod.

June 25th, 15th day.—No motion since the evening; passed a restless night, with much delirium; complains of general uneasiness, debility, and tightness about the præcordia, with pain of back; petechiæ disappearing; some ecchymosis on the left side and hip; countenance flushed; eyes less suffused; features sharp; voice strong, and articulation distinct; tongue dry, brown, and cracked; much thirst; no appetite; pulse 145, compressible, but easily reckoned; heat 103.

Applicr. statim vesicat. pectori, et hirud. 8 temporibus, et postea lavetur caput. aq. frigida cum aceto. Capt. statim Hydr. submuriat. gr. 5. et Pulv. jalap. gr. 10. forma boli; necnon statim Extract. Hyoscyami gr. 5. ex Aquæ fontan. unc. 1.—Iiimatur ecchym. Tinct. opii camph.

Hora 8va, P. M.

℞ Sulphat magnes. unc. 1½. Aq. menth. pip. Aq. fontan. ana unc. 4. M. capiat unc. 2, omni hora.

June 26th, 16th day.—Salts have produced five fluid light-coloured motions. Besides the leeches of yesterday, twelve more were applied this morning which bled well; the pediluvium and warm fomentations of the abdomen were employed last night; he has had no sleep, and been very restless and delirious; pulse very indistinct, about 145; heat 103; blister has not risen well; tongue very dry, brown, and cracked in the middle, clean at the edges, but not moist; petechiæ as before; takes little food or drink; eyes suffused; countenance sharp and wild; nostrils dilated in breathing, which seems to be rather difficult; complains of being chilly in general; speech less distinct, but moves his arms and legs with tolerable power; no subsultus; abdomen tense, made urine at 9 this morning; ecchymosis on the left hip rather better.

Let his head be kept constantly cool with cloths and very cold water. ℞ Spirit. æther. nit. dr. 2, aq. menth. pip. unc. 2. Capt. ℥ ss. urgente frigore et si superven. rigores, detur statim haust. anod. antimon.

Hora 8va, P.M.—Took the haust. anod. ant. soon after the visit, since which he has lain quiet, in a dozing state, without taking any thing or passing any evacuation. The wet cloths about his head have from the high temperature of the part required frequent renewal. The blister has produced little effect. He lies at present on his back, with his knees drawn up, and appears to have been rubbing his breast; his countenance is sharp and ghastly; his eyes suffused and half open; the pupils contracted and insensible to light; the lips and teeth dry, and obstructed with sordes; pulse scarcely to be counted, but apparently about 75; heat in the axilla 108; respir. 22; he breathes rather laboriously with moaning and dilated nostrils; the feet are cold and damp, the other parts of the body extremely hot and pungent, with a cold sweat beginning to appear on the face; much meteorismus ventriculi, which yields a completely tympanitic sound.

His feet were directed to be kept warm by means of a vessel of hot water.

He continued afterwards in the same state, except that the pupils became dilated, and the heat sunk to 106, and he died at half past nine the same evening.

Dissection not permitted.

No. XIV.

Case of Fever terminating fatally on the 19th day, with severe Nervous Symptoms.

H. W. æt. 16.

January 3d, 1818.—Complains of severe headach, referred to the frontal region, with vertigo, tinnitus aurium and deafness, slight nausea, but no vomiting. Complains also of languor, and prostration of strength, rigors, alternating with heats, pain of the epigastrium, and frequently of the whole abdomen, which is aggravated by pressure, by coughing, and a full inspiration; has pain at the inferior part of the spinal column; slight cough, but no expectoration; bad taste of mouth; gums and teeth are covered with a dark brown crust; face is flushed; eyes somewhat suffused, with intolerance of light; pulse 106, hard but small; belly reported regular; tongue moist, but covered with a

dark brown matter; breath warm and fetid. Catamenia reg. appetite bad, but little thirst.

Complaints began nine days ago with headach, and the above mentioned symptoms; but she feels better in every respect within these two days.

Has used no medicine. Abradatur capillit. et lavetur caput aq. frigida cum aceto.

4th, 10th day.—Has a great deal of delirium, and is almost deaf; gets out of bed; much thirst; natural stool; pulse 104, neither full nor hard, but not weak; skin warm, slightly pungent; warm.

Fiat venesect. ad ℥xii. et capt. mist. salin. ℥ij. omni trihorio. Contr. lavatio aq. frigid. Applicet. vesic. pectori.

5th, 11th day.—Delirium without intermission, and can scarcely be kept in bed; was conscious of being bled; blood separated no serum, but is firmly coagulated. Belly open, and passed a lumbricus; blister risen well; pulse 118, rather small; sleeps none; skin not hot; breath scarcely warm; tongue not foul.

Curetur pars exulc. ung. epispast. ut fiat ulcus perpetuum. Capt. statim haust. anod. Int. alia.

6th, 12th day.—Fell quiet soon after getting the draught, and only gave occasional cries during the night. Catamenia appeared in excessive quantity; much more collected this morning; complains of the pain of the blister, and answers questions, but is very deaf; headach better; makes little complaint; tongue rather parched, not very foul; belly regular; very dark stools; fetid urine; not insensible to the calls of nature; pulse 106, small, but of good strength; heat of skin moderate, some moisture.

Capt. elect. sennæ ℥i. ad alvum solvend. Rept. haust. anod. hora somni. Bibat pot. acid. veg. ad libitum.

7th, 13th day.—Catamenia still flow, but in moderate quantity; more collected; less deaf; slept well, considerable sopor; pulse 124, moderate strength; skin moderately warm, not harsh; tongue moist; belly natural; urine free; no headach; occasional tinnitus. Complains of pain of back and febrile anxiety; stools dark and still fetid, but less so.

Repr. omnia.

8th, 14th day.—Considerable febrile anxiety; makes no complaint; looks about her, but is still deaf; tongue parched and cracked; a little fur on the teeth and lips; face much

paler; three loose stools, less fetid; urine free; slept quiet; drinks much; considerable sopor; pulse 124, of moderate strength; no eruption.

Continuent. medicam.

9th, 15th day.—Passed her urine once or twice involuntarily; one stool more natural; does not ask for drink, but ceases lamenting when she gets it; some spots about the size of a shilling from pressure, but can lie occasionally on her side; still considerably deaf, but answers when spoken to; though she sleeps a great deal, looks around her; her eye is intelligent; tongue much moister, scarcely dry; still some delirium; pulse 128, vibratory, but of good strength; no subsultus.

Illinantur partes dorsi affect. tinct. opii camph. Int. potus veg. et habeat cervis pro pot. Habeat etiam haust. anod. stat. et rept. vesp.

10th, 16th day.—Has had a great degree of delirium; slept well after the morning draught, but that of the evening seems to have excited her; had copious stools last night, and this morning, more natural in appearance; spot on the back extending; on both trochanters the skin threatens to break; asks for drink; sometimes sensible to the calls of nature; tongue clean and moist; no fur on the teeth, lips, or gums; pulse 112, small, but sufficiently steady and firm.

Repr. statim haust. anod. Injiciatur enema purgans, et curenter partes cutis inflammat. liniment. alb. ovi.

11th, 17th day.—Delirium much abated, and answers distinctly, but complains much; is still considerably deaf; belly painful on pressure; passed no water since yesterday; enema came away without effect; the skin on the right hip is broken; left hip red, and the sacrum extensively livid; has thirst, and asks for drink; tongue moist, not foul; pulse 110, of moderate strength, rather weak.

Injiciatur statim enema domest. et capt. vini rubri Lusitan. ℥i. secund. quaque hora; hora somni haust. anod. Curetur ulcus liniment. alb. ovi, illin. partes lividæ tinct. opii camph. et si opus sit abstrahatur urina ope catheteris.

12th, 18th day.—Became very restless about 3 P. M., and could hardly be kept in bed; but immediately after the visit passed water in bed twice, and the injection brought away little feces. In the evening she was very ill with severe shivering, and her body was generally cold; expressed great pain

on the abdomen being touched; warm water was applied to her feet, and a blister to the abdomen, which has risen during the night. She vomited repeatedly very black, offensive, apparently stercoraceous matter; but since five in the morning has been quieter; takes her wine, which sometimes settles on her stomach; pulse 138, very feeble, sometimes not to be reckoned; tongue not very foul or parched; complains a great deal; delirium almost continual; is very deaf, but sometimes is intelligent; back and left hip not broken; but the right bleeds.

Detur vinum assidue ad ℥ij. vel ℥ss. omni hora. Int. alia, et ℞ ætheris sulph. cum alcoh. ℥ij. tinct. opii ℥ss. syr. simp. ℥i. aq. laur. cinnamon. ℥i. aq. font. ℥iij. M. capt. statim ℥ss. et repr. omni bihorio.

13th, 19th day.—Vomiting of a very fetid fluid, of a mixed yellow and dark colour, continued at intervals; and she expired about four in the evening without convulsions; at eight the body was already rigid, livid on the back and arms, and decomposition begun.

Dissection not permitted.

No. XV.

Case of Petechial Fever terminating fatally from Disease of the Mucous Coat of the Intestines.

R. F. æt. 60.

Dec. 16th 1817.—Complains of languor and great debility, with general pain over the whole body, which cannot be referred to one place more than another; nausea, but no vomiting; rigors, alternating with heat; pain at the scrobiculus cordis, with a sense of weight, increased by pressure and a full inspiration; slight cough, but no expectoration. There is an eruption of purple-coloured spots over the whole body, but particularly on the shoulders, breast, and fore-arms, which are not elevated above the surface, nor accompanied with pain or itchiness; pulse 71, rather full; tongue parched and foul; no stool since the 15th; appetite bad; skin rather hot; urgent thirst; sleeps ill. Complaints began 16 days ago, with headach,

rigors, and sweating. On the first attack had pain over the whole body; sense of weight at the scrobiculus. Says the eruption of purple spots first appeared on Sunday last, and was first observed upon her shoulders, breast, and arms, but soon spread over the whole body. Attributes her complaints to cold and wetness, but about three weeks ago dressed the body of a woman who had died from fever, and she was soon after seized with languor and lassitude. Used no medicine except two purgative powders.

17th.—R. infus. sennæ ℥i. singulis horis donec uncias quinque ceperit.

18th.—Much relieved by the purgative, which operated three times; stools very fetid; slept ill; some giddiness and confusion; great thirst; tongue rather parched; pulse 78, pretty full; surface slightly warm; skin broken on the sacrum.

Capt. infus. sennæ ℥ij. omni hora ad catharsin. Mittatur sang. ad ℥iv. et curetur sacrum liniment. albuminis ovi.

19th.—The headach and sickness were relieved by the bleeding; the blood drawn is firmly coagulated and covered with a buffy coat, nearly a third of an inch in thickness, and the serum of that spilt on the tray is gelatinized; many stools, fetid; complains chiefly of weakness and thirst. Petechiæ seem declining; pulse 70, full.

Intr. infus. sennæ. Contr. liniment. alb. ovi, et bibat pot. acid. mineral. ad libitum.

20th.—Slept well; tongue clean; thirst gone; no deafness; petechiæ disappearing.

Contr. med. Let her have a bit of steak daily.

21st.—Did not sleep so well, eruption disappearing. Continue.

22d.—Petechiæ almost gone; makes no complaint; pulse 84, good strength; tongue clean; sore on the back healing.

Intr. potus acidus. Contr. liniment. alb. ovi et diæta. Let her have six ounces of wine daily.

23d.—Complains only of weakness; petechiæ gone; pulse 84; good strength; tongue natural. Continue.

24th.—Was seized last night with diarrhœa; stools remarkably fetid and dark coloured. No other complaint.

Capt. elect. sennæ ℥i. statim, et rept. post tres horas. Hora somni capt. haust. anod. Contr. vinum. Let her have a basin of tea daily.

25th.—Medicine had little effect; stools less fetid; pulse 84; fever and eruption quite gone; still some thirst.

Intr. elect. sennæ. Contr. alia.

26th.—Convalescent. Continue.

27th.—Does not relish her steak; in other respects recovering; cough gone.

Contr. vinum. Intr. alia, et habeat jusculi bovini lb. j. indies.

28th.—Night disturbed by an attack of fetid diarrhœa, followed by sickness and some headach; pulse 100, soft tongue, a little foul.

Capt. tart. sodæ et potass. ℥i. ex aq. lb. ss. Contr. vinum et jusculum bovinum.

29th.—Salts produced several very fetid stools, and she is much relieved to-day; pulse 78.

Intr. tart. sodæ et potass. Capt. pil. hydr. gr. v. omni nocte. Contr. diæta.

30th.—Considerable pain in her bowels, and she passes her stools involuntarily, of very fetid bloody-like matter; strength not returning; pulse 88 of moderate strength; tongue slightly parched.

Intr. med. et diæta et ℞. calom. ℈i. opii gr. iv. micæ panis, q. s. ut fiat mass. dividend in pil. octo. Capt. unam omni bihorio. Let her have arrow root to dinner and supper, and tea to breakfast.

31st.—Looseness still severe; appetite decreased; is very weak; pulse 84. Cont. pilul.

Jan. 1st.—No better; slept ill, purging still very severe; stools dark coloured, and very fetid; pulse 80.

Cont. med. et vin.

2d.—Had a bad night; urine and stools passed involuntarily; countenance livid and pale; teeth and gums covered with a dark brown crust; pulse imperceptible at the wrist; arrow root does not agree.

℞. Acid. sulph. dilut. gtt. xii. tinct. opii gtt. v. Fiat haust. secunda quaque hora sumendus. Let her have 10 ounces of wine daily.

3d.—Died yesterday afternoon about 4 o'clock.

Dissection.—Jan. 4.

An effusion of little more than two ounces of a slightly yellowish serum was found in the cavity of the abdomen. The jejunum and ileum, when examined externally, seem-

ed of the natural appearance, only at four or five different points, particularly towards the lower extremity of the ileum, there were observed patches of about an inch in extent of very marked congestion in the capillary veins of the serous membrane. To the touch, however, both parts of the small intestines felt thicker in their parietes than usual. Spots and lines of venous congestion were perceptible also in the mucous membrane of the caput coli, and in greater number, and of greater extent, in the sigmoid flexure of this intestine, and extending downwards the whole length of the rectum.

On slitting open the intestines at various points from the commencement of the jejunum to the rectum, small purple patches were observed on the mucous membrane, occurring at intervals of an inch or two inches at first, and then gradually running more and more into each other, until towards the termination of the ileum in the colon, the whole surface of the mucous membrane exhibited a deep purple hue. This appearance, the dried preparations of the intestines since made, shew clearly to depend on great congestion in the veins of the mucous membrane. The mucous membrane of the caput coli had a similar appearance, but the arch was almost entirely free from disease. At the sigmoid flexure, however, it began again, and continued increasing in depth of colour in this part of the tube, extending downwards until, at the commencement of the rectum, and all the way down this tube, in addition to the venous congestion, numerous fungous looking patches presented themselves, from a quarter to half an inch broad, elevated fully an eighth of an inch above the surface of the intestine. These had a very vascular appearance, but their surface was covered with a thin yellowish crust, not unlike that which is often seen covering the prominent parts of an open fungus hæmatodes. A quantity of a yellowish bilious matter adhered to the mucous membrane of the jejunum and upper part of the ileum. In the lower part of the ileum and the colon there was nothing but thin light feculent matter.

Jan. 9. J. GORDON, M. D.

No. XVI.

Case of Fever, with deep Yellowness of the Skin, terminating fatally by Hydrocephalus.

W. B. æt. 60.

May 10, 1818, 8th day of the disease.—Complains of pain of his left side, not increased by a full inspiration; pulse 86, low; no thirst; anorexia; tongue foul and dry; bowels have not been open for two or three days; urine in usual quantity, but high coloured, and tinges linen of a yellow colour; the whole surface of a yellow colour, with small petechiæ of a purple hue thinly scattered over it; his speech has not been distinct since the first attack; much languor; eyes of a yellow colour, and very dull, and great inclination to sleep.

Was attacked eight days ago with shiverings; his pulse has been, according to report, full, and sometimes intermitting; petechiæ and yellowness of skin appeared four days ago, thinly scattered over the breast, inside of the arms and thighs.

Attributes his complaints to sleeping in the same bed with his wife, who had just left the Infirmary, where she had been ill of fever; has been long exposed to great fatigue, and has also been in the habit of taking spirituous liquors.

Has used some purgative medicines.

Injiciatur statim enema purgans.

11th, 9th day.—Has had several motions from the injection; fæces seem to be sufficiently tinged, yet the urine is of a deep colour, and communicates it to linen; the skin too is very yellow; hardly any petechiæ; he complains of nothing, but seems to be very drowsy; the tongue is crusted.

℞ Pulv. jalap. gr. xij. Submur. hyd. gr. v. M. Detur quamprimum.—Habt. pot. acid. veget.

12th, 10th day.—His physic has had effect; what he passed is of the same colour as before; he makes no complaint; the skin continues quite yellow; the tongue much crusted; the pulse is quick, but the skin very cool.

Rep. pulv. jalap. cum submur. hyd. ut antea.—Let him have ℥iv. of wine in the day.

13th, 11th day.—He had but an indifferent night, and is very drowsy to-day; the colour of his skin is less intensely yellow than it was; has had two passages, quite of the natural colour; urine rather paler coloured; the pulse is natural both in velocity and in strength; the tongue is dry, and seems to be crusted.

Capt. elect. laxant. coch. parv. ij. h. s. Omit. mist. jalap.

14th, 12th day.—He seems to be nearly as he was, only the skin is less yellow; he has had passage, and it seems there is some excoriation on his back.

Cont. elect. lax.

15th, 13th day.—He is much better; the yellowness of his skin is greatly abated; bowels open.

Contr. elect. laxans. Let him have a dish of tea in the morning. His back to be dusted with oxid. zinc.

17th, 15th day.—He makes no complaint; the yellowness of the skin is almost quite gone.

Cont. elect. lax.

21st.—He has no complaint; appetite good. Let him have full diet.

25th.—Complains of nothing but weakness; he has, however, some thirst; pulse 120, and rather strong; tongue rather foul, but moist; took two tea-spoonfuls of the elect. lax. last night, and had one motion from it.

Habt. elect. lax. coch. parv. ij. h. s. Cont. pot. acid.

26th.—The electuary did not operate; pulse 120; rather weak; tongue rather foul; much thirst, and tremor.

Capiat statim tinct. senn. comp. ℥i. tinct. jalap. ʒij. Cont. elect. laxans et alia. Injic. enem. purg. et capt. cras mane, sulph. sodæ ℥i. more solito, nisi prius plene responderit alvus.

27th.—The injection and salts operated, each once; the motion from the injection was costive, but that from the salts was loose; pulse 120, weak; tongue foul, and dry, rather dark coloured. No other particular complaint, but last night he complained of pain in his loins and inferior extremities.

Omit. vin. Cont. pot. acid. veg. et elect. lax. ad coch. parv. ij.

28th.—Had no motion from the electuary, but had two stools yesterday after the visit; slept ill; has much thirst; tongue very foul, and dry; pulse 110, intermitting, and rather weak; heat 100; feels no pain but soreness of the legs; no appetite; surface dry.

Cont. pot. acid. veg. et hab. statim sulph. sodæ ʒvi. ex aqua more solito. Capt. tertia quaque hora mist. salin. amm. ℥i.

29th.—Alvine evacuations passed without notice; appears very languid; moaning much; pulse quick and feeble.

℞ Vin. rubr. ʒviij. aquæ ℥iv. Capt. ʒj. subinde.

30th.—Yellowness increased; pulse 90, and intermitting; three green and offensive motions.

Rep. vin. ℞ Submur. hyd. gr. i. Opii gr. ss. fiat. Pil. ter. indies sumend.

31st.—Has been since last night in a state of stupor; yellowness of skin and of urine increased; pulse 96, irregular; deglutition difficult; bowels natural.

Rep. vin. et pil. ex. submur. hyd. sine opio.

June 1st.—Same comatose state has continued; fæces and urine passed involuntarily; pulse 94, and regular; yellowness the same; revived after the wine.

Rep. vin. ad lb. i. et submur. hyd.

2d.—Continued in the same comatose state till nine this morning, since which time has revived very much, and is now perfectly sensible; pulse 94, stronger; tongue cleaner; deglutition better; urine and fæces mostly passed involuntarily; excoriation of glutei of both sides; yellowness diminished.

Rep. vin. et subm. hyd. Applic. part. excor. lin. ex album. ovi.

3d.—Has in general been much in the same state as yesterday; pulse 96, and full; no stool; urine passed involuntarily, of yellow colour, and depositing a very copious sediment with mur. hyd.; skin less yellow.

Rep. vin. submur. hyd. et habt. jusc. bov. lb. ij. indies.

4th.—Is lying quiet, but perfectly sensible. An injection last night operated; pulse 100, fuller; excoriations no better. Continue.

5th.—Symptoms the same; skin and urine less yellow; excoriations no better; pulse 90; no dejections. Cont.

6th.—More sensible; no motions, but had one dejection from an enema; excoriations no better; pulse 96; mouth affected.

Rep. vin. et jus. bov. Omit. pil. ex submur. hyd.

7th.—No delirium or coma; pulse 86, and of natural strength; has had elect. lax. without effect; excoriations the same; appetite better.

Rep. vinum, et jus. bovin. To have an egg daily.

8th.—An enema given last night, which brought off a large quantity of black fetid matter; some delirium in the night; excoriation better; pulse 84; urine very high-coloured; yellowness. Continue.

9th.—Good night; less delirium; appetite improving; pulse 100; urine very high coloured; excoriation sloughing; bowels natural, open.

Rep. vin.—jus. bov. et vespere capt. pil. aloet. ij.

10th.—Last night much affected with tremors and coma; slept ill; to-day feels much better; pulse 70; urine very high-coloured; no effect from the pills; countenance more natural.

Rep. vin.—jus. bov.—pil aloet. ij. pluresve si opus sit.

11th.—Three pills taken, which operated; no delirium; countenance much more natural; pulse 90, fuller; urine still high-coloured; ulcerations the same. Cont.

12th.—Slept worse; slight delirium; sores improving; urine very red. Cont.

13th.—Slept well; no delirium; pulse 90, not weak; excoriation improving; urine less high-coloured. Cont.

14th.—Slept well; more delirium; one dejection from an enema given last night; urine less high-coloured; pulse 84, and intermitting at times; countenance more natural. Cont.

15th.—Not so well; sores more painful; some delirium at times, and subsultus tendinum; pulse 90, slightly intermittent; urine more red; three dejections, very black.

Rep. vin. et jus. bov. Capt. mist. cinchon. arom. ℥j. bis indies, et vespere pil. al. iij.

16th.—Slept much; more delirium; countenance worse; urine more high-coloured; pulse 100; no dejection; sores the same. Cont.

17th.—Slept well; some delirium; bowels costive; excoriations cleaning; tongue black and dry; smell cadaverous; much thirst; urine evidently sanguineous; pulse 80, weak, and intermitting; extremities not warm; wishes for tea in the afternoon.

Habt. infus. theæ ad libitum. Injic. enema emolliens.

18th.—Has had no motion for several days, and the enema came away without effect; state variable, sometimes very low and weak, at other times better; pulse fluctuating, both in frequency and strength; takes little food; some delirium; very dry black crust on the tongue; urine as before; excoriations separating well from a healthy surface.

Repet. enema emolliens statim, et omni trihorio si opus sit. Contr. diæta ut heri, et habt. elect. subborat. sodæ unc. ½ ad ling. detergend.

19th.—Has had three injections, which returned immediately, and taken electuary without effect; tongue very dark, but moister; some delirium; much tremor and subsultus tendinum; pulse scarcely perceptible.

Contr. medicamenta et habt. vin. domest. unc. 4. capt. unc. ½ pro re nata.

Hora 8va, P. M. had a copious black offensive motion; dozes much, with gesticulation.

20th.—Has had two thin offensive motions; takes nothing but wine; felt warm in the night, with much starting, but lies quiet; pulse scarcely perceptible.

Repet. vinum. Intermitt. cætera.

21st.—Takes little but wine; six thin offensive motions; excoriations worse, and increasing; breathing laborious; urine scanty; catheter was employed, but drew off very little urine.

Habt. vin. rub. Lusitan. unc. 4 vice vin. domest.

Gradually declined, and died at five P. M.

Dissection.

Upon making the usual transverse section of the cerebral hemisphere, the left lateral ventricle, which was first laid open, was found distended in every direction; the roof of it was more elevated than usual, and its outer wall was extruded considerably; it contained from one to two ounces of transparent, colourless, watery fluid. When this was removed, the fornix and its connections were in the following state: the foramen Monroianum was very distinct, raised into a circular aperture, of the calibre of a large goose-quill, through which, as a free communication, the fluid came from the right lateral ventricle. Behind and above the foramen Monroianum there was a large elliptical aperture; the longest diameter, about five or six lines, being antero-posterior, equally communicating with the right ventricle. The inferior part or supporting basis of this aperture, was formed at least by part of the fornix, the superior part of it by the corpus callosum. The cornua of the ventricles contained fluid of the same characters. The base of the brain and cerebellum presented nothing unusual, and its

substance, though fully examined by different sections, seemed to differ in no respect from the sound appearance.

On opening the abdomen, the alimentary canal appeared sound, and there were no traces of inflammation or disease. The liver was natural in every respect, and the gall-bladder was filled with healthy bile, and contained no calculi, nor was there any obstruction in any of the ducts. The urinary bladder was very much contracted, and there were many distinct bloody points, not connected by vessels, beneath the epidermis of the mucous coat.

In a case also of fever which I lately examined at Queensberry House for my friend Dr Welsh, there was fluid both beneath the arachnoid coat and in the ventricles; the corpus callosum was elevated from the fornix, and the interposed plate of celebral matter, the septum lucidum, had its fibres so stretched that they had a reticulated appearance. This, I think, may be safely admitted to be the more early state of the appearance which we saw in the case of B. to which, indeed, if the life of the latter patient had continued so long as to allow the morbific cause to continue its action, it would have ultimately gone; for in this reticulated state, a very slight mechanical force, the mere application of the finger of one of the gentlemen produced the breach of the reticula, and the retraction of the fibres so as to form the elliptical aperture, the more advanced state of the diseased septum which we witnessed in Burns. But as the first cause seems quite adequate to the effect, as it is more easy to see how it can produce the different appearances observed upon examination, as the two others seem more adventitious, and are less supported by the evidence which we are in the habit of suspecting in pathological reasonings, I believe we are borne out in saying, that the appearance alluded to is produced by mere mechanical distention.

DAVID CRAIGIE.

No. XVII.

Case of Acute Hepatitis; or Fever with affection of the Liver.

R. H. W. aged 41, Flax-dresser.

July 11, 1818.—Complains of a constant lancinating pain and sense of heat across the breast, and in the left

side, increased by coughing and full inspiration, and worst in the forenoon. He has a severe cough, chiefly in the morning, with scanty expectoration of a dark and saltish matter, and some dyspnœa, aggravated by the recumbent posture, but not preventing his lying on either side, though he lies best on the right. He complains also of a constant dull pain, and sense of heat in the forehead and ears, with giddiness, confusion of mind, dimness of sight, and occasional murmuring sounds, and a degree of deafness, increased by motion, coughing, and full inspiration, and relieved by the recumbent posture. He is likewise affected with general soreness and uneasiness, as if from contusion, pains in the left knee and right shoulder, which render him very restless, and are worst at night, and some tenderness and inflation of the abdomen.

Pulse 124, strong and full, but somewhat contracted, and nearly alike both in the erect and recumbent posture; respiration 27, short, and attended with moaning; heat 105, pungent. He feels generally hot, but is subject to severe rigors on drinking any thing cold, followed by intense heat, especially of the head and feet, and ultimately by profuse sweating, confined to the superior parts, apparently with some relief. He has no petechiæ; countenance flushed, and tinged yellow since his illness; eyes a little suffused; light and sound offensive; tongue whitish, but neither dry nor foul; a disagreeable coppery taste in the mouth, with intense thirst, and no appetite. He has frequent sour eructations, but no nausea, and vomited this morning a small quantity of a salt and acid liquor, of an orange colour. He has a similar discharge by stool, with some tormina, tenesmus, and a sense of soreness and heat at the anus. His urine is also of an orange colour, and passed in small quantities at a time, but without pain or difficulty. He is somewhat dejected and apprehensive; sleeps ill, with starting, and tendency to delirium; has a little tremor, and on attempting to stand upright is affected with increased headach and pain of breast, and great giddiness, faintness, and dimness of sight.

The complaint commenced three days ago, this being the fourth inclusive, with general debility, coldness of the extremities, and rigors, followed by heat, and soon after by

the other symptoms above described, all of which have progressively increased. Bilious diarrhœa, and a discharge of orange-coloured urine supervened yesterday evening, but the former has since abated.

The patient was dismissed from the navy, after thirteen years service, about three years ago, and has since been engaged in a manufactory at Kirkhill, as a flax-dresser, an employment which has subjected him to a constant cough, with copious thick expectoration; but since his present illness the cough has increased, and the expectoration diminished.

He can assign no cause for the complaint, and is not aware of having been exposed to contagion, unless in visiting some convalescents from fever at Kirkhill, the day before his attack. He has lately been travelling about, and was taken ill on his way to Liberton, from whence he was conveyed to the Infirmary this morning.

No remedies have been employed.

Statim fiat venesectio ad unc. 16. Abrad. capillities, et lavr. caput aqua frigida. Capt. mist. salin. ammon. unc. 2 omni tribrio, et injic. vespere enema emolliens. Bibat decoct. avenæ tepidum.

12th, 5th day.—Dyspnœa and cough relieved by bleeding; little pain except on full inspiration; blood has separated little serum, but one cup is very buffy; slept ill, with much dreaming; mind at present distinct; a great many small bilious motions, with scybala and heat of anus; urine of a wine yellow, cannot be retained long, but is passed without pain or difficulty; acute pain on pressing two circumscribed spots, one a little below the epigastrium, and the other at the margin of the ribs on the left side, with some tension; pulse 104, small, but not weak; heat 104, pungent, but he feels rather chilly, except in the head, which is affected with dull pain and giddiness; heat of head relieved by wet cloths; general rigors, easily brought on by cold drink, and exposure to air; countenance of a dusky yellow; eyes rather suffused; pupils alternately contract and dilate on exposure to light; tongue moist, and coated of a dull white; breath offensive; nauseous coppery taste; much thirst; no appetite; a little tremor and no deafness, but general uneasiness and weakness, particularly in the legs.

Statim fiat venesectio ad unc. 16. Capt. pil. comp. Eblan. 2 omni bihorio donec respond. alvus. Applic. hirud. 12. partibus dolentibus. ℞ Unguent. hyd. unc. 1. pulv. opii. scr. 1. M. Inungr. dr. 1. bis indies hypochondriis. Continr. lavat. frigid. capitis, et mist. salin. ammon.

Hora 8va.—About sixteen ounces of blood drawn at 3 P. M. which produced faintness and a little vomiting; blood buffy in two of the three cups; pain of breast and left side removed; a little remains in the epigastrium just below the cartilag. ensiform. only on pressure or very full inspiration; complains of great weakness and giddiness, but scarcely any headach; has also some pain in the left thigh and knee, and at the top of the right shoulder; pulse 116, of good strength; heat 105; skin ardent, yet he feels chilly, especially about the shoulders, and is impatient of exposure to the air; tongue coated white, with intense thirst; has taken six pills, which have produced a great number of thin bilious motions, containing a large quantity of scybala, the last only a greenish fluid.

Intermitt. pilulæ.

13th, 6th day.—Slept pretty well, but dreamt much; a general and very profuse sweat broke out yesterday evening, and continued through the night; several motions of green fluid without scybala; urine less yellow, and passed with some pain; all his pains easier; much giddiness, but little headach; vertigo on attempting to rise; occasional dry cough; pulse 90, natural; heat 98; skin cool, and not impatient of exposure; countenance less yellow; eyes a little turbid; tongue not so white; disagreeable but not coppery taste; less thirst; little appetite; leeches and ungt. hyd. not applied.

Applic. ungt. hyd. ut heri præscript. Intermitt. alia.

Hora 8va.—Pain of epigastrium continues on full inspiration, with dry cough; bowels rather confined.

Applic. hirud. 12. epigastrio, postea inungr. ungt. hyd. hypoch. Capt. pil. comp. Eblan. 2. omni bihorio ad catharsin.

14th, 7th day.—Nine leeches acted well; a great many scanty thin stools, containing mucus and blood, with tormina, tenesmus, soreness, and heat of anus; slept ill, with much wandering, but now feels much better; no pain of epigastrium on pressure or the fullest inspiration; pulse 82, nearly natural; heat 100, and feels himself comfortably

warm; tongue moist, and less white; much thirst; some appetite; urine of a light orange.

Contin. ungt. byd. Bibat. decoct. hord. ad lib. Habt. juscul. bovin. lib. 1. indies.

Hora 8va.—Dysentery continues, and he complains of great giddiness and tendency to wandering; otherwise well and free from pain. Capt. haust. ex. ol. ricini.

15th, 8th day.—Ol. ricini produced ten or eleven scanty bilious motions, with little blood, and no pain, followed by relief; slept well, but with wandering; is free from complaint except giddiness and trembling from debility on rising; yellowness almost gone; eyes sore and turbid; tongue much improved; good appetite; mouth a little affected; pulse 82, natural.

Utatur collyrio ex. vin. opii dr. ½ et aq. fontan. unc. 1.

Contin. medicamenta ut heri.

Hora 8va.—Capt. hor. som. haust. ex. ol. ricini.

16th, 9th day.—Slept very well, with little wandering; five thin light-yellow motions, with some straining; no complaint but weakness, especially of the right leg, with slight cramps; pulse 80, natural; tongue clean, and moist; some bad taste, and thirst; more appetite.

Intermittr. ungt. hydrarg. Habt. juscul. bovin. lb. 1½ indies, decoct. hord. ad libitum: collyrium anod. ut antea.

Hora 8va.—Had no motion; some pain of legs resembling cramp. Capt. elect. laxant. dr. 2.

17th.—Six loose greenish stools; slept well, without wandering; had a dull pain of forehead, with giddiness, this morning, but is now better; countenance still yellow; tongue quite clean; much thirst; good appetite; mouth a little affected; pulse 84. Let him have a little meat.

Hora 8va.—Bowels rather confined and uneasy.

Capt. cras mane bol. ex rhei gr. 30.

18th.—Had eleven lumpy and membranous stools through the night, without tormina, but much tenesmus and prolapsus ani; took the bolus very early this morning, which procured ease and sleep, and one natural motion; makes little complaint but of weakness.

Contin. diæta. Intermitt. medicam.

19th.—Last night took a bolus, with 30 grains of rhubarb; slept well without wandering; one motion from the

bolus, whitish, and not copious; still complains of weakness and giddiness; more affection of mouth; some pain of right shoulder this morning, now gone; face still yellowish; tongue clean; some thirst; good appetite; pulse 82, natural.

℞ Sulphat. magnes. unc. 1. Infus. sennæ unc. 8. Solve. Capt. unc. 2. omni hora ad catharsin.

20th.—Took six ounces of the medicine, which produced six copious motions, not thin, but dark green, and tinged with blood; much straining, but no prolapsus; slept pretty well; complains of increased weakness, and soreness of bowels and legs; other symptoms as before; pulse 72, weak.

Contin. diæta et capt. vin. rub. Lus. unc. 6 indies.

21st.—Slept extremely well; no motion since yesterday; complains only of cramp-like pain of right leg; some glandular enlargement on the left jaw, with salivation and a little papular eruption under the right ear; pulse 78, natural; face still yellow.

Capt. elect. laxant. dr. 1. omni bihorio, donec deject. alvus. Contin. vin. et diæta.

22d.—Slept well; six motions from the elect., dark-greenish and thin, without scybala or blood; weakness, especially of the right leg, and some giddiness, with occasional pain of right shoulder, and papular eruption from the ear to the right shoulder; less yellowness; pulse 68, weak; tongue clean; mouth less affected; some thirst; good appetite; considerable tremor.

Contin. diæta cum vino. Interm. medicamenta.

23d.—Slept well; one natural motion; complains only of giddiness of head, and numbness of legs; general health good; pulse 70, weak.

Rep. diæt. et vin. adhib. pediluv.

24th.—Slept well; some blood passed by stool; less numbness of legs and giddiness. Continue.

25th.—Slept well; transient pains in the top of the right shoulder; giddiness relieved; some aphthæ of the mouth; one thin dark-green motion; pulse 60; good appetite.

Intermitt. medicam. ℞ Acid. nitric. dr. 1. syrupi. unc. simp. aq. font. lb. 2. M. Bibat. indies.

Let him have an increased allowance of food.

26th.—Motions still dark greenish, but complains only

of weakness and numbness of right leg and foot; pulse 72, natural; yellowness of face disappearing.

31st.—Convalescent.

Let him be remitted to the ordinary physician.

No. XVIII.

Case of Acute Peritonitis; or Fever with affection of the Peritonæum.

G. R. æt. 20. Married.

July 11.—Complains of pain over the whole abdomen, particularly on the left side, which is much increased on full inspiration, and on pressure; also of much pain in the small of the back, and of slight headach. She lies easiest on the back and right side, but severe pain is brought on when she lies on the left side. Countenance somewhat dejected; tongue parched; much thirst; some nausea, and occasional vomiting; no dejection for two days; pulse 90, of natural strength; heat natural; surface not dry; occasional perspiration; resp. 28, somewhat difficult; gravida fuit per menses quatuor.

Has not been quite well for two or three weeks; two days ago had some flooding, but no abortion; since which time she has had much pain of the abdomen, but no discharge per vaginam.

Statim. ft. venesect. ad ℥xij. vel plus si opus sit, et
Capt. elect. lax. ʒi. omni horâ, ad plenam alv. solut.

12th.—Sixteen ounces of blood drawn with great relief; blood not buffy, but serum abundant; several motions from three drachms of electuary; slight pain of left hypochondrium, a little increased on pressure, and much by lying on left side, and from full inspiration; pulse 102, small; resp. 27, still difficult; tongue much parched; less thirst; slept well.

Applic. hirud. 12. part. dolent. Bibat. decoct. hord. ad libit

13.—Twelve leeches acted well with relief to pain of left side, but at night had much pain of chest and back, which went off this morning, and the pain of left side has returned, and is much increased by inspiration and pressure; cannot lie on left side; tongue rather white; little thirst; two motions; pulse 105; little cough.

Mittr. sanguis ad unc. 12. Applic. vesicator. lat. sinistro.

14th.—Much better after bleeding; blood buffy, and cupped; blister rose well; pain of left hypochondrium gone; breathes still rather difficultly, with some pain of scrob. cord.; slight nausea; tongue parched; much thirst; pulse 96, small; skin warm and moist; bowels open.

Capt. pil. hyd. bis indies. Contin. decoct. hord.

15th.—Feels better; back and legs sore; left side well; epigastrium pained by inspiration and pressure; pulse 112, not strong; heat increased; face flushed; bowels costive.

Rep. pil. hyd. et decoct. hordei. Capt. statim. infus. sennæ unc. 2. et rep. omni horâ ad catharsin.

16th.—Senna operated four times; gums rather sore; much better; no pain on the fullest inspiration, but still some pain of small of back and head; pulse 96; heat 100; feels hot; some perspiration; tongue more moist; thirst less.

Abscind. capillitium. Intermitt. medicamenta.

17th.—A good night, but had a transient attack of pain in her stomach and back yesterday evening; slight headach; otherwise convalescent.

18th.—Had a good night; much better; only a little pain at the lower part of the left hypochondrium.

Applic. catapl. part. dolent. Capt. mist. salin. unc. 2. omni trihorio.

19th.—Pain of left side and back continue; pulse 100; tongue dry; some thirst; bowels regular; countenance not flushed.

Applic. vesicator. lateri. Repet. mist. salin.

20th.—Could not take her saline mixture; blister rose well, and pain of side removed, but she has since been affected with much dysuria, and some ardor urinæ; small of back continues painful; bowels open.

Injicr. statim aq. tepid. lib. 1. Bibat. emuls. acaciæ ad libitum.

21st.—Dysuria somewhat relieved by the tepid injection, but more so by the emulsion which she drank, to the extent of lb. 4.; urine now copious and easy; slept well; flushing of face quite gone, but still complains of much pain in the small of her back; skin warm and moist; pulse natural; tongue clean; blister rose well, and relieved the pain of the part to which it was applied.

Intermit. med. Capt. h. s. haust. anod. ant.

Hora 8va.—Before taking her draught, whilst sleeping, she was seized with sobbing and dyspnœa, and could scarcely speak, though sensible. She pressed with both hands on the scrob. cord. as if it gave relief, and complained of great pain at the lower part of the sternum; resp. 44; after taking her draught discharged much flatus with great relief.

22.—Slept well, but complains of nausea and some pain at the lower part of the sternum; tongue dry; bad taste; much thirst; pulse 101; no motion.

Rept. haust. anod. antimon. Capt. statim bol. jalap. comp.

23.—Vomited her bolus, and has had no motion; pulse 90; tongue whitish, much thirst; bad taste; some pain of back, but no nisus abortivus.

Capt. infus. sennæ unc. 2 omni bihor. ad alvum leniter solvendam. Repet. haust. anod. simplex.

24th.—Had a bad night, but is now better; complains of pain of back and abdomen on pressure; four motions of natural appearance; face flushed; pulse 96, of moderate strength; tongue white and clammy, with bitter taste.

Interm. medicamenta. Habt. vin. domestic. unc. 6 indies.

25th.—Pain of head and abdomen trifling, but that of back continues. Thinks the wine affects her.

Interm. vinum. contin. diæta.

26th.—Is only weak; bowels rather slow.

Capt. infus. sennæ ad alvum laxandam.

27th.—Bowels open; four dark motions; functions natural.

Interm. medicamenta.

28.—No complaint but of pain of back; functions natural.

Applicr. emplast. picis dorso.

29th.—No complaint but weakness.

Let her have a little meat daily.

30th.—No complaint; bowels regular; getting stronger.

Contin. diæta.

31st.—Still very weak.

Let her be remitted to the ordinary physician.

No. XIX.

Case of Ophthalmia Membranarum, or Iritis, in a Girl, cured by the Application of Vinum Opii.

C. F. aged 15, Servant.

June 2, 1818.—Hora 8va.—Is affected with considerable redness of the tunica conjunctiva in both eyes, which water much, particularly on exposure to a strong light, but otherwise there is no intolerance of light, pain, or injury of vision.

Pulse 96, small, and weak in the erect posture; 72 in the recumbent; skin cool; tongue clean, but rather clammy; no thirst; appetite pretty good; bowels regular; catamenia deficient.

The complaint commenced ten days ago, with itchiness of the eyes, and a sensation as if grains of sand were lodged in them, which has since gone off. During the last four days the watering has increased. The patient has once taken purgative medicine, and used tepid milk and water locally, with little advantage.

She attributes the complaint to chill, from lying uncovered at night.

She was treated with blisters, purgatives, and collyrium of acetate of zinc. The inflammation of her eyes was diminishing, but again increased on the 15th.

15th.—Inflammation of eyes rather increased; bowels open.

Repet. sol. acet. zinc. et vespere applicr. oculis guttæ nonnullæ solut. opii. vinosæ.

16th.—Inflammation of eyes much diminished since the application of the vin. opii; pulse 72, weak. No other complaint.

Repet. applicatio vin. opii vespere, et collyrium.

17th.—The conjunctiva lining the eyelids is considerably inflamed and slightly granular; felt relief from the vin. opii.

Rep. vin. op. Intermit. sol. acet. zinc.

18th.—Inflammation of eyes diminishes, and she has less intolerance of light. No other complaint.

Cont. vin. op. pro collyr.

30th.—Continues to mend, but red vessels still pass along the conjunctiva to the edge of the cornea, and there is some turbidness of the pupils, which contract readily, and seem to have formed no adhesions.

Cont. vin. opii, et cras mane appl. cuique oculo guttæ ij. sol. ext. hyoscyam.

July 1st.—Pupils dilate uniformly with hyoscyamus, and inflammation continues to decrease.

Cont. vin. op.

On the 6th she was dismissed cured.

No. XX.

Case of Iritis in a Young Woman, cured by Mercurial Salivation.

R. W. æt. 20. Servant.

July 6, 1818.—Is affected with pain, a sensation of burning, and occasionally of grittiness in both eyes, but particularly in the right; occasionally, also, there is a sensation of pressure, as if the globe were too large for the socket. There is a very diffused vascularity seen through the conjunctiva, and the cornea is perfectly transparent. A few specks apparently of extravasated blood are to be seen on the iris of the right eye, and the fine vessels on it seem to be injected with red blood.

A layer of lymph appears on several parts of the iris of both eyes, but particularly round the pupil, where it is in greatest quantity. The iris, particularly in the right eye, is

more cloudy than in the healthy state. The pupil of the left eye is irregularly oblong; that of the right is nearly circular, but dilates with irregular edges.

She has a severe pain of the forehead, particularly over the right eye, which is aggravated in paroxysms, and more intolerable in the night; she also complains of sore throat, particularly on the left side, and of difficult deglutition. The tonsils are much swollen and uneven, without ulceration; and the uvula, from the swelling on each side, seems shorter than usual. One or two glands on the left side of the neck are a little enlarged; her tongue is rather white, and she has a bad taste, particularly in the morning; appetite good; bowels regular; catamenia defuere per hebdom. x. other functions natural.

Her sore throat commenced about three months ago, preceded by an eating sore of the upper lip; the sore was cured by the application of sulphate of copper, and acid gargles have been used to the throat, with little relief. About six weeks ago she began to use the blue pill, one night and morning, and continued them for two weeks, without any affection of mouth. In a few days after commencing the use of mercury, the left eye was first affected, and recovered in about a fortnight. It began again to be affected about five days ago, and has gradually grown worse since. The right eye was first observed to be inflamed about a fortnight ago, and has since grown worse.

Has used saturnine collyria, which gave pain, and excited a sensation of heat. Had three leeches applied to the right eye without relief, and she thinks the headach was increased by them.

Ap. hirud. xij. circa oculum dext. et temp. dext.

7th.—Leeches bled copiously, with much relief to the pain of forehead. Her eyes bear the light better than their appearance would indicate. The inflammation seems a little diminished.

Fiat arteriotomia ad unc. 16. Capiat bolum jalapæ.

Instill. oculis, bis indies, solut. hyoscyam. gutt. 2.

8th.—The medicines ordered yesterday were countermanded, and she was desired to take pills of 3 grs. of calomel, and ¼ gr. of opium, one every second hour.

She took four before nine last night, and resumed their use at six this morning, having taken eight in all.

The mercurial action seems to have commenced in her mouth; some nausea this morning, and vomited once; inflammation of eyes nearly the same; less pain of head and eyes, and bears the light better; throat the same; tongue white; no thirst; bowels regular; pulse natural.

Continr. pil. calomel. et opii.

9th.—Mercurial action has commenced; much nausea; some vomiting; no motion for two days; much inclination to sleep; thinks her throat better, but it appears the same; left eye more painful this morning, but easier at present; rather more inflamed, and pupil more dim; right eye less inflamed, and evidently better; no headach, and less intolerance of light.

Intermitt. medicamenta. Instillr. oculis solut. hyosciam. gutt. 2. vel 3. bis indies. Capt. elect. laxant. dr. 1. omni hora donec. dejecerit alvus.

10th.—Prescription of yesterday not carried into effect, and the mercurial formerly ordered was repeated during the day and night till ten this morning. Got an injection last night which operated thrice; mouth now much affected; teeth loose; copious salivation; no headach; eyes less painful; right eye much less inflamed, and the iris clearer; but the left nearly as yesterday; vision of right eye much better; that of the left rather better; feels no pain of throat; tonsils clean, and rather less swollen; tongue very white, and loaded; no thirst; pulse 116, full; temp. of skin high.

Intermitt. medicamenta. Capt. bol. jalap. comp. Instill. oculis ter indies gutt. aliquot solut. extract. hyoscyami.

11th.—Hyoscyamus applied twice, which produced some dilatation of both pupils; both irregular, but the left less than before; inflammation very much diminished; no pain, and sees clearer; salivation, &c. great; pulse 120; throat nearly the same; tongue very foul; bolus operated five times.

Rept. solut. hyoscyami. Interm. alia.

12th.—Pupils considerably dilated by the hyoscyamus; both considerably irregular; the inner margin of the right more distinct than that of the left, and colour of its iris almost natural; still some muddiness in the left eye; inflammation of conjunctiva greatly reduced, and no vessels pass over the lucid cornea; mouth very sore; salivation less; throat not painful; swelling and inflammation the same; tongue much loaded; one motion; pulse 120.

Capt. bol. jalap. comp. Repetr. solut. hyoscyami.

13th.—Complains only of soreness of mouth; salivation continues; throat the same; bowels regular; pulse 96; eyes much less inflamed; pupils dilate by the use of hyoscyamus; that of the left eye less irregular; that of the right as yesterday; sees quite well, and has no pain.

Contin. solut. hyoscyami.

14th.—Thinks the right eye dimmer, and it appears a little more inflamed; left eye still better; salivation continues; mouth very sore; throat the same.

Repet. instill. hyoscyami.

15th.—Both eyes much more free of inflammation; vision improved; pupils still rather irregular, and dilate from hyoscyamus, particularly the left; mouth continues sore with salivation; throat as before; no thirst; pulse 102; bowels regular.

Continue.

16th.—Salivation much less; mouth still very sore; throat no worse; eyes improving very much; left pupil more regular; some inflammation remaining in the left eye; bowels regular; pulse 90.

Continue.

17th.—Salivation less; mouth still sore; got the borax gargle last night; eyes very much better; throat better; tonsils less inflamed, and swollen; pulse 100, strong.

Contin. garg. boracis. Repet. hyoscyamus.

18th.—Eyes continue better; both pupils still irregular; left much more dilated than the right, upon which only there is any remains of inflammation; throat less painful.

Contin. garg. boracis, et instillat. solut. hyoscyami.

19th.—Eyes continue to improve, and the swelling of the throat is much better, without any loss of substance; tongue still very foul, and loaded.

Capt. cras mane infus. sennæ unc. 2. et repet. si opus sit.

20th.—Continues to recover, though the pupils are both irregular, and the colour and clearness of the right is not yet fully restored. Health good.

Continue.

22d.—Eyes still much better; left pupil almost regular.

Applier. vesicator. faucibus externis.

23d.—Blister has risen well.

24th.—Eyes almost well, but the right pupil is still small, and both slightly irregular; throat much better; inflammation slight, and swelling much decreased; mouth almost well.

Continue.

28th.—General health good; eyes continue to improve; throat better.

Continue.

29th.—Conjunctiva slightly suffused; left pupil rather irregular; vision natural; throat better.

Continue.

30th.—Eyes very slightly suffused with vestige of a ring round the iris; pupil nearly regular; vision natural; throat well; blister healing; health good; bowels regular.

Let her be dismissed, taking with her half an ounce of vin. opii.

No. XXI.

Case of Phthisis Pulmonalis, and Ascites, with Appearances on Dissection.

Alexander Wells, Weaver. æt. 19.

Nov. 25th 1817.—Complains of great debility; pain of breast under the sternum, aggravated by pressure; full inspiration, and some cough, with expectoration of a thick viscid matter. He also complains of pain of the whole abdomen, and particularly of the left hypochondrium, which is likewise increased by pressure and full inspiration. The whole abdomen is much swollen and tense, affording an evident sense of fluctuation. In the evening the swelling extends to the scrotum, and the œdema of the inferior extremities increases considerably. He has also frequent fluid, high coloured and fetid dejections, particularly in the night, accompanied with tenesmus, and at times mixed with blood.

Pulse 124; appetite good; urgent thirst, with occasional bad taste of mouth; urine in natural quantity, but at times passed with considerable pain and difficulty; respiration laborious, and increased by the horizontal posture, either on the back or right side, performed with a wheezing noise;

countenance rather anxious; tongue clean and moist at its apex, slightly furred at its base; surface of a moderate warmth; sleeps well.

Was first seized about twelve months ago with dyspnœa and cough, which, however, did not prevent him following his usual occupations. About seven weeks ago the œdema of his legs was first observed, and has progressively extended itself to the abdomen. Can assign no cause for his complaints.

Has used very frequently purgative medicines, which, during their operation, in general produced a partial abatement of the symptoms. From the effects reported to have been produced on the mouth, the purgatives seem to have been mercurial.

26th.—Swellings as before; has had three stools since admission; urine very scanty; pulse 106.

℞ Gambog. gr. v. Pulv. super. tart. ʒ ss. syr. simpl. q. s. ut fiat electuar. molle. Sumat cochlear. parvulum omni hora donec superven. catharsis incipiens cras mane. Let him have a bottle of gin punch daily.

27th.—Has had several small stools since he began the electuary this morning; urine still scanty; that of last night has deposited a considerable quantity of lateritious sediment; that of this morning limpid and amber-coloured; swellings and other symptoms as before; pulse 108; heat moderate.

Repr. elect. cras mane, et illin. crura omni vespere, per horæ quadrantis spatium ol. camphorat.

28th.—Had several watery stools from his electuary both yesterday and this morning, although he has to-day taken only one dose; urine still very scanty, and that of this morning is viscid and whitish coloured; swellings nearly as before.

Cont. medicament. et ℞ Extract. corticis cinchon. ʒij. Sulphat. ferri pur. ʒi. Syr. simp. q. s. ft. mass. divid. in pilul. granorum v. sumat duas omni man. et vesp.

29th.—The pills sit easily on his stomach; had four watery stools though he took no electuary; urine still scanty; swelling nearly as before; pulse 100; heat moderate.

Cont. pil. u. a. Int. Electuar. et ℞ mist. mucilagin. ʒvi. Tinct. Digitalis, ʒi. Sumat ʒss ter in die.

30th.—The mixture sits easily on his stomach, but his urine is still very scanty; swellings nearly as before: he has

still frequent loose stools, although he has used no electuary; pulse 98; heat moderate.

Cont. medicament. et ℞ Bacear. junip. ʒss.—Pulv. super. tart. potass. ʒss. Aq. Bullient. ℔ ij. digere per horas quatuor, dein cola et colaturae, adde spirit. junip. ℥ij. Bibat partitis vicibus in dies. Let the gin punch be omitted.

Dec. 2d.—Takes his mixture regularly, but very little of his infusion; his urine is still very scanty and whey-coloured, but the swellings are somewhat diminished, and his breathing and cough easier; pulse 94; heat moderate: has still frequent loose stools.

Cont. medicament. Let the gin punch be repeated.

10th.—Urine about ℥iij. turbid, with a white sediment; considerable cough; pain on pressure of the right hypochondrium; skin on the hip-bones becoming tender; belly very loose.

Int. medicament. et capt. tinct. scill. gtt. x. ex aq. cyatho bis indies. Inungetur abdomen omni vesp. ungt. hyd. dilutior. ʒss.

11th.—Urine lb. i. ss. with a copious sediment; stools less frequent; swelling of the belly increased, not very tense, and distinctly fluctuating; great œdema of the thighs; respiration very difficult; and expectoration, copious, apparently purulent: pulse 96; natural.

Rep. tinct. scillæ ter indies. Rep. ungt. hyd. et applic. partibus ulcerat. liminent. albumen ovi.

12th.—Is very much oppressed with difficult respiration, which he ascribes to the swelling; it is evidently increased, though not very tense; only two stools and his urine is scanty, and turbid; expectoration very copious; pulse 100; is urgent to be tapped.

Fiat paracentesis abdominis. Cont. Med.

13th.—Was tapped last night, and between three and four lbs. of a milky fluid were drawn off, which coagulated slightly with heat, and considerably with infusion of galls. He was greatly relieved by the operation, but his cough and expectoration continue, and he is prevented by pain from lying in a comfortable position; pulse 98, natural in strength; skin cool; urine above lb. i. turbid.

Rep. tinct. scill. et ungt. hyd. et capt. linct. opiat] cochlear parv. pro re nata.

14th.—Has passed a very bad night; expectoration se-

vere, and respiration difficult; pulse scarcely to be felt at the wrist; at the elbow 96; one stool; urine ℥v. very turbid.

Interm. ungt. hydrarg. Cont. alia. To have tea for breakfast.

15th.—Died this morning.

Dissection.

There were about ℥vi. of a limpid fluid in the cavity of the abdomen, but its viscera were of their natural appearance. About ℥i. ss. of a limpid fluid was found in the pericardium, but both pericardium and heart were of their natural appearance. A few ounces of fluid on each side of the chest; the lungs on the right side adhered at their anterior part by strong membranous adhesions, and by bands about one inch in length behind. On the left side of the chest, the pleura costalis and pulmonalis adhered closely to each other so firmly, that they could not be separated, and the lungs could only be removed by tearing out the pleura costalis from the ribs. When this was done, the lungs appeared reduced to one-fifth of their natural size, the pleura seemed converted into a sort of cartilaginous capsule. The substance of the right lung contained many tubercles, and its texture generally was indurated by effusion of serum into its cells. The substance of the left lung seemed to have entirely lost its cellular texture, was impermeable by air, and converted into a mass nearly of the consistence of liver. It was interspersed with tubercles in a state of suppuration, the other parts were of their natural grey hue.

A painting of the left lung, divided by a section through its whole length, was made by Mr John A. Schetky, Fellow of the Royal College of Surgeons, whose professional knowledge, combined with his consummate skill as an artist, enable him to represent morbid appearances with a degree of truth and effect that cannot be surpassed.

No. XXII.

Case of Phthisis Pulmonalis, with the appearances on Dissection.

R. C. Weaver, æt. 46.

Nov. 14th.—Complains of slight pain of head, vertigo, tinnitus aurium; rigors, after being long out of doors, not

succeeded by heat; pain of breast and left side of thorax, increased by full inspiration and cough, accompanied with expectoration of a yellowish and somewhat purulent matter, occasionally mixed with blood. He also complains of constant bad taste in his mouth; general languor and prostration of strength; great pain of abdomen, chiefly about the umbilicus, which is painful to the touch; frequent high coloured and fœtid dejections, recurring mostly during the night, and attended with severe tormina and tenesmus; sleeps ill; pulse 86; tongue moist, but somewhat foul; appetite tolerable; thirst very urgent; countenance rather anxious.

Complaints began eight months ago, with pain of breast, cough and expectoration, and prostration of strength, and arose from exposure to cold and wet. Has frequently used cathartic medicines and cough mixtures, with only temporary relief.

He got in succession an electuary of supertartrate of potass and sulphur, thebaic pills, powder of myrrh, and supertart. of potass, and infusion of catechu, with tincture of opium, without advantage.

Dec. 2d.—Cough and expectoration as before. Complains of great weakness, and has a desire for solid animal food; pulse 92; belly still loose.

Capt. infus. catechu, thebaic. ℥ss. post singulas dejectiones. Let him have a steak daily.

8th.—Had but two stools since last visit; cough and expectoration as before; has a strong craving for some cordial liquor; pulse 104.

Cont. omnia. To have half a bottle of porter daily.

December 11th.—Has had considerable diarrhœa, ascribed to taking porter; cough severe; incessant expectoration, copious and tinged with blood; pulse 108 and febrile.

Cont. med. Intermit the porter, and let him have rice and milk for supper.

12th.—Complains of sore throat from the severity of his expectoration.

Cont. med. et diæta, et inhalet vapores picis liquid. Let him have a pint of milk daily.

13th.—Diarrhœa very severe. Complained much of the vapours, which increased the cough, but not the expectoration, which amounts to ℥vi.

Cont. diæta et vapores, sed int. infus catechu, et capt. opii gr. i. bis indies.

14th.—Fumes of the tar caused no increase of cough, expectoration rather diminished, but the looseness is severe and distressing.

Cont. med. et capt. potion. carbonat. calcis ℥ij. post singul. dejection.

15th.—Diarrhœa much diminished; cough free and breathing less oppressed; pulse 92.

Cont. omnia.

16th.—The fumigation this morning excited very severe coughing, which induced acute pain at the lower part of the right side of the thorax. Three stools since yesterday; pulse 94.

Int. vapores picis. Cont. opium et mist. cretacea. Habt. etiam trochisc. glycirrh. cum opio No. x.

17th.—Less cough and expectoration, but severe diarrhœa has returned; pulse 94, natural.

Rep. potio cretacea et capt. opii gr. i, bis indies.

18th.—Diarrhœa severe and mixed with blood; pain on the right side from coughing, confined to the region of the liver.

Applic. vesicat. parti dolent. Contr. med. et inj. enema amyli cum tinct. opii gr. L.

19th.—Respiration difficult, and he cannot turn from the right side; purging continues; pulse 92.

Int. pilul. opii. Cont. mist. cret. et inj. enema anod. statim, et rep. vesp. si opus sit.

24th.—Is not able to retain fœces or urine; cough diminished; pulse 108; very small.

Cont. med. et ℞ Lichen Island. ℥iij. aq. font. lb. iv. Coque ad lbij. et exprime decoct. Vapora ad lb. i. et adde syr. simpl. ℥i. stet ut geletur, et utatur gelatina ad libit.

27th.—Died this morning.

Dissection.

On opening the thorax, considerable adhesions were found on both sides of the chest. The lungs externally were generally of a healthy colour, and on passing the hand over them their substance felt natural and spongy, but beset with small bodies of a bony hardness. On attempting to take out the right lung, the knife was necessary to divide the ad-

hesion at the upper and posterior part, and a quantity of pus escaped from a cavity capable of containing six ounces, of a very irregular shape, partially divided by irregular septa of a firm texture, and lined with a membrane, through which protruded the remains of a great many small bronchi, to the length of one-eighth or one-tenth of an inch. This vomica was situated in the upper part of the lung, and on further dissection, another was found also in the upper part nearly similar in shape and size, but still filled with pus. On dividing the substance of the right lung, it was found to contain a great many tubercles of different sizes, from that of a pea to that of a small hazelnut, and in various states of progress, some hard and cartilaginous, others soft, and some converted into thick pus. They seemed to be encysted or separated from the substance of the lung by a very distinct and firm membrane. The larger branches of the bronchi were not particularly examined, but the smaller ones divided in the dissection contained a muco-purulent matter. The intertubercular substance of the lungs was not indurated or apparently diseased, and in general the lower part of all the lobes, especially towards the edges, was, with the exception of the presence of tubercles, sound and fit for the purposes of respiration. The left lung contained no vomica, but its substance was similarly affected. The heart was in every respect sound The other cavities were not examined.

No. XXIII.

Effects of the Fumes of Tar, in a case of Phthisis.

T. M'G. Shoemaker, æt. 20.

Was admitted on the 14th November, labouring under symptoms of confirmed phthisis pulmonalis of twelve months standing; great debility; laborious respiration; pain of side, increased by full inspiration and pressure; severe cough, with purulent expectoration and hæmoptysis; sore throat; headach and vertigo; occasional diarrhœa; night sweats; great thirst; bad taste of mouth; pulse 120.

He had been treated with venesection, blistering, anodyne demulcents, hemlock, and cinchona, without any amelioration. On December 11th, the report states, that chiefly after taking food, and on being exposed to cold, he has violent fits of coughing, which bring on vomiting. On the 12th he was directed to inhale the tar vapour for an hour, four times a day.

Dec. 13th.—The tar vapour has been breathed twice. He was little affected by it at the time, but thinks his breast freer, and complains of dryness of his throat.

14th.—Finds the fumes of the tar agreeable; cough diminished; respiration much freer, but has pain in the left side.

Cont. vapores, et applic. vesicat. part. lat. dolent.

15th.—Breathing decidedly freer.

16th.—Continues to feel his breast much freer.

The use of the tar vapours was discontinued.

19th.—Respiration freer since he began the tar vapour, which he wishes to be renewed.

23d.—The fumigation was repeated last night and this morning, but it seemed to be carried to excess, and excited a good deal of coughing, with expectoration. It produces a sense of heat in the nostrils, with a very perceptible taste in the mouth; reports himself relieved by it, and had less perspiration during the night, but complains of rheumatic pains, and trembling of his limbs from weakness.

24th.—Reports himself much better, but the night-sweats have returned. Continue.

25th.—Breathing freer; sweatings continue; cough and expectoration increased. Continue.

Jan. 13th.—Since he came into hospital the pain of chest has been much relieved, and his respiration is much freer, but the night-sweats continue, and he has lost strength.

Recommended to return to his native place.

No. XXIV.

Case of Apoplexy, with the Appearances on Dissection.

J. T. æt. 45.

December 16th, Hora 8va, P. M.—Was brought into the hospital about eleven o'clock last night, in a state of complete insensibility, and, from the report of the persons who brought him, nothing more could be learned than that he had been lying for several hours in the same state in a wood-yard at Leith, without any attention being paid him until the workmen gave up working, when he was sent here by the policemen. Immediately on admission, he had his head shaved, and a purgative and domestic enema were given, both of which operated freely. This evening he was brought down to this ward, having some degree of stertorous breathing, and the pulse of the right wrist not to be felt; about forty ounces of blood were taken from the arm, which restored the pulse of the right wrist; and he could then attempt to answer questions, and put out his tongue when desired; yawned much as if sleepy, and swallowed liquids when offered him. His pupils, however, did not contract in the smallest degree when a candle was brought near them.

Applicr. vesicat. capiti. ℞ Submuriat. hydrarg. gr. vi. Pulv. jalap. ℈ss. M. Capt. pulv. hujusmodi ℥tia qq. horâ donec plene respond. alvus.

17th.—Was much relieved by the bleeding, and has some return of sensibility, and gave some assistance in putting on a shirt. His right side is quite paralytic, and the pulse is with difficulty felt at the wrist. His tongue, when protruded, is drawn to the left side, and his pupils are insensible to light. Pulse 84; moderately strong. Could not be made to take the whole of his powders; blister has not yet risen.

Capt. pulv. antimon. gr. iij. omni horâ ad emesin vel catharsin, et nisi alvus respond. injic. vesp. enema purgans.

18th.—Could not be made to swallow the powders, but the injection operated freely. Has taken neither food nor drink since he came in; and he seems worse; breathing more laborious; and the left arm is paralytic, as well as the right, but he moves both legs; pupil insensible to light; pulse 92, moderately full in the left arm, and not to be counted in the right.

Int. med. et injic. enema nutriens ex jusculo domest. ter quaterve indies.

19th.—Died last night.

Dissection.

The dura mater presented no unusual appearance on either surface. Betwixt the arachnoid membrane and the pia mater, there was only the slightest effusion of serous fluid. There was considerable congestion in the venous capillaries of the pia mater, and in the meshes of this membrane. On the lower and anterior part of the left anterior lobe of the brain proper, there was a slight ecchymosis, forming a spot about half an inch in diameter. The brown coating of most of the convolutions of the left hemisphere of the brain proper was in an ecchymosed state, particularly in the lower convolutions of the hemisphere. It was scarcely perceptible on those nearest the falx. The appearance was not such as could be produced by mere congestion of blood in the capillary veins of the brown substance, but was obviously of that kind which is occasioned by an escape of part of the blood from the fine vessels. The upper part of the left corpus striatum was wholly broken down, looking like a mixture of coagulated venous blood, and medullary matter; yet there was no effusion of blood into the ventricles. This disorganization extended outwards through the substance of the hemisphere, along the whole outer margin of the corpus striatum, until, at one small point, it came into contact with the bottoms of the convolutions overhanging the fossa Sylvii. The other parts of the brain proper were quite healthy. On cutting open the fourth ventricle from behind, a small coagulum of venous blood, of the size of a pea, was seen adhering to the lower parts of its anterior wall, extending from the median fissure a little to the left; and on dividing the annular protuberance in the median plane, this coagulum was discovered to be part of a small mass of clotted blood which had been effused into the substance of the protuberance, and some streaks of blood extended forwards in a horizontal direction, evidently in the course of the venous vessels, which penetrate from the anterior to the posterior surface of this

body in the median plane and its vicinity. In point of breadth, these bands of effused blood were about an eighth of an inch on the left side, and a sixteenth on the right. The other parts of the cerebellum were quite healthy.*

JOHN GORDON, M. D.

No. XXV.

Case of Apoplexy.

J. D. æt. 22.

Dec. 3d, 1817.—Has total loss of power of the left arm, and left lower extremity, with an occasional feeling of pain and numbness in both. When motion is performmed at the wrist, she is affected with severe pain at the shoulder joint. Complains also of occasional and very severe headach; vertigo with tinnitus aurium, and dimness of sight; pulse 96, and weak; belly rather bound. Catamen. have not appeared for six weeks; for the last two days she has been affected with suppression of urine; appetite bad; sleeps ill.

The affection of her arm and leg first commenced about seven weeks ago, and has gradually increased. Attributes her complaint to over fatigue and cold.

Has used some remedies, the nature of which she does not know.

4th.—Abradat. capillit. et applicet vesicat. capiti. Bibat inf. lini ad libit. Abstrahatur urina cathetere si opus sit, et injr. enema domestic. vesp. nisi prius respond. alvus.

5th.—The stupor continuing to increase, yesterday afternoon, twenty ounces of blood were drawn from the jugular vein. Blister discharged very little. Was unable to swallow the purgative powders which were directed, and purgative injections were not retained. The state of torpor continues the same as before, and the respiration is often very laborious, and with stertor. The pulse, formerly slow and full, is now 118, and very small.

* An excellent painting of this section was executed for Dr Gordon by Mr Schetky.

Applicent. sinapis. pedibus, et iterum applicetur vesicat. capiti.

6th.—Died last night about six o'clock.

Dissection.

7th.—A considerable portion of the brain proper was found disorganized. In place of the natural medullary or nervous matter, there was a substance of the appearance of custard, in which not the slightest vestige of the healthy structure could be recognized. To the eye it looked like broken down medulla, and a little serum alternately mixed, and was of a much looser texture than healthy nervous matter, yet it possessed very considerable toughness, and gave the idea, from its tenacity, of its being in part composed of fine cellular substance; no blood-vessels were apparent in it. This disorganization was similar to what Dr Gordon has repeatedly observed in the brain of persons who had suffered an attack of apoplexy or palsy four or five months before death.

This disorganization extended from before backwards, at its greatest length, from a point corresponding to the exterior extremity of the corpus striatum, to one corresponding to the posterior extremity of the corpus callosum. The base did not extend further downwards than a plane passing horizontally through the hemisphere, on a level with the upper surface of the thalamus opticus internally, or on the side next the ventricle. It followed nearly the course of the border of that part of the corpus striatum which projects into the ventricle, and was separated from that cavity by a layer of white nervous matter, not more than one-eighth of an inch thick. Opposite to the middle of the corpus callosum it extended into that body for about one-eighth of an inch, towards the median plane, about half an inch from before backwards, and had penetrated through so much of its thickness, that a stratum of the natural substance of this body, more than one-twentieth of an inch thick, intervened between the disease and the cavity of the ventricle, and a layer, one-tenth of an inch thick, between it and the upper surface of the corpus callosum. Above the level of this body it had destroyed about one-third of the base of two or three convolutions which project from the inner or median surface of the hemisphere. In the direc-

tion outwards, the disease had extended as far as the very apices of two or three of those convolutions which overhang the fissura Sylvii, destroying almost all the internal white substance of these convolutions, only a thin layer of one-twentieth of an inch being left of it, on which the brown matter rested. Between the fissura Sylvii, and the inferior inner margin of the hemisphere, the disorganization had made similar encroachments. It had encroached more or less on the basis of all the convolutions, and in some had penetrated to their apices.

From this dissection it appears, that, with the exception of the small part of the corpus callosum which was affected, the destruction was confined to that mass of white nervous matter connected below with the expansion of the crus cerebri, and the outer wall of the capsule, on which the bases of the inner, upper, and outer convolutions of the middle hemisphere rest. There was no apparent disease in any other part of the substance, either of the brain proper or cerebellum. It was every where rather firmer than it generally is so many hours after death. There was an enlargement of the posterior cornu of the left ventricle, and where it communicates with the inferior cornu, but not the least appearance of increase in the anterior part of this ventricle, nor in any portion of the other ventricles. In this enlarged cornu there was found about one ounce of a clear and perfectly colourless fluid. The membranes of the brain were perfectly healthy; not the least effusion between the arachnoid membrane and pia mater, either above or at the basis of the brain. Upon lifting up the dura mater from the surface of each hemisphere, the surface of the arachnoid membrane presented the appearance of *dryness*, which Dr Gordon has often observed to indicate effusion into the ventricles, or disease of the substance of the cerebrum.

JOHN GORDON, M. D.

No. XXVI.

Case of Dyspnœa and Epilepsy, treated with Galvanism.

J. D. aged 40, of a strong constitution, but irritable habit, Sempstress in a Silk Manufactory.

June 2d 1818, Hora 8va.—Is affected with severe cough, dyspnœa, expectoration, and dull pain in the lower part of the chest, on the left side. In the erect posture, she can take a full inspiration with little uneasiness, but all her complaints are aggravated by the recumbent posture, which immediately induces wheezing. She consequently sleeps ill, and is often obliged to sit up the greater part of the night to procure breath; at which time she has long and violent fits of coughing, which agitate her whole frame, and occasion flying pains of the chest. She spits much, and always with difficulty, but ultimately with relief. The sputa are thin and mucous during the day, but became more viscid after sleep. In the morning her mouth is frequently filled with dark blood.

Pulse 92, small and not weak; heat 101; perspiration naturally free; tongue clean; little thirst or appetite; bowels open; urine natural; catamenia regular. She feels much weakened, and has slight swelling of the feet.

The patient has been subject, for the last thirteen years, to epileptic fits, originally occasioned by grief and distress, and had two within the last week. She ascribes to them a constant tremor in the right leg, and occasionally in the right arm also, with which she has been affected for several years past.

Her pectoral complaints first commenced about two years ago, at which time she was under the care of Dr Spens in the Infirmary, and received great relief.

The present attack began six weeks ago, and has been gradually getting worse.

She attributes it to cold, having been much exposed to wet feet during the winter.

She got purgatives, and first squills, and then digitalis, with relief to her dyspnœa. She had a fit of epilepsy during the night, be-

tween the 6th and 7th of June; on the 12th she had feelings as if a fit were coming on, and it actually took place in the night between the 13th and 14th. On the 20th the report states that she has had a singular sensation, resembling a fluttering at the heart, which always precedes, though it is not always followed, by one of her fits. She was now ordered to take a pill of ammoniaret of copper three times a day, and they were continued as long as she remained. During the night of the 20th her fit did not come on, although it had returned twice before, at an interval of exactly seven days, and she had no fit afterwards while in the ward. One imperfect trial of galvanism was made on the 22d with a bad apparatus, and without any effect. On the 30th it was used efficiently, as appears by the following reports:

July 1st.—Galvan. applied twice since last visit, and she thinks her breathing relieved after it; tolerable night, but rather more cough and defluxion this morning, with blood. Pills operated five times, other complaints as before

Intermit. pil aloes. Cont. alia.

2d.—Galvanism induced coughing last night, relieved by some expectoration; had a good night, and the morning, fit of dyspnœa is much diminished; some headach.

Intermit. pil ammon. cupri. Cont. galvanismus.

3d.—Bowels rather costive; headach towards morning; respiration improves.

Cont. galv. et capt. pil. colocynth. ℈ss. et si opus sit rep. dosis.

4th.—More sensible to the effects of the galvanism; dyspnœa nearly gone, but still some cough and bloody expectoration as usual. Took four pills, which operated several times; has had headach for several mornings.

Intermit. pil. colocynth. Cont. galvanism. Capt. infus. valerian. unc. 2 omni bihorio.

5th.—Morning headachs continue, but her functions are regular, and other complaints decreasing.

Cont. infus. val. sylv. et galvan.

6th.—Had a bad night from headach; disagreeable dreams and startings; dyspnœa still better; morning cough as before, but more blood in the sputum.

Intermit. med. et ℞ Infus. sen. ℥iv. sulph. mag. ℥ss. solve. Capt. ℥ij. et rep. dos. si opus sit.

7th.—Took half of her purgative mixture, which operated severely, with tormina. At night she got ℥j. of pepermint water, with 20 drops of laudanum, which gave her much relief; this morning less headach; cough severe, but less blood in the sputum.

Rep. galvanism, et capt. mist. scil. ℥ij. omni trihorio.

8th.—Slight headach, and ascribes much relief to the squill mixture; otherwise better.—Cont.

On the 15th she was dismissed much relieved.

No. XXVII.

Case of fatal Diarrhœa, with Appearances on Dissection.

A. F. Labourer, æt. 60.

10th November.—Complains of great prostration of strength; slight rigors, not succeeded by heat; pain of breast and abdomen, chiefly about the umbilicus, not aggravated by pressure; frequent yellow, and generally fluid dejections, more particularly during the night; severe tormina and tenesmus before each evacuation, and these always recurring on taking either food or drink. Pulse natural; surface cool; tongue moist, but slightly furred; appetite and thirst also natural; but is deterred from taking either food or drink, from the fear of inducing the diarrhœa.

Was attacked three weeks ago with the diarrhœa, and a sense of coldness of the inferior extremities, occasioned, he reports, by exposure to cold and wet. Has used no remedies but one dose of castor oil.

This patient, after having his bowels emptied by an ounce of phosphate of soda, was treated with infusion of catechu and opium, prepared in the neighbourhood of Edinburgh, by Mr Young, surgeon, but without any material alleviation of his complaints, and he died on the 4th of December.

Dissection.

The peritoneal covering of the abdomen, particularly below the umbilicus, was thickened, opaque, and mottled with round red spots. The serous membrane covering the small intestines, and still more that covering the great intestines,

had undergone similar changes, in particular about the ileum and the descending part of the colon; and flakes of coagulated matter could easily be scraped off these intestines. The serous membrane forming the falciform ligament of the liver was thick and opaque, and thickly spotted with the red spots; but the serous membrane covering the liver itself appeared healthy, as also that of the stomach, spleen, and urinary bladder. Upon cutting into the ileum, no morbid appearances were observed, but upon cutting into the descending arch of the colon and rectum, they were found much thickened; and, at several places, the internal membrane of the intestines was partially, and at others completely removed, marking the intestines as small-pox does the skin; in the cavity of the abdomen, about six lb. of a light-yellow serum, with flakes of a similar colour.

No. XXVIII.

Case of Diabetes, with Appearances on Dissection.

E. C. æt. 42.

November 20, 1817.—Is much emaciated, and complains of great general debility. The whole abdomen is much swollen and tense, and affords a sense of fluctuation. Has a copious flow of urine, reported to be of a sweet taste, and of the colour of whey, which passes off involuntarily when she gets warm in bed, but she easily retains it through the day when she is out of bed. Pulse 87; tongue white; bowels reported regular; urgent thirst, with voracious appetite; also complains of dimness of sight; and, upon inspection, the crystalline lens of both eyes is of an opaque white colour; was first attacked with the above complaints about two years ago, since which time they have gradually increased. Was admitted into the hospital about four weeks since, and is much the same as she was then, except the involuntary passage of her urine through the night, which has commenced since she came in. Has taken an anodyne draught ever since she was admitted, with some purgative powders, which she left off about eight days ago.

She was put upon animal diet, and got purgatives, tinct. cantharidis, and a variety of drinks, with mercurial frictions upon the abdomen, without any benefit. The quantity of her urine continued about lb. xiv., while that of her ingesta was about lb. x. daily, proving a very considerable absorption from the atmosphere, either by the lungs or skin, or both. She first complained of strangury on December 1st, and about the middle of that month she lost her appetite, which had been previously voracious. About the same time she began to complain of excruciating pain in the back, which continued with little intermission to the last. The more interesting changes are noticed in the following reports.

Dec. 1.—Urine fifteen lbs.; drink ten lbs.; swelling as before; complains of considerable uneasiness from a strangurious affection; frequent loose stools; pulse 88; heat natural.

12th.—Ingesta eleven lbs.; urine fifteen lbs., as before, besides a quantity passed in bed; tumour of the abdomen increasing in size, circumscribed, extending from about an inch above the umbilicus, to the left ilium, and as low as the pubes; the upper part of the abdomen natural in appearance; body in general emaciated, and she complains of increasing weakness for two or three days past; her appetite has decreased much, but thirst still excessive; had four stools from a rhubarb bolus.

13th.—Ingesta about ten lbs.; urine fourteen lbs. of a very pale whey colour, and did not coagulate with heat until it was considerably evaporated; with the infus. of galls it formed a slight coagulum, after standing some time; swelling increased an inch since yesterday; pulse 84, full; complains of great heart-sickness.

Contr. ung. hydr. Let her have a pint of porter daily, and for drink ten lbs. of water, very slightly acidulated with sulph. acid.

14th.—The tumour is not at all translucent, although, on the upper part, its parietes are very thin, and fluctuation is distinctly felt through every part of it; is very painful, even when not touched, especially at both extremities; sickness very severe; appetite much reduced; urine fourteen lbs. as before, injesta eight lbs.; relishes her acid drink; pulse 90, natural.

Contr. med. et cap. hora somni pil. Theb. gr. x.

27th.—Ingesta nine lbs.; urine not measured, but when she desires to make it, the pain is excruciating, until she

gets relief from sitting over the steam of water; medicine operated well.

Int. omnia, et capt. aq. laurocerasi gtt. xv. ex aq. cyatho, ter indies.

28th.—No apparent effect from the drops; ingesta ten lbs.; urine not measured; pain still continues.

Cont. aq. lauroceras. sed capt. gtt. xv. quatuor in dies.

Applicet emplast. opiatum parti dolenti; to have four ounces of wine daily.

30th.—No better; pulse 100, of good strength.

Intr. aq. laurocer. et haustus. Fiat venesectio ad ℥viii.

Capt. hor. somn. opii gr. iii. et abstrahatur urina ope catheter.

31st.—Blood drawn covered with a tough buffy coat, with a little separation of serum in the first cup; no relief from the bleeding; pulse 106, moderate strength; bowels costive; catheter not employed.

Rep. haust. ex ol. ricini. Contr. opium.

Jan. 1.—Medicine operated, but complains of inability to swallow, and the fauces have been ulcerated, for four or five days; tumour less than it has been, and gives a distinct sense of fluctuation; pulse 104.

Rep. haust. ex ol. ricini, et ℞ Subboratis sodæ, ℥i. tere in pulverem et misce cum mellis ℥i. ut fiat linct.

Rep. opium.

14th.—Complains greatly of weakness; urine is much reduced in quantity; thirst and appetite gone; tongue clean; no particular pain; skin on the trochanters tender; pulse 100; skin moist.

Contr. med. et curentur partes affectæ liniment. album. ovi.

15th.—As yesterday. Cont. med.

16th.—Sunk this morning about seven o'clock. Just before death urine began to drop from her, and, upon putting the hand on the tumour, it flowed more freely, till in all about ten lbs. discharged, and the tumour became quite flaccid. This urine was higher coloured, and more urinous in its smell than any lately passed.

Dissection.

The left kidney was about a fifth larger than usual in a full grown female, but of a natural form; the right was less enlarged, and of its proper figure also. The internal

structure of both was quite natural; the distinction between the light and dark coloured parts being well marked in both, with a slight congestion in the capillary veins in the line between the two. The calyces in each were enlarged, in proportion to the increase in general size; and both the ureters were about one fourth of an inch in diameter. The remarkable tumour perceptible above the pubes during life, was found to depend on an enlargement of the bladder. This viscus was of sufficient size to contain 5 lbs. of urine, and about that quantity was found in it after death. It had its natural form; and its parietes were rather thinner than usual; although the muscular fasciculi were very well marked. Its inner coat presented a perfectly healthy appearance, and the ureters entered below, in the usual manner. The peritonæum was reflected upwards from its anterior part an inch and a half higher up above the pubes than in a healthy person. It was covered before only by a thin expansion of tendinous substance, like the widened-out linea alba, the muscular part of the recti muscles, &c. having disappeared, and their place being occupied by this tendon. Externally to this lay the common integuments, which were also a good deal thinned.

The stomach and intestines were in a healthy state. The adipose substance between the folds of the peritonæum, in the mesentery, &c. behind it in the region of the kidneys, and in the substance of the omentum, had entirely disappeared; there remaining only a small quantity of cellular substance.

The mesenteric glands were more distinct than usual, and the smaller ones enlarged a little; but they were of a natural colour and consistence.

The sympathetic nerve, on both sides, from its entrance through the diaphragm into the cavity of the abdomen to its descent into the pelvis, was enlarged to about three or four times its usual size; and there was an increase in the size of the splanchnic nerve, on both sides, to the same extent, from about two inches within the cavity of the chest, until it perforated the diaphragm.

The other viscera within the cavity of the abdomen, and the contents of the thorax, were natural.

J. Gordon, M. D.

No. XXIX.

Case of Diabetes complicated with Phthisis Pulmonalis.

J. B. Labourer, æt. 26.

May 8th, 1818.—Complains of great debility and pain extending from the left hypochondrium to the scapula of the same side, which is increased on full inspiration, and has continued for about a week; is much emaciated. Pulse 105, of good strength; heat natural; appetite unusually great; tongue clean; great thirst; skin dry; urine voided in the quantity of from twelve to fourteen pounds in the day. Bowels costive; sleeps badly, and dreams much; lies easiest on his back, and feels a pain when lying on either side, particularly the left.

Has been affected more than three years with weakness, great thirst, and an increased evacuation of urine. About nine months ago was affected with pain of chest, cough, and expectoration; and about six weeks ago had a pain extending from the right hypochondrium to the right scapula, which continued about ten days.

Was lately under the care of Dr Spens, when he took aloetic pills, and was put on full diet, which, however, is not sufficient to satisfy his appetite.

℞ Mas. pil. aloet. gr. vj. gambog. gr. ij. M. fiant pil. duæ h. s. sumend.

He got purgatives and increased diet. On the 11th of May a difference was observed between the urine made first in the morning and that during the day; the former being of a full yellow colour, and having its natural urinous state; the latter very pale and sweetish. The total quantity was pretty uniformly lb. x. His pectoral complaints increased. On the 19th of June he was put upon animal diet. On the 22d 3x. of blood were taken from his arm, which coagulated very firmly, with whey-coloured serum of a saline taste. On the 23d an angry phlegmon was observed on his right under-jaw, which was connected with the bone. He had hæmoptysis on the 28th, which continued to return, and his sputum became heavy, membranous, and globular. The quantity of his urine continued about ten or eleven pounds; that made in the morning generally had

a wine-yellow colour, was bitter and salt, of sp. gr. 1042; and that of the evening was pale, sweet, and sp. gr. 1034. When the ward was shut he was evidently sinking under the combined effects of diabetes and phthisis pulmonalis.

No. XXX.

Case of Diabetes and Incipient Phthisis, with the Appearances on Dissection.

L. M'L. a girl, aged 18.

March 30th.—Is affected with excessive thirst and hunger; urine pale, pellucid, and sweet, sp. gr. 1031; greatly increased in quantity; abdomen tumid; excessive emaciation; great debility; occasional pain of head; vision somewhat dull. Pulse 98, very weak; tongue clean; bowels costive. Catamenia per annum defecere. No perspiration, and skin has a harsh feel.

Disease commenced about a year ago, with anorexia; pain of stomach, and occasional vomiting of a fluid like water; and shortly after an increase of urine, great thirst, and desire of food were observed.

Attributes her complaint to cold, and has used no remedies.

She was treated with animal diet, cinchona, uva ursi, lime-water, and afterwards Port wine. Her ingesta were about ten pounds daily, and her urine eleven pounds. On the 2d of April a large phlegmon appeared on her arm, which was opened on the 9th, and discharged much bloody purulent matter. On the 14th the vision of her left eye was reported to be lost by a catarrh after admission.

April 22d.—Left the hospital for her mother's house, where as much care and attention were paid as circumstances would permit. No journal could be kept, although visits were paid almost daily.

May.—For a few days the patient became very low, and appeared much exhausted. Feet œdematous, and generally cold in addition to the former symptoms, so that death was hourly looked for. About the 28th, she again recruited a little. A tumour with some fluctuation was observed about the 29th in the right iliac region, also a small

tumour of the same kind on the side of the anterior part of the neck, just above the clavicle. The patient seemed more irritable than she had lately been, with occasional heats. Pulse quicker, but weak; the tumour of the neck burst, and discharged a good deal of pus. That of the right ilium was punctured, and discharged, until death, much pus and ichor. Lower extremities greatly œdematous, and most generally cold, though occasionally one or both very hot and inflamed. Great dyspnœa, with cough as if from effusion in the thorax. The vision of *both* eyes almost completely gone. Surface, in general, cold and dry; at times fits of heat, sometimes local, but no perspiration at any time; pulse 90, 110, 115, and 120; urine as before in quantity and appearance, until a day or two before death, when it was somewhat turbid, which was afterwards known, from dissection, to be purulent It was not accurately measured, nor were the ingesta. Thirst constant; tongue moist and livid; an occasional craving for food, (animal, such as beef-steak, preferred,) and wine, or porter, continued to the last; no nausea nor sickness till within an hour of death; bowels in general pretty regular, occasionally loose, but no purging; in general little sleep; no delirium; much pain and restlessness; great dyspnœa; expectoration of viscid mucus, with a little pus occasionally.

She got from the Dispensary, Supert. potass.—acid. sulph. dilut—tinct. opii ammon.—tinct. opii,—liniment. opii ammon.

Wine and porter were provided.

Died 23d May.

Dissection.

24th May 1818.—In the thorax were observed slight adhesions between the pleuræ; a very small quantity of serum in each cavity; a small abscess between the pleura and intercostal muscles of the third and fourth ribs of the left side; a number of very small vomicæ in the lungs, and about ℥iv. of fluid in the pericardium. In the abdomen, an increased vascularity about the pyloric extremity of the stomach: the mesenteric glands were generally enlarged, and in some of them was seen a gritty chalky-like substance; the kidneys were somewhat more enlarged and harder than usual, and pus was seen exuding from the

papillæ when laid open. There was a very large abscess which extended from the spine to the anterior part of the right iliac region, and occupied the entire space between the ilium and lowest rib; it was in contact with the capsule of the right kidney, but *had no connection whatever with the internal part of that organ.* Pus was observed in the course of the ureter and in the bladder. In the other viscera nothing morbid was observed. The liver was *remarkably healthy.* In one eye the crystalline lens was absorbed, and a substance resembling a grain or two of sand was seen on the anterior part of the vitreous humour; the cornea was opaque and hard. The other eye was given to Dr Gordon, who reports, that the crystalline lens was found pretty entire, but there appeared some adhesions of the iris. The extent of emaciation was extreme throughout, the fat about the omentum and heart being nearly gone, the omentum having the appearance of a tissue of vessels; the muscles were generally pallid, and the cellular texture was œdematous. It is to be regretted that the suspicion and impatience of the friends would not allow more time and opportunity to examine some of the blood-vessels and nerves.

No. XXXI.

Ulcus Palati after Poisoning by Nitre.

C. A. æt. 23.

Jan. 1, 1818.—Situated in the middle of the palatum molle there is a pretty large irregular hole, and of considerable depth, destroyed by ulceration; the uvula likewise, and a considerable part of the velum palati seem to be eradicated by the same disease. Complains of no pain, but in the morning when she awakes the parts feel dry, and uneasy until they are completely moistened with saliva. She experiences no inconvenience in speaking or eating, but has difficulty in swallowing fluids, which pass up into the nostrils with a disagreeable sensation, and considerable pain, but there is little discharge from the ulcerated parts; pulse

80, of natural strength; tongue whitish; bowels regular; catamenia regular; appetite good: little thirst.

She states that nine months ago she took about two ounces of nitre, given to her by mistake for Glauber's salt, which, in about ten minutes after they were swallowed, caused a great swelling of the abdomen, with severe burning pain at the epigastrium, vertigo, and pain of head, with pains all over the body; fifteen minutes afterwards, she had severe nausea, and vomiting of a copious bloody fluid, which, in passing through the fauces, caused considerable pain and excoriation. Next day she had severe pain all over the abdomen and thorax, which could not bear the slightest pressure; loss of appetite, languor, and general debility.

The soreness of the throat continued for nearly a month afterwards, and it has ever since been very tender. About three months ago she had a slight itchiness at a small point in the middle of the palatum molle, now occupied by a large irregular hole, which gradually spread backwards, and destroyed the uvula, and the greater part of the velum palati. Has used no other remedies but lime juice and water, with which she gargles her throat.

This woman soon got well by the use of astringent gargles.

No. XXXII.

Case of Change of Colour from Brown to White, in a Native of Bengal.

J. W. æt. 56.

May 8, 1818.—A native of Bengal, his parents Mahometans, and both dark; left India about the age of ten or eleven, and has since resided in Edinburgh, chiefly as a servant, but since the last nine years as a mason's labourer, and pursuing other casual employment. During this period he has gradually lost his native dark colour, and become white, which he attributes partly to the climate, and partly to the action of lime and mortar, in his occupation as a mason, which occasioned much itching of the skin. The change

commenced in the hands and head, the hair from being black and lank, has become light grey, and somewhat curled. The parts which last retained their colour, were the breast and back of the neck. The only remains of his original complexion at present are some irregular patches of a dull purplish colour covering the upper parts of the cheeks, and prominences of the ears, and a lighter patch at the tip of the nose. During the change of his colour, no sensible alteration was observed in his health. *

The complaints for which he was admitted were so slight that it is unnecessary to state them.

* See a similar case in a negro in the Duke De La Rochefoucault Liancourt's Travels through the United States, Vol. III, p. 263.

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PAMPHLETS

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