CRITICAL RETROSPECT
OF
MEDICAL AND PHYSICAL LITERATURE.

Genius der Gesundheit und des Lebens; i. e. Genius of Health and Life, a Pocket Book for Physicians and others, for the Year 1801, by Dr. C. J. Kilian. Leipzig, Wiegel, price 16 grochen, or about 2s. 6d.

This publication is intended for the use of the public at large, in order to divulge better and more enlightened notions on objects of medicine, by which means the author, who occupies an honourable place amongst the medical writers of Germany, thinks to banish several prejudices that are still reigning amongst the people, with respect to medical assistance. For this purpose he here gives: 1. Newest theory of general medicine, theoretical as well as practical. We doubt very much whether this Memoir will answer the purpose, as it is too philosophically written to be sufficiently understood by every reader; and it seems to us not at all proper to propose an entire system of medicine in a popular work, as by being frequently misunderstood, it is apt to convey wrong and imperfect ideas to the reader. 2. Fragments of a domestic materia medica. It is the design of the author to give a survey of all the domestic remedies, which will be yearly continued. This is indeed a laudable undertaking, as that part of medicine has been hitherto very little attended to. The author treats here of milk and eggs. 3. Some dietetic observations and precautions for smokers. No person will wonder at finding such an article, who knows that the custom of smoking tobacco is still prevalent in Germany amongst the higher classes of people; rules, therefore, concerning that habit, are not foreign to this publication, and they will be found entertaining, as the author gives them with much wit and humour. 4. Two medical observations. 1. On the effects of bathing in rivers, which, in some cafes, is very prejudicial to health. 2. On the use of bishop, (a liquor composed of red wine, spices, sugar, &c. like negus) in a case of hemoptoe.

A Treatise on the Cow-pox, fully explaining its Causes, Symptoms, Inoculation, Treatment relative to other Eruptions on the Skin of Men and Beasts, according to Observations made by the Author. By Frederick Benjamin Osiander, M. D. Professor of Medicine and Midwifery in Gottingen. With coloured copperplates. Gottingen, 1801, octavo, pp. 238.

The author is the first physician who inoculated with the Cow-pox successfully in Gottingen, and earnestly recommended it by powerful arguments in an express publication. The copper plates accompanying it, which are well engraved and carefully coloured, reprie...
Mr. Pulley, on Animal Impregnation:

represent the hand of a milkmaid having a Cow-pock, and another plate in folio, representing the course of the daily appearance of the Cow-pox, according to Prof. Osiander's method of inoculating with a blister.

The drawing is done from Nature by Dr. Osiander himself, and the engraving by Basemann, a good painter and engraver in Gottingen. It is a very exact delineation of the Cow-pox pustule on the place of inoculation, in its various changes throughout the whole course of the disorder.

An Essay on the Proximate Cause of Animal Impregnation, being the Substance of a Paper read and discussed in the Medical Society at Guy's Hospital, in October, 1799. By John Pulley, of Bedford, Member of the Royal College of Surgeons, London.

Mr. P. in his Preface says, "It is the sole intention of the author to prove by arguments and facts, the inefficacy of the doctrines taught by Dr. Darwin and Dr. Haighton, on the mysterious subject of animal impregnation;" and not those two physiologists only, but "all who give exclusively to one sex the power of reproduction.

"In tracing the process of generation," says Mr. P., "theorists have ranged themselves on three distinct grounds, each of which has had its ardent advocates, and as strenuous opponents. One gives to woman alone the humble office of affording a proper nidus for the due evolution of the fetus, which according to this theory already exists in the male semen, and requires only a fruitful habitation. Another directly reverses this position; it puts the female in possession of every requisite for the formation of a new animal, and considers the male a mere stimulating engine to call the latent powers of the female into life. The third gives not pre-eminence to either sex, but with the mutual embrace produces a mutual effect; it regards both the male and female as most essentially concurring in the work of reproduction, each affording a something, which, uniting under proper circumstances, becomes the proximate cause of impregnation.

"Although every existing theory on the reproduction of animals is reducible in its principle to one of the above grounds, the warm and fertile imagination of speculative minds has led to almost innumerable modifications, each theorist assuming his fundamental position, and forming his deductions in manner and respect to the direction of his fancy."

After combating the opinion that corpora lutea are decisive proofs of impregnation, he says, "What a train of evidence, embracing facts most positive and indubitable, does that author call up against him, who maintains that the male semen alone possesses the power of stimulating the os uteri and adjoining parts, and that by sympathy generation is effected. When a negro man embraces a white woman, why is it that the offspring is a mulatto? When a male as copulates with a mare, why does the mule partake of the nature
nature of both? And when dogs and bitches of different species have intercoufe, why in appearance do the mongrel whelps claim affinity to both parents? Again, it is a self-evident truth that a child may inherit the disposition to the constitutional diseases of either parent; and shall it be said, that it is in the power of sympathy to hand down to posterity the contaminated habit of the father? Besides, if the semen be allotted merely to stimulate the uterine system, it would seem a totally unnecessary secretion; for we find that the sexual act is not wanting, even to effect those changes, which the semen, by this theory, is only permitted to perform."

A Treatise on Febrile Diseases, including Intermitting, Remitting, and Continued Fevers; Eruptive Fevers, Inflammations, Hemorrhagies, and the Profitia; in which an Attempt is made to present, at one View, whatever, in the present State of Medicine, it is requisite for the Physician to know respecting the Symptoms, Causes, and Cure of those Diseases. By A. P. Wilson, M. D. F. R. S. Ed. Fellow of the Royal College of Physicians, Edinburgh, &c. Vol. II. 8vo. pp. 580. Winchester, 1800. London, Cadell and Davies, Callow, &c.

Our readers will see our account of the First Volume in the second vol. of the Med. Journal, p. 300. That volume having exhausted intermittens and continued fevers, Dr. W. postpones the Phlegmaiae of Dr. Cullen, and in this second volume completes his First Part, or Idiopathic Fevers, with the Exanthemata.

In the preface to this second volume, Dr. W. replies to some criticisms on the first, and, as we predicted, his observations on the Brunonian system and nosology have not escaped notice. He replies, "The Brunonian doctrines have been so warmly contested, and so frequently mislaid, that I examined them with a degree of caution and minuteness, which would not otherwise have been necessary. And aware as I was of the hypothetical manner in which the proximate cause of fever had been treated by every other writer as well as Dr. Brown, it will be admitted, I hope, that I have not departed from a due degree of caution in any of my observations on this subject."

"With all the care I was capable of, however, I have not succeeded in conveying the same ideas to every reader. It has been stated by one, that I eludé the general principles of the Brunonian system; by another, that I admit no part of it but that which was admitted by all physicians, before Dr. Brown's Elements of Medicine appeared. By one, many of my objections to this system are regarded as invalid; by another, their validity is admitted, and I am cenüred for allowing it any merit at all. I am said by one to aim at extending the Brunonian system; by another, accused of attempting to bring about a coalition between the systems of Dr. Cullen and Dr. Brown, which the critic more justly than elegantly observes, is as hopeless a task as endeavouring
ing to milk he-goats. What shall I say in answer to such con-
tradictory objections? I shall only observe of the two last, that I
am perfectly unconscious of having made either the one attempt
or the other. All I have attempted is to give an accurate view of
the Brunonian system, to separate the true from the false parts of
it, and to arrange certain facts relating to the laws of excitability
without reference to any system whatever. I shall here endeavour
in a few words to place the result of what was said of the proxim-
ate cause of fever in a clearer point of view.

"When a state of excessive excitement or atony exists independ-
ently of the continued application of some artificial agent, one of
two changes must have taken place; either the quantity or
quality of the natural agents, or the state of the living solid, is
different from that which prevails in health. If it can be shown
that the state of the living solid remains the same, it follows that
the deviation from health is owing to some change in the natural
agents; if it can be proved that the state of these agents remains
the same, it then follows, that the deviation from health is owing
to some change in the state of the living solid. We may go a
step farther; if it can be proved that some of the natural agents
remain unchanged, and yet produce effects different from those
they produce in health, it not only follows that the state of the
living solid is changed, but also that, if this change in the state
of the living solid will account for the changes observed in the
effects of other natural agents, we are not in any degree to attri-
bute such effects to a supposed change in these agents, there being
no occasion for any such hypothesis to explain the phenomena. In
fever, many of the natural agents, caloric, food, light, noise,
for example, evidently remain unchanged, the difference in their
effects, therefore, is owing to a change in the state of the living
solid. But this change is capable of accounting for the change
we observe in the effects of those agents whose condition we can-
not with precision ascertain, the circulating and other fluids. It
follows, therefore, that whatever change may take place in these
during the progress of fever, and however this change may mo-
dify the symptoms of fever, too great lento, acrimony, or other
morbid condition of the fluids, is not the proximate cause of
fever.

"With respect to the hypothesis of fever depending on a change
in the state of the simple solid. As the natural agents act not on
the simple but on the living solid, it is necessary to suppose a
change in the state of the latter; and as this change accounts for
the phenomena of fever, there is no occasion for any other sup-
position.

"And farther, as all the natural agents excite a morbid action,
and as this effect is not confined to any one, but observed equally
in every part of the system, what room is there for supposing
that any one part is more particularly affected than every other?

"Lastly, with regard to fever being a state of accumulated or
exhausted excitability, in the sense in which Dr. Brown uses these
terms,
terms, it is only necessary to refer to the facts, which prove that no such morbid states exist. It is true that the phenomena of syno- nocha are such as we should expect from an accumulation of excitability; but will a forfeit, or an excessive quantity of distilled spirits, frequent fasting of synocho, occasion an accumulation of excitability? It appears then, that in fever the living solid is so changed, that a change is effected in the laws of its excitability, and that this admitted, there is no occasion for any of the foregoing hypotheses to explain the phenomena essential to fever. Upon the whole then, the following, as far as it goes, would appear to be a just view of the nature of fever.

"Every agent acting on the system in general is capable of producing three effects, moderate excitement, excessive excitement, or atony, according to the degree in which it is applied. The first operation of agents constitutes health; the two last general diseases, which has been called fever. If, by the application of artificial, or the excessive application of natural agents, either of the two last states be maintained for a sufficient length of time, the living solid is so changed, that is, such a habit is formed, that the natural agents applied in the usual degree produce the same morbid effects till the diseased habit has been counteracted; which, as in the case of other habits, is the more easily effected, the shorter its duration has been. Hence it is that almost any thing making a strong impression will sometimes remove fever at an early period; and hence the difficulty of removing a fever is generally proportioned to the time it has lasted. The means which cure a fever at an early period, that is, produce a crisis, seem either to expel the offending cause before the morbid habit is affected, as vomiting during a fit of drunkenness; or break the morbid habit before it has gained force, as cold-bathing during the first days of fever. In a more advanced stage, as the morbid habit is corrected with more difficulty, it is corrected more slowly. When in synocho we succeed in changing excessive into moderate excitement, h.e. into that excitement which is followed by exhaustion, we have removed the morbid habit, and consequently cured the fever. The cure of synocho, therefore, depends on the abstraction of stimuli. But as atony is the consequence of excessive excitement, if excessive excitement has lasted for a considerable length of time, atony will always be evident, previous to the restoration of health. Hence it is, that the symptoms of typhus succeed those of synocho. When we succeed in changing atony into moderate excitement, we have corrected the morbid habit, and consequently cured the fever. The cure of typhus, therefore, depends on the addition of stimuli.

"I have been indirectly accused of having ascribed too much importance to the study of nosology. It is fashionable at present to regard nosology as a very useless branch of medicine. Will the knowledge of a nosological system, it is said, enable you to cure a disease? It certainly will not, but it greatly assists in acquiring the knowledge that will. Let those who flight the lab-
hours of the nosologist, recollect that it is his province to point out the symptoms which distinguish one disease from another, and to arrange diseases in such a way as may befit their affinity, and consequently assist the memory in recollecting their modes of treatment. The anatomist detects the changes induced by internal disease; but of what use would this knowledge prove, did not the nosologist point out the means of ascertaining the presence of such morbid states previous to death. In vain might the chemist and botanist supply us with medicines, did not the nosologist enable us to distinguish the cases in which they are useful.

"It has been asserted, that the practice of medicine would be improved by attending to symptoms individually, without attempting to ascertain their various combinations, and applying to these combinations particular names. Those who make this affirmation maintain, and if the affirmation is true, justly maintain, that nosology is an useless study. Is the affirmation true? Does any symptom at all times require the same mode of treatment? Nay, is not the same symptom in one case salutary, in another pernicious? We must, therefore, be influenced in treating each symptom by an attention to those which accompany it, that is, an attention to the combinations of symptoms is necessary, and consequently nosology of the first importance. By far the greater number of mistakes I have witnessed in practice, have originated from the neglect of nosology. It often happens that an opinion, at first maintained on no other account than its singularity, becomes current among those who are unable, or will not be at the trouble, to think for themselves. Many exclaim against nosology, but cannot tell why. 'The truth is, an accurate knowledge of it is acquired with difficulty, and the indolent are glad of an apology for neglecting it altogether.'

He concludes his preface thus:

"Contrary to my first intention, the present volume includes all the species of eruptive fevers, and consequently finishes the first part of the work, comprehending idiopathic fevers. The two volumes now published, therefore, form a Treatise on Idiopathic Fevers, and may be regarded as independent of those which are to follow.

"The Symptomatic Fevers will form the three remaining volumes. In the first of which, that is, the third volume of the work, the inflammations of the skin, head, and neck, will be considered; in the fourth, those of the thoracic and abdominal visceras, and of the joints. The last volume will comprehend the hemorrhagies and proftuvia, with a more detailed view of the nosology of febrile diseases.

"It is my intention, when the present work is finished, to commence another, (which will consist of two volumes, and for which the materials are already collected) on the Nervous Complaints most frequently complicated with Febrile Diseases."

In the volume before us, the author, in concluding his second book, treats of the varieties of continued fever, viz. petechial, miliary, aphthous, vesicular, and erythematous.
The third book contains the Exanthemata, viz. variola, vacciola, varicella, rubeola, scarlatina, pellis, and urticaria.

As our readers have probably more curiosity respecting the Plague than either of the other diseases treated of in this volume, we shall present them with a few extracts on that subject:

"Of the Plague.

"Although few British physicians have occasion to practice in the plague, the propriety of being acquainted with a disease, which has demanded so much attention, and bears so strong an analogy to complaints which every day fall under their care, is too apparent to require any comment. Besides, we cannot foresee in what circumstances we may be placed; and for a physician to betray ignorance of the plague would be unpardonable.

"There are few diseases so remarkably varied, and there are few, perhaps none, of which it is more difficult to give an account, which shall be at the same time sufficiently full and distinct. The reader will find the best writers, who have had an opportunity of seeing the disease, complaining of this difficulty.

"As much as possible to prevent confusion, they have divided the plague into different classes; nor is it possible without this to give a just view of the complaint, since no two diseases are more opposite than the different forms of the plague. In one we shall find it the most dreadful of all fevers, destroying without exception all whom it attacks; in another we shall find it confinling chiefly of an eruption unattended by danger. Why, it may be said, are diseases so different, regarded only as varieties of the same? However different these extremes, they are not only produced by the same specific contagion, but almost insensibly run into each other; from which we may form some idea of the variety which the plague presents. It will not then appear surprising that the difficulty of arranging its symptoms, so as on the one hand to avoid confusion, and on the other to give a comprehensive view of the complaint, be very great. In fact, there is no author, although most of those who have written on the plague speak from their own observation, who has overcome this difficulty. In all, we find the account either short, and consequently more or less imperfect, or of considerable length, and more or less confused. So varied are the symptoms of the plague, that if the common varieties are given, the account must be tedious, and then it is impossible perhaps to prevent it being in some degree perplexed.

"I shall not spend time by laying before the reader the modes of division adopted by different writers, or by pointing out the objections which might be made to them. The objections conflict chiefly, in many of the divisions not being marked with sufficient precision, so that it is often impossible to lay what are the corresponding divisions in the different accounts of the disease; as the reader will perceive if, for example, he compare together the different accounts of the plague in the Traité de la Peste, or any of these
these with the division adopted by Dr. Russell, in his Treatise on the disease.

"In dividing a disease into varieties, each variety must be marked by some symptom which constantly attends it. It must not be accidental or unconnected with the state of the symptoms in general, which would render the division useless; but must mark a variety, in which the symptoms on the whole, and, what renders the division of more importance, the prognosis, differ from those of other forms of the complaint.

"I shall not defer a particular account of the eruptions, namely, the buboes, carbuncles, &c. till after the different forms of the disease have been considered, as has usually been done; by which we are forced to use terms before they have been defined; nor on the other hand, is it proper, where the variety is so great, to interrupt the account of the general course of the disease, in order to describe the different eruptions. It therefore appears necessary to depart from the order which has been pursued in laying down the symptoms of the other exanthematæ, and to regard bubo, carbuncle, &c. as terms which must be defined, before proceeding to give the symptoms of the plague.

"Of Pestilential Eruptions:

"1. Of Pestilential Buboes.

"A pestilential bubo at its commencement is a small, hard, round tumour, readily perceptible to the touch, about the size and shape of a pea, it is moveable under the skin, the appearance of which is not altered at an early period, the bubo lying at a greater or less depth, and the swelling not appearing externally.

"As the tumesced gland enlarges, it changes from a round to an oval shape, becoming at the same time less moveable. The integruments now begin to thicken, and the swelling to appear externally.

"The appearance of the bubo is often preceded by a sense of tightness and pain sometimes lancinating, or itching, in the part where it is about to appear, now and then by shivering. In many cases, however, the small swelling just described comes on without being preceded by any peculiar symptoms.

"Some buboes are indolent and insensible, others very sensible and rapid in their progress. The tumour advancing quickly to suppuration, is generally regarded as favorable. When the buboes suppurate properly, De Mertens observes, and there is a separation of effchars from the carbuncles, with a remission of the febrile symptoms, the prognosis is good. No general rule however can be laid down. Cases where early suppuration takes place often prove fatal; and there are many histories of cases terminating favorably where the buboes were extremely indolent and terminated in resolution.

"It is difficult to foresee in what way a bubo will terminate. The fluctuation is often scarcely perceptible where suppuration has taken place, and buboes are sometimes resolved after fluctuation has
has been very evident. Their progress indeed is almost always more or less irregular, especially after the first week. At one time they seem advancing to suppuration, at another show a tendency to resolution. But these variations, Dr. Ruffell remarks, chiefly respected the integuments; for the gland itself when carefully explored was seldom found to alter, and where the tumour actually dispersed, it was not suddenly, but by slow degrees. Thus from the alteration in the teguments alone, the whole tumour, on a superficial view, seemed to lessen or increase, though the gland remained the same; and I am inclined to think that this deception was often the cause of the bubo being said to fluctuate, or to vanish in appearance entirely, and again return. He adds, however, At the same time I am far from thinking that this fluctuation was never real. And Chenot observes, Vidimus quoque abruptam suppurationem in his refuscitari ac demum per effusio- nem puris afolvi.

The bubo as it increases in size becomes somewhat flat; and generally about the second week the skin over it grows tense and painful, and begins to be inflamed. In some cases the inflammation is moderate, in others considerable; but it seldom terminates in gangrene, although the skin now and then assumes a bluish colour.

It sometimes happens, however, that the bubo runs to suppuration without any degree of inflammation appearing on the skin, and then, as it is generally harder than a suppurated venereal bubo, it is often difficult to determine whether suppuration has taken place or not. When buboes break spontaneously it generally happens in the third week, sometimes at a later period.

The buboes most frequently appear in the groins or a little lower, among the lowest cluster of the inguinal glands; they also frequently appear among the axillary glands; sometimes, though more rarely, they have their seat in the parotid, and the disease is then by many reckoned more dangerous than when the buboes appear in the groins or arm-pits. Still more rarely they appear in the maxillary or cervical glands.

The latter too, namely, the maxillary and cervical glands, Dr. Ruffell remarks, were seldom observed to swell without either the parotid swelling at the same time or soon after, or a carbuncle protruding near them; they never were the sole pestifential eruptions, and I recollect few instances of their coming to maturation. It has been remarked by others, that the parotid bubo seldom appears unaccompanied by one or more in the axilla or groin.

It may upon the whole be observed, that the axillary buboes suppurate more frequently than those situated about the fauces, and the inguinal more frequently than the axillary.

Buboes often make their appearance on the first day of the complaint; sometimes indeed they are among the first symptoms. It has been observed, that when they appear later than the third or fourth day, they are generally preceded by an exacerbation of the febrile symptoms. Those which come out at so late a period, however,
however, are not, for the most part, the first which appear in the course of the complaint: for a succession of buboes sometimes takes place, till three or four have made their appearance. In this case several hours usually intervene between the appearance of any two of them.

"It sometimes happens that no buboes appear, and these cases are upon the whole the most fatal. This is a circumstance which particularly demands attention, as the cases unattended by buboes and other pestilential eruptions generally make their appearance at the commencement of the epidemic, and have often, in consequence of the absence of the eruptions, been mistaken for other complaints. In other cases, particularly towards the decline of the epidemic, the buboes and other eruptions often form the principal part of the complaint, which is then unattended by danger; from which it would appear, that the eruptions in the plague are to be regarded as favorable symptoms; but of this I shall presently have occasion to speak more particularly.

"Where the inflamed gland advances to suppuration more rapidly than the integuments, troublesome fistulous ulcers are sometimes formed, if an artificial opening has not been made in the skin. This accident however is rare; in general the buboes, left to themselves, do not prove troublesome.

"When they do not suppurate, and the patient recovers, they gradually disappear, generally in the space of a few weeks. In some cases they are succeeded by an induration of the gland, which remains for many months. Even where suppuration has taken place, if the cure proves tedious, either in consequence of the matter having been discharged by too small an opening, or the opening having repeatedly closed in the progress of the cure, a similar induration sometimes succeeds, which in like manner sooner or later disappears, these indurations never terminating in cancer.

"Such are the circumstances to be learned from attending to the external appearances of the buboes; some further circumstances, of less moment however, have been ascertained by dissection.

"It has been the practice of many, particularly the French surgeons, to extirpate the buboes, which gave them an opportunity of observing the internal changes which take place in them. From the appearances on dissection they have been divided into several different species. It is unnecessary to detain the reader with an account of this hitherto useless division; he will find it at length in the Traité de la Peste from the 428th to the 434th page. One observation deserves attention; it has just been remarked, that the skin covering the buboes never runs to gangrene; dissection shows that it is otherwise with respect to the gland itself. 'Je coupai par le milieu celle (h. e. the bubo) qui etoit sur les vaisseaux, que je trouvai toute noire. Le lendemain j'ouvris le bubon, j'y trouvai le corps glanduleux comme un rein de mouton, et tout noir.'

"Besides the true bubo, another pestilential eruption has also received the name of bubo. This eruption is so rare that some who
who mention it have been accused of misrepresentation. This accusation we are now assured is groundless.

"The principal circumstance in which the spurious differs from the true bubo, is in the former appearing indiscriminately on almost every part of the body, while the true bubo is confined to the groin, axilla, and parts about the fauces. 'Spurious buboes were observed,' says Dr. Russell, 'on the head, the forehead, the throat, the shoulder, above the clavicle, the neck, on or above the scapulae, the back, the side under the breast, the belly, the hip, hind part of the thigh near the ham, the leg, the scrotum, the arm near the usual place of issues, inside of the arm near the elbow, outside of the fore arm, and near the wrist.'

"Some of these buboes, if they are not lanced at a proper time, grow to a great size, particularly those on the scapulae or back; in other parts, however, they seldom much exceed the size of a common hen's egg. They generally make their appearance about the second or third day, and for the most part after the protrusion of true buboes or carbuncles. They generally suppurate, though less rapidly than the true buboes.

"2. Of Carbuncles.

"Next to buboes, carbuncles are the most remarkable of the pestilential eruptions.

"The reader will find carbuncles divided by different writers into several varieties. One makes three, another four, a third five different kinds.

"Dr. Russell divides the carbuncles he met with, into five varieties.

"The first appeared in the form of a small pustule about the size of half a pea, on its upper surface of a dusky or yellow colour, and a little wrinkled. The skin which immediately surrounded this pustule was hard and inflamed. The pustule itself soon became very painful, and continued to increase till it became a tumour of the size of a nutmeg, and sometimes that of a walnut, and a yellowish matter was secreted under the cuticle, which was sometimes moist, at other times dry and crusty; the rest of the tumour assumed a dark reddish colour, the circle which surrounded it appearing at different times of various hues.

"On the third, fourth, or fifth day of the carbuncle, a gangrenous crust appeared on the middle of it, which soon occupied the whole surface of the tumour, exactly resembling the black eschar formed by caustic.

"This crust, when the termination was favourable, was thrown off by suppuration, leaving an ulcer of various depth, which for some time continued to discharge matter. When the case terminated fatally, the crust remained dry and often spread to the inflamed circle, surrounding the carbuncle, so as to form a gangrene of considerable extent.

"The second kind of carbuncle appeared in the form of a small angry pustule, not rising so high as the former, more disposed to spread, and becoming gangrenous on the second day. In this state
it was not easily distinguished from the other, but was generally surrounded with a more highly inflamed ring. It chiefly attacked tendinous parts, particularly the joints of the fingers and toes.

"In the third variety, the cuticle was at once raised into a blister of the size of a horse bean, filled with a dusky yellow or blackish fluid, and the skin which surrounded this variety of the carbuncle was less tense and of a paler red than that surrounding either of the foregoing. When the blister broke, the cuticle fell upon the flat surface, which was of a dark colour and soon became black. At this period, that is, about the third or fourth day of the carbuncle, it resembled the preceding varieties, except that it was flatter. The circle surrounding the eschar gradually assumed a very dark red, but never became gangrenous. The eschar was about the size of a six-pence. This carbuncle was very painful, and five or six sometimes appeared on the same patient.

"The fourth variety was a small red spot raised only to the touch, which gradually rose higher and spread, till in twenty-four hours it was a flattish dusky pustule, surrounded by a light rose-coloured margin. This carbuncle was very painful, and when it appeared on the face occasioned swelling, but without inflammation of the skin. It often became black beyond the rose-coloured margin on the second day, and the mortification spread to the neighbouring parts. This species of carbuncle always accompanied other eruptions, and was usually pretty numerous.

"The fifth and last variety appeared at first a pustule, which, on the second day, resembled that of the small-pox; it rose in the form of a cone to twice the size of a large distinct pock with a blunt yellowish point, which, instead of advancing to suppuration, became black to the size of a large field pea. The gangrene in this case however did not spread farther. The margin became of a dusky red, but appeared brighter as the suppuration which threw off the eschar advanced. After the second day, this differed from the third and fourth varieties only in the gangrenous part being of less extent, and the pustule more raised.

"There are certain eruptions which now and then appear in the plague in some respects differing considerably from any of the carbuncles just described; in others resembling them. Such is the eruption which has been termed papulæ ardentæ, or fire bladders.

"But it would be tedious to enumerate all the various eruptions of this kind which have been observed in different epidemics. The true pestilential carbuncle may be defined, a pustular or vesicular eruption, sooner or later running to gangrene.

"The eruption called anthrax, is nothing more than a carbuncle after it has become sphecelated.

"Carbuncles, to whatever variety they belong, for the most part do not exceed the size of a walnut; they have sometimes been observed considerably larger. The time of appearance is uncertain; they sometimes shew themselves on the first day of the complaint, but more commonly not till a later period; and when several ap-
pear on the same person, they generally succeed each other rapidly. They have been known to come out as late as the eighteenth or twentieth day.

"Respecting the number which appears on the same patient, Dr. Ruffell observes, 'Of those of the first and second species seldom more than one or two were observed in the same subject, in general one only. The other varieties occurred in greater number, and including those of the fifth, I have sometimes counted between twenty and thirty, but this happens very rarely.'

"This eruption is always attended with considerable pain, which in some cases is very violent. No external part of the body is exempted from carbuncles. 'I have observed them every where,' the author just quoted remarks, 'the penis and scrotum not excepted, but never observed them on the tongue, the tonsils, and internal parts of the mouth,' (there have been instances however of their appearing on the tongue) though in carbuncles on 'the cheek, near the corner of the mouth, the gangrene spreads inwards, and in one instance of a carbuncle on the eye-brow, the gangrene spreading upon the globe of the eye had destroyed part of it.'

"The carbuncle is a less favorable eruption than the bubo. Carbuncles were regarded by the Russian physicians, Dr. Guthrie informs us, as a sign of greater malignity than buboes; but of this presently. They thought the carbuncle indicated less danger when red than when livid; when it suppurred than when it did not. When the hands and feet were the seat of carbuncles, Dr. Guthrie observes, the patient seldom or never recovered. Carbuncles on the spine were also regarded as particularly unfavorable."

"Of the other Symptoms of the Plague.

"That I may abridge the following account of the symptoms of the plague, and consequently render it more distinct, it is proper to observe, that all the symptoms both of synocha and typhus occasionally attend this fever. It is unnecessary again to detail all of these, for which I refer the reader to the first volume; and shall here consider at length, those which characterise the plague, or appear in this disease under peculiar modifications.

"It has already been remarked, that in the several divisions of the plague adopted by writers, many of the varieties are ill defined. They seem to be marked by accidental symptoms, and some of them by no particular symptom, but by the general mildness or severity of the disease. In the former case the division can be of no use; in the latter it can admit of no precision. Besides, most writers on the plague, speaking from their own observation alone, describe the complaint as it appeared in one or two epidemics, and in almost all epidemics there are peculiarities. It is only by comparing many, that we can form an account of the disease generally applicable.

"On comparing different epidemics, we shall find, that whatever be true of other eruptions, buboes are salutary. They almost always
always mark a form of the disease less generally fatal than that unattended by this eruption. Those perished, Dr. Russell remarks, sometimes within the twenty-four hours, sometimes on the second or third day; they had neither buboes nor carbuncles, and it was very rare to find suspicious marks of infection on the dead bodies. In another place he observes, 'the total absence of buboes in those who died suddenly I have doubt of.' He also remarks, 'that the plague, under a form of all others the most destructive, exists without its characteristic eruptions or other external marks reckoned pestilential, can admit of no doubt.' The Russian physicians, Dr. Guthrie informs us, found the cases attended with buboes less fatal than those attended with carbuncles. Carbuncles and petechiae, De Mertens, in his account of the Plague of Moscow, observes, are not critical eruptions, they only denote a putrid condition of the humours; whence it follows, that in proportion as buboes are more common, and petechiae and carbuncles more rare, the milder is the plague. Orrûæus, in his Treatise on the same Plague, observes indeed, that buboes often attended the most acute form of the disease; yet in another place he informs us, that there were no buboes in the worst form, their germs only being sometimes observed after death; and Samoilowitz, in his account of this epidemic, in describing the worst form of the disease, notices petechiae and carbuncles as frequent symptoms, but makes no mention of buboes.

"Upon the whole, then, the plague unattended by buboes, runs its course more rapidly, and is more generally fatal, than when accompanied by this eruption. The plague may therefore be divided into that which is, and that which is not, attended with buboes.

"The first of these includes many varieties, from that in which the prognosis is almost uniformly good to a form of the disease little less fatal than that unattended by buboes. The appearance of the buboes also affords the means of subdivision, for it will be found, on comparing the accounts of different epidemics, that upon the whole the earlier the buboes appear, the milder is the disease; thus, for example, in the first class of Dr. Russell's division, which was the most fatal, buboes were very rare; in the second, which was also very fatal, though less uniformly so, buboes appeared on the third day or later; in the third class, which was less fatal, they appeared earlier; in the fourth, which was still milder, buboes generally appeared on the first day; in the fifth, which never proved fatal, they were among the first symptoms of the complaint.

"To the two foregoing forms of the disease a third might be added, since the pestilential eruptions towards the end of the epidemic sometimes appear unattended by fever. This form, however, which is merely a local affection unattended by danger, demands little attention.

"The most fatal form of the plague makes it attack in various ways, sometimes merely with depression of strength, a sense of weight
weight in the head, confusion of thought, giddiness, dejection, and oppression about the precordia, often accompanied with a bitter taste in the mouth. * The patient is inclined to be silent, shews much anxiety in his countenance, but makes few complaints; the febrile symptoms are very moderate. The attendants suppose the patient a little indisposed, but telp & nothing alarming; yet such patients often die within the first twenty-four hours, sometimes on the second day.

"In general, however, this form of the plague makes its attack leaves deceitfully. In an epidemic described by Chenot, that of Marseille, and many others, the symptoms from the first were alarming, the complaint often appearing with violent and irregular shaking.

"Delirium is sometimes the first symptom observed. At other times, a remarkable state of the pulse, which very suddenly becomes so weak that it can hardly be felt, frequent and intermitting, with much debility and languor, introduces the disease. The prostration of strength is sometimes so sudden and complete, that Mr. Smith, Dr. Guthrie informs us, saw men in apparent good health, on being infected by the plague, suddenly drop down as if shot by a musket ball. Sometimes, instead of mere debility and languor, the patient is affected with extreme horror and despair, and his spirits sink so low that nothing can recall them.

"At other times, the disease attacks with very slight chills, soon followed by a burning heat, which remains during the disease; as soon as the heat commences, the patient complains of insufferable head-ach and excessive thirst. Sometimes, as in the plague of Russia, described by Oræus, the patient is suddenly seized with violent shivering succeeded by a hot fit, the shivering and hot fit alternating several times.

"The first symptom of the plague is sometimes a violent beating of the temporal arteries, while the pulse at the wrist is small and feeble. In this case the heat is generally moderate, but the head-ach intolerable. In the plague which raged at Lyons in 1628, a burning heat in some of the viscera, and a dull pain, or rather great heaviness of the head, announced its approach.

"The plague sometimes comes on with violent palpitation, and strong convulsive tremblings. The plague which raged in London in 1665, often made its attack in this way,

"As the complaint advances, it assumes more of the appearance of the fevers we have been considering. The inflammatory symptoms generally run high for the first day or two; but for the most part, the plague assumes the form of typhus at

* The bitter taste in the mouth the reader will find mentioned by different writers as characteristic of the plague. It is observed by some, that a favourable change seldom happened while this symptom continued.
Dr. Wilson, on Febrile Diseases.

an early period; and the patient soon becomes delirious or comatose.

"The delirium is sometimes of the furious kind, particularly, Orrceus observes, in those of a robust and full habit, and in whom a full meal appeared to be the immediate exciting cause. In general, however, the delirium is of that species which characterises typhus, the patient appearing rather stupid than outrageous, and complaining of a pain at the heart, a symptom frequently observed in the plague. When coma comes on early, it has been looked upon as affording a worse prognosis than delirium, particularly if it suffers no evident remissions during the day time. Both delirium and coma indeed are almost always most considerable during the night. The remission in the day time is generally more evident when the patient is delirious than when he is comatose.

"Whether he becomes comatose or not, there is always present a very remarkable muddy appearance of the eyes, which is sometimes observable at the very commencement, and is one of the most characteristic symptoms of the disease. This appearance of the eyes in some degree resembles that in the last stage of malignant fevers. It is not, however, described as altogether such, for with the muddiness there is blended a degree of luftre. It is an appearance in short very remarkable to those who have seen it, but not easily conveyed in words.

"Almost all writers on the plague take notice of a peculiar cast of countenance, which to those who are conversant with the disease, is one of its best diagnostics. It was the state of the eyes, Dr. Russell remarks, which contributed chiefly to occasion that confusion of countenance which he does not attempt to describe, but from which, after repeatedly observing it, he could with some certainty pronounce whether the disease was the plague or not.

"The danger is very generally proportioned to the degree of this symptom. When the eyes resume the natural appearance, particularly when this happens after sweats, the prognosis is favorable. But in the form of the plague we are considering, this hardly ever happens. In the comatose the muddiness of the eyes is most remarkable. Their fierceness is most striking in those who labour under delirium, particularly the furious delirium; and it sometimes happens, that the coma and delirium, with the peculiar casts of countenance which accompany them, alternate with each other. In the delirious, however, there is still an appearance of muddiness, and the eyes retain some luftre in the comatose. These appearances of the eyes are less remarkable in children than in adults. Such is the best account I have been able to collect from the observations of those who were conversant with the disease, of that peculiar appearance of the eyes, which all who have seen the plague agree, to remarkably characterizes it.

"The changes which take place in the eye are not always confined to its appearance only; the retina is sometimes much affected. The patients
patients complain of seeing sparks, flashes of fire, and various colours passing before the eyes; this is only a greater degree of the symptoms termed muscae volitantes. Deceptions of sight, however, are not frequent symptoms in the plague. Deceptions of hearing are still more rare. Deafness, as in other fevers, is generally a favourable symptom, but it seldom attends the plague. With respect to the other senses, nothing particular is to be observed. The depravation of the taste, which is in some measure characteristic of the plague, I have already had occasion to notice.

"The anxiety in many cases is extreme, the patient constantly changing his posture, and soon finding the present as uneasy as the last, so that he is sometimes perpetually in motion. When this symptom is considerable, it affords a very unfavorable prognosis. The appearance it assumes when at its height, which generally indicates the approach of death, is described by authors, who have termed it a mortal inquietude, in very strong terms: The patient incessantly twists his body as if in agony, but is incapable of giving any account of his feelings, so that it is difficult to determine whether it is occasioned by a great degree of anxiety or severe pain.

"The temperature, in the progress of the disease, is various. While the chills continue to recur, its increase is not considerable, and in the cases where it is most considerable, it seldom equals that which we often meet with in common synocha.

"The state of the pulse is also various. In most cases after the first days of the disease, in many after the first hours, and in some from the commencement, it is feeble and frequent. Sometimes it is remarkably hard and small, but regular, at other times it is irregular or intermittent, and at length fluttering.

"During the exacerbations, it often becomes full, open, and strong, as Dr. Russell expresses it; after which it again sinks; but in a more advanced state, a different change is observed during the exacerbations, the pulse becoming so feeble that it can with difficulty be felt.

"It has been observed of the pulse in the plague, that though to a slight touch it is strong and full, it is often easily compressed; a state of the pulse not readily accounted for, which is mentioned however by more than one author from their own observation. The most striking fact relating to the state of the pulse in the plague is, that it has often been observed nearly natural while the other symptoms indicated much danger.

"As the disease advances, the increase of debility is generally indicated by a considerable affection of the speech; in some cases amounting only to a degree of confusion and faltering, or a change of tone; in others the voice is greatly impaired or wholly lost. The affection of the voice appears the earlier, the greater the debility. When this is excessive from the beginning, when, as Chenot observes, 'Ægri erceti stare aut sedere impotes, proprio ponderes labebantur,' a considerable affection of the speech is generally observed.
observed on the first night, or the second at farthest. When the debility is less considerable, it is delayed to the third day or later.

"The state of the tongue, as in other fevers, is various. It often retains the natural appearance throughout the greater part of the disease. Sometimes it is moist, and covered with thick mucus, at other times dry. Sometimes, Dr. Ruffell observes, 'it became parched with a yellow streak on each side, and reddish in the middle, but it never was observed to form so thick a fur or become of so dark a colour as in the advanced stages of some other fevers. The dryness or moistness of the tongue,' he adds, 'rarely corresponded with the febrile symptoms; for the tongue was often moist where the external heat was intense, and the pulse indicated high fever; and on the contrary, parched where the fever in appearance was very inconsiderable.'

"Vomiting, though more frequently observed in less violent forms of the plague, sometimes attends this variety. The pain at the heart, so frequently complained of, Dr. Ruffell thinks situated about the orifice of the stomach. As it often accompanies vomiting, he was at first led to believe, that it arose from bile or other irritating matter in the stomach. He found, however, that it was not relieved by the discharge. It seems more than probable, from the nature of the symptoms, that this pain proceeds from an inflammatory affection of the stomach. The matter evacuated by vomiting is generally bilious. It is sometimes of a dark colour and mixed with blood; and it is not uncommon in the plague for worms to be thrown out by vomiting. Whatever be the appearance of the matter rejected, when vomiting occurs at an early period and returns at intervals, the prognosis is bad.

"Nausea without vomiting is a frequent symptom. It does not seem to proceed from irritating matter in the stomach, as repeated vomiting is not found to relieve it. There are few means more effectual for allaying nausea and vomiting than those which promote the perpiration. It has been observed of the plague, that if the repeated reaching occasions a moisture on the skin, the nausea abates.

"A diarrhoea is apt to supervene, sometimes during the first days, more frequently at a later period. This is invariably a dangerous symptom. The matter passed by stool is similar to that rejected by vomiting, often bilious, frequently with an evident admixture of blood; sometimes blood only is passed. Chenot often met with dysenteric purging in the plague.

"As there are few fevers in which purging is so unfavorable, so there are none in which constipation appears to be less injurious. A number of the sick, Dr. Ruffell observes, 'were diffused to be convulsed throughout the disease, and some had no stool for several days, the popular dread of provoking a diarrhoea proving a bar to laxatives and even to simple clysters, which are readily admitted at other times. The consequences of this sluggishness of the bowels were by no means what might have been expected, for on comparing a number of cases in which the body had been
all along regular, with others in which there had been no stool,
the former did not appear to have been particularly exempt
from those symptoms which might plausibly have been imputed
to constitution in others.

"The urine is often observed in no respect different from that
of a person in health; at other times it is found pale, high coloured,
clear, turbid, without sediment, or with a great deal, and sometimes
more or less tinged with blood; in short, it assumes in different
patients, or sometimes in the same at different times, all the vari-
ous appearances observed in other fevers.

"There is no excretion of such consequence in the plague as
that by the skin. When the skin remains parched, or when only
flight, clammy, partial sweats appear, the prognosis is bad; when
on the other hand a thin, general, and copious sweat takes place, it
often proves more or less critical.

"Dr. Ruff observes, that the breath and perspiration were sel-
dom or never fetid. Other writers, however, have observed, that
they are often fetid to a great degree.

"As in many, perhaps in all the other exanthemata, epileptic
fits now and then occur. They are a rare symptom in the plague.
When they appear, they generally precede an eruption.

"Slight convulsive motions of the limbs and subitileus tendinum
are frequent; with respect to other convulsive motions, hiccup
rarely, and sneezing almost never, attends the plague.

"Hemorrhagies are a common symptom, and unless very mode-
rate, generally indicate much danger. They are frequent, as appears
from what has been said, from the stomach, intestines, and kidneys.
They are more common however from the nose, and in women from
the uterus, than from other parts. These, particularly the hemor-
hagies from the nose, when they occur early in the disease, and
the patient is young and plethoric, sometimes bring relief. At a
later period, hemorrhagies are always unfavourable, and when
they become profuse, the patient seldom recovers. It has been
remarked, as might have been inferred a priori, that the blood
which flows in these hemorrhagies is thinner in proportion as the
disease is further advanced.

"Such are the symptoms of the worst form of the plague. The
strength gradually sinks, till the pulse impresses the finger with only
a weak, undulating, or tremulous motion, with frequent intermif-
tions. The surface, particularly on the extremities, becomes cold
and covered with clammy moisture, the pulse cannot be felt, and
the patient calmly expires, or, as frequently happens in all idiopa-
thic fevers, is carried off by convulsions.

[To be continued.]