

Thoughts on the nature and treatment of several severe diseases of the human body ... Vol. I / [Edward James Seymour].

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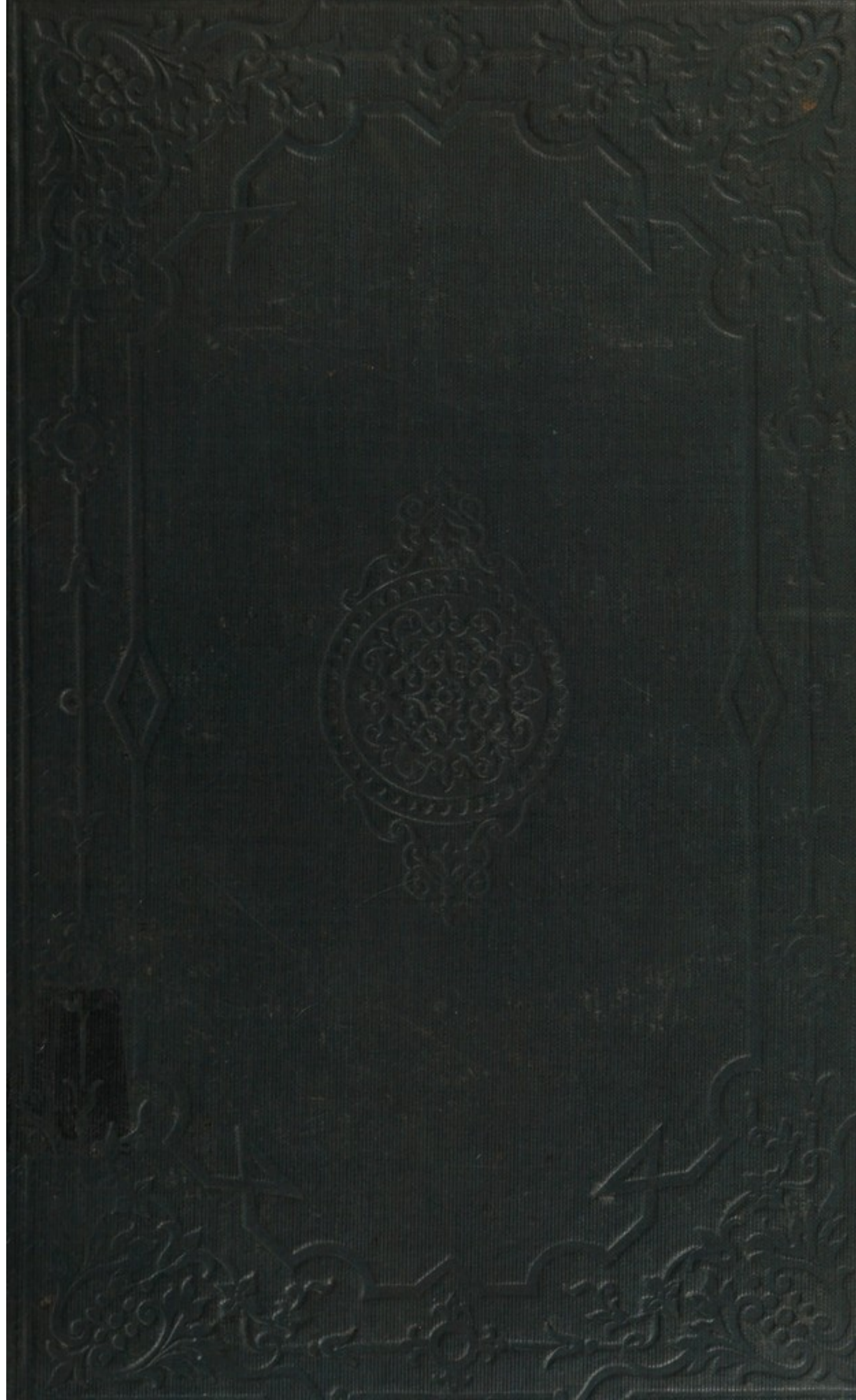
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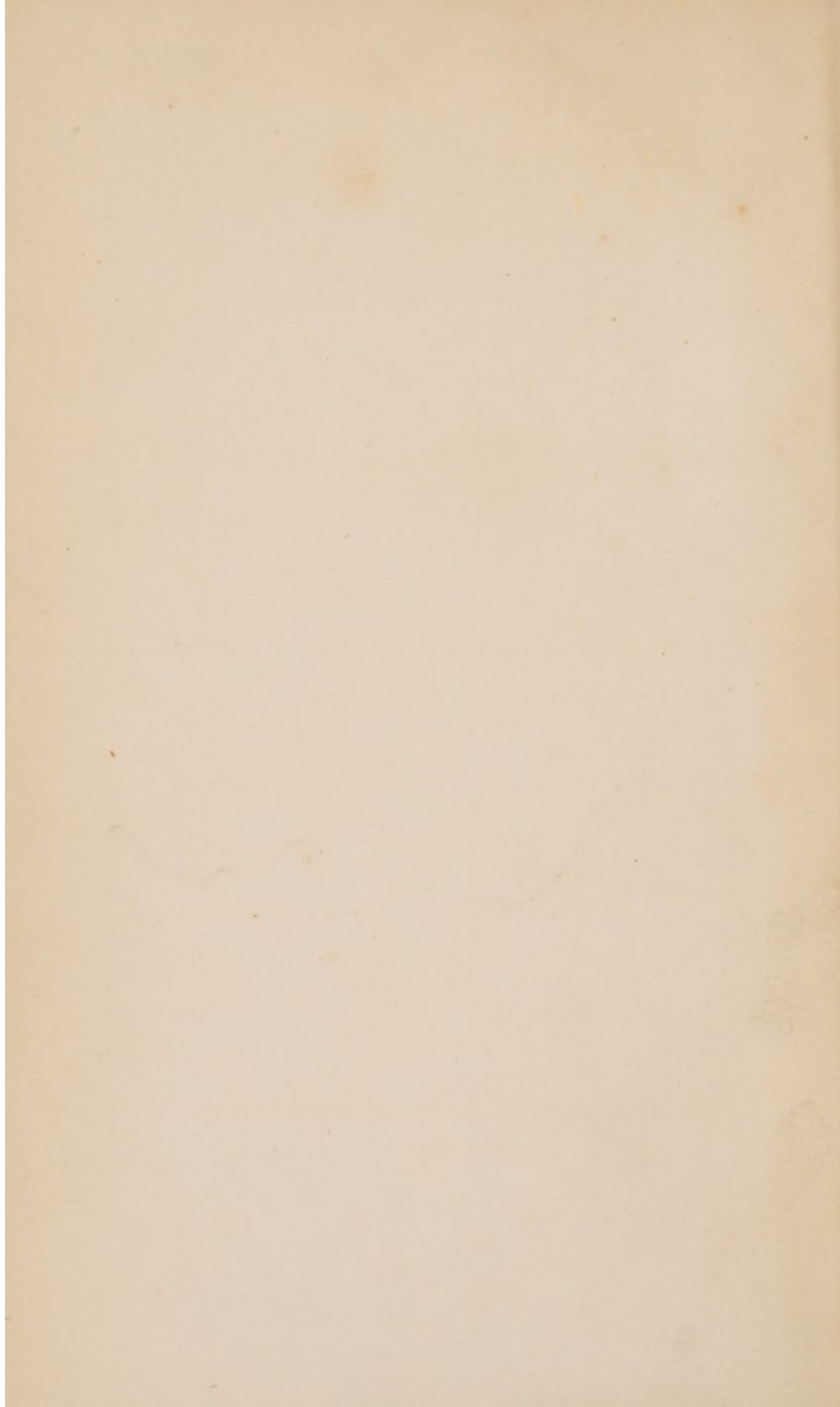


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THOUGHTS



ON THE

NATURE AND TREATMENT

OF SEVERAL SEVERE

DISEASES OF THE HUMAN BODY.

BY

EDWARD J. SEYMOUR, M.D. F.R.S.

LATE PHYSICIAN TO ST. GEORGE'S HOSPITAL,

ETC. ETC. ETC.

IN TWO VOLUMES.

VOL. I.

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TO
CHARLES LOCOCK, ESQ. M.D.

&c. &c. &c.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,

AND

FIRST PHYSICIAN (ACCOUCHER) TO THE QUEEN.

MY DEAR LOCOCK,

THERE is no one to whom I can with more propriety or more pleasure dedicate this little work than to you. Thirty years have elapsed since we first met amidst the studies of our profession, and during that long period nothing has occurred to interrupt our mutual friendship.

I have had the happiness of seeing you rise to be among the very first of our profession by your own talents and unwearied industry, while your kind feelings to others have increased in proportion with your rapid success.

None can have experienced more than myself, the warm rejoicing in the moments of prosperity, and the kind sympathy in the hours of affliction, which you shew to all around you, and none can have admired more the quiet exercise of charity, that "charity which vaunteth not itself," which you have shewn to the families of those in our profession less fortunate than yourself.

May you live long in the performance of the same good works, curing many, relieving more, and comforting all !

I offer you the following "Thoughts" with every expression of esteem and regard, and am always,

MY DEAR LOCOCK,

Yours most faithfully,

EDWARD J. SEYMOUR, M.D.

13, Charles Street, Berkeley Square,
March 30th, 1847.

PRELIMINARY OBSERVATIONS.

WHEN I resigned my office of Physician to St. George's Hospital in 1845, many of my friends and pupils expressed a wish that I should publish parts at least of Clinical Lectures, delivered by me annually during the preceding seventeen years.

It was impossible to comply with this request. These lectures had never been committed to paper, though a few had been published from a short-hand writer's notes in the Medical Gazette. I thought it would more completely meet their wishes, if I published my observations on disease, derived from public and private practice, principally in reference to the cure.

I have endeavoured to be as plain as is consistent with the subject, placing myself as it were in the situation of a student, of one beginning practice, and asking what I should like to know best as a guide in the cure of the diseases which are treated of in this volume.

If it gives the required information, or arrangement of information, to even a few of my professional friends, I shall consider it to be my duty to extend it to one or two other volumes of a similar character.

I must intreat a little indulgence as to style, when I say these "Thoughts" have been put on paper under unceasing professional occupation and much anxiety. They relate to nothing which I have not seen myself; and the truth of many of the statements, and the effects of many of the modes of cure, can be vouched for by my numerous pupils, long since grown into friends, who witnessed my practice at St. George's Hospital.

13, Charles Street, Berkeley Square,
March 30th, 1847.

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ERRATUM.

Page 237, line 2, *instead of* at the distance, one pair from the other, of one-fourth or one-sixth of an inch, *read* at the distance, one pair from the other, of rather less than two inches.

SYNOPSIS

INTRODUCTION

The purpose of this study is to determine the effect of the different types of soil on the growth of the different types of plants. The results of the study will be presented in the following sections.

THOUGHTS,

&c. &c.

“The real physician is the one who cures. The observation which does not teach the art of curing is not that of a physician; it is that of a naturalist, or, if you prefer it, of a physiologist, unaware of the objects of a physician.”

BROUSSAIS, *Examen des Doctrines médicales*.

I.

ON DISEASES OF THE STOMACH.

AT first I wished to have made a distinction between disorder and disease of the stomach; but one of these appears to me to lead, when neglected, so much into the other, that I shall speak of all under one head.

There are also two modes of describing the different diseases: one is pathologically, which leads to obscurity, some pedantry, and much difficulty in the adaptation of remedies; and as my only object is practical advantage, I prefer the second, which begins with what is obvious, and proceeds with what is difficult and obscure to the observation in general.

I proceed, then, to speak of by far the most obvious

and most distressing symptom in these troublesome disorders, though often not present in the most serious ones—viz. pain in the stomach.

The most obvious form of pain in the stomach is after a known cause—too large a meal, or a debauch. In such a case natural efforts cure or throw off this part of the malady. In this first case either an emetic simply, as hot water or infusion of chamomile, which immediately relieves the distress; or the classical mode of gaining a fresh appetite, or where such remedies are disagreeable, rhubarb and peppermint, or nitre and soda in pimento water enable the stomach to bear its load, and stimulate the overjaded horse to his last stage successfully. But these are trifling, common, and obvious remedies for obvious causes of pain.

Pain is often felt after the slightest meal; and even when, from fear of taking it, little food is swallowed, the empty stomach still suffers pain.

This first and principal case is accompanied by heartburn, occasional rising of hot acrid fluid into the mouth, and great loss of appetite. These symptoms arise from too great a proportion of acid being generated in the stomach; which reacts on the nerves of that organ, and intense sensibility is the consequence. Where the knowledge of this has been neglected, I have seen cases in which the symptoms exactly resembled those of cancer, and were accompanied by the greatest emaciation. The absence of fulness, or any kind of hardness in the epigastric region, alone gave hopes of recovery.

The exact nature of this acid in the natural condition of the stomach has been stated by Magendie and Berzelius to be the lactic acid.*

In diseased states of the stomach there appears to be no doubt, from the experiments of Dr. Prout, of the presence of hydrochloric acid, and in some conditions of the stomach in large quantity.

The present state of this question I subjoin in a note† from my friend Dr. Bence Jones, Physician to St. George's Hospital.

* Magendie, *Précis Elémentaire*, p. 11.

† In 1785 Carminati first observed the acid reaction of the digestive fluid.

1800 Werner confirmed the observation.

1824 Prout proved the presence of hydrochloric acid during digestion and in indigestion.

1826 Tiedemann and Gmelin found, by irritation of the stomach, that acid was secreted; chiefly hydrochloric acid. They found also traces of acetic acid; and in the horse they found also butyric acid.

About 1830 Berzelius states that the acid reaction of the contents of the stomach is chiefly from hydrochloric acid; and the acids next in importance are the lactic and butyric. He concluded, from his own experiments, that lactic acid existed in all the animal fluids, either free or combined.

1844 Liebig shewed that this conclusion was not correct: that there was no lactic acid even in milk until it began to decompose; and this he shewed to be true of other animal fluids.

1845 I observed that when much acid is secreted by the stomach the urine is found to be alkaline. The excess of acid in the stomach was hydrochloric acid; and the free alkali in the urine was fixed alkali, and not ammonia. In extreme cases the alkalescence lasted for four hours. As the free acid was absorbed from the stomach the urine became acid, and this reaction increased until it was intensely acid to test paper.

Thus, then, in health and disease, hydrochloric acid is liberated in the stomach. Acetic acid is sometimes present in small quantities, and perhaps lactic and butyric acids may occasionally be found. Phosphoric acid has not hitherto been proved to exist in the gastric fluid.

The progress of animal chemistry leads to the expectation that many more

I remember being greatly struck, more than twenty years ago, by a case under the care of the late Dr. Pearson. The patient was a middle-aged woman, who suffered from constant pain, and vomited every thing taken soon after swallowing it. She was very thin, and even, on examination, some of those gentlemen about the hospital most conversant with disease thought they could perceive hardness about the pyloric orifice. Much was proposed of counter-irritation, and medicines to produce absorption, when the aged physician, after inquiry, simply ordered a saline draught, with twenty grains of calcined magnesia, two or three times daily. The patient very speedily recovered, and, having gained flesh and strength, some time after left the hospital.

But not only does a secretion of acid in the stomach, beyond what is necessary for digestion, produce such symptoms, but it causes, by a sympathy the course of which I am unacquainted with, great irritability in the action of the heart, which becomes quick, intermitting, or most irregular; and the patient, if surrounded by

organic acids will be found to be present in the stomach in disease. Starch and fat are two of the three great constituents of the food of man, and each gives origin to a long series of organic acids; the last of which in either case is carbonic acid, the product of respiration.

The varying circumstances of disease render it probable that in disorders of the digestive organs many of the intermediate acids may be produced: that although in the state of health the starch passes readily into carbonic acid and water, yet in the state of disease lactic acid, acetic acid, and formic acid may be produced. So also one or many of the fatty acids will most probably be found to result from indigestion. Thus butyric, caproic, and caprylic acids, closely related to each other in composition, are not unlikely to be present in the secretions of the stomach in disease.

anxious or ignorant people, speedily imagines he has disease of the organ of the heart.

Dr. Baillie has stated that he was constantly consulted for inordinate pulsation in the epigastrium; and notwithstanding his large practice, he never met in his whole life but with three examples of aneurism of the cœliac artery.

Sometimes the symptoms are not so much referred to the heart as to the arterial system; there is strong pulsation in the epigastrium, strong pulsation in the arteries throughout the body; and if the patient be examined, this inordinate action will be recognised at some distance from the patient when placed in an upright posture.

And yet all these apparently alarming symptoms are cured by the regular administration of antacid medicines with sedatives, or alkalies with rhubarb, soda, and calumba root.*

Pulveris exigui jactu compressa quiescant.

Where pain is the most obvious symptom, without heartburn or vomiting, it may be believed to arise from the stomach being thrown into irregular contraction; the best remedy, in my experience, in such a case, is the combination of the trisnitrate of bismuth

* Pulv. Rhei, gr. vj.

Sesquicarb. Sodæ, gr. xv.

Pulv. Rad. Calumbæ, gr. iij.

Pulv. Cinnam. C. gr. ij. M.

Fiat pulvis ex cyatho aquæ ante prand. vel h. s. sumend.

This is the formula which I use with the greatest success. It should be taken either before dinner or at bed-time, and continued regularly during at least a fortnight.

with magnesia*. The former of these remedies, first introduced by the late Professor Odier of Geneva, was found so useful on the continent, that in 1815 the Emperor Alexander presented the physician with a diamond ring. It is highly useful in all painful spasm arising from disorder in the intestinal canal, and was employed almost exclusively in the spasms which occurred in the cholera at Moscow in 1831,† in the Hospital of the Preobatzinski Guards, and, as was recorded, with great effect.

Another formula, less effectual in my opinion than the former, is given in a prescription for the hydrocyanic acid of Scheele, combined with an alkali, as—

R Acidi Hydrocyanici Scheelii, \mathfrak{mij} .
 Sodæ Sesquicarbonatis, gr. v.—x.
 Aquæ distillatæ, $\mathfrak{3x}$.
 Syrupi, $\mathfrak{3ss}$. M.
 Ft. haust. ter in die sum.

Often after such a treatment the distress disappears, the pulsation ceases, the heart acts regularly and uninterruptedly, and all regains its usual course.

In other cases it happens that all this is accompanied

* The following is the formula which I use:—

Trisnitratis Bismuthi,
 Magnesiæ Ustæ, aa. $\mathfrak{3ss}$.
 Pulv. Tragacanth. C. $\mathfrak{3j}$.
 Tere intime et adde
 Aquæ fontanæ, $\mathfrak{3iss}$.— $\mathfrak{3ij}$.
 Syrupi, $\mathfrak{3ss}$.
 Ft. haustus 4tis horis sumendus.

† At the period in question, I was Secretary of the first Board of Health, which had its sittings at the College of Physicians. The fact I relate from despatches which passed through my hands.

by costive bowels, the tongue is loaded, and there is a yellow tinge in the eyes. Here a mercurial is wanted, and the cure should be commenced by one or two brisk doses of calomel, with scammony and Extr. Colocynth. Co.; and after this an alterative dose of blue pill should be taken every alternate night for a fortnight, followed on the succeeding mornings by neutral salts with magnesia, in peppermint water, sufficient to move the bowels at least twice.

Where the complaint is of a less acute form, producing occasional distress, lassitude, headache, want of appetite, and heartburn, and only occasional pain in the stomach, a course of a powder which, by constant repetition, and for several weeks immediately previous to the principal meal, and which acts by diminishing the secretion of acid, may be preferred. (See note, page 4.) But where the pain has resisted this treatment, and the emaciation is very great, so as to give alarm lest there should exist organic disease, as of fungus or cancer, the best remedy is a grain of opium thrice daily, the bowels being kept open by means of injections; the food being animal principally, and in *small quantity*.

The following is an example:—I visited, about three years ago, a poor Italian, who had been affected by pain after taking food, accompanied by vomiting. He had the sallow hue of organic disease, and was greatly emaciated. He had had much medicine, mercurials, purgatives, and the like, which could do little good, as they were immediately returned by vomiting. I recommended simply a grain of opium morning and

evening, and food in very small quantity at a time, chiefly milk, arrow-root, and broth. No purgative but by enema was permitted.

In a week I found him to be greatly recovered, and in a month he exhibited few signs of illness; in another month he appeared to be improved in strength, and left England for his native country.

This was a case of over-secretion of acid in the stomach.

It occasionally happens that such a state is premonitory of a gouty attack.

About two years and a half ago, a young French nobleman applied to me, from Paris, on account of violent pain immediately after taking food, of whatever kind, without vomiting. I recommended the bismuth mixture: it appeared to relieve; but, as the complaint was unsubdued, he put himself under the care of a distinguished physician, M. Cruveilhier, of Paris. His diet was restricted to a very small quantity, and of the simplest kind—chicken tea, mucilaginous drinks, &c.; and his regimen to the daily use of the warm bath. This system, with the mildest laxatives, did not produce relief, and he came to England. When I saw him first I greatly feared, notwithstanding his youth, that organic disease was established. No food was taken, either fluid or solid, without its being immediately followed by great pain; the tongue was white, but not loaded, neither was it too red nor dark, nor too dry, but the emaciation was extreme, as great as in the advanced stage of disease of the pylorus in the ordinary state of that disease. I examined very carefully the epigastrium, and both

hypochondria, but could find neither fulness nor hardness in either of these parts.

I recommended him a grain of opium thrice daily, and the use of enemata.

After four days he was able to bear food in small quantities without pain. In a fortnight he ate with sufficient appetite, but I still urged him to go on with the treatment. When he had continued it for four weeks, and had gained flesh and strength in a most remarkable degree, gout appeared in the feet. From this time he recovered; and although his digestion occasionally worries him after an imprudence, he has entirely regained his health, strength, and spirits, and has now been many months married.

The next morbid condition of the stomach is what is called pyrosis, or water-brash. The patient brings up, once or twice in the twenty-four hours, from four ounces to nearly a pint of clear water, tasteless, in the great majority of cases, sometimes with a saltish taste, but without pain, and only preceded by a gurgling sound felt below the scrobiculus cordis. Now this is either the symptom of a very slight or a very serious disease of the stomach; and yet how often have I seen it treated with mercurials and black doses, until the aggravated symptoms in the one instance, and the presence of severe disease in the other, brought the practitioner to his senses.

In the first instance, simple over secretion in the stomach occurs in people who feed much or exclusively on vegetable food; occasionally in women whose stomachs have been weakened by the sympathetic

vomiting in pregnancy ; and occasionally, but more rarely if unaccompanied by organic disease, in spirit-drinkers.

The cure in this milder case is easy. Gr. v. of Pulv. Kino Comp. given three times in the day, and the bowels kept open by enemata or aloetic purgatives, speedily cures the disease, especially if combined with Rhubarb, &c. &c. and a diet principally consisting of poultry, butcher's meat (once in the day), eggs, potted meat, curried food, and weak brandy and water as a beverage. A blister is often applied to the stomach, in the first instance, with success. It is not, in its simple form, a very common disease in this country ; but when it does appear, it is very speedily removed by this treatment : but if calomel and purgatives are prescribed under the idea that the liver is diseased, such cases become greatly protracted, both as to time and severity.

But unhappily the presence of water-brash is not unfrequently the commencement of a far more serious disease—of fungoid disease of the stomach—a complaint distinguished from true scirrhus by its occurring at an earlier period of life, and by its being accompanied with much less pain, and often by no pain at all. Pathologically it differs from scirrhus by much additional structure being formed, while scirrhus is that thickened and indurated condition of the coats of the stomach which ends in ulceration without fungoid growth. In fungoid disease, the complaint grows rapidly, and large, very large, tumors may be found in the stomach on examination ; when in scirrhus, no hardness is felt until emaciation has nearly reached its limit.

This complaint will be in progress for years, so slight is the distress, ere the attention of the patient be called to it, before examination of the parts. In Vol. 14 of the Medico-Chirurgical Transactions, I have related three cases of this disease, where the disorganization of the stomach reached an enormous extent by addition of structure without any pain or vomiting being present to cause suspicion of disease.

It is always incumbent on the physician, when there is water-brash, and especially if the patient be upwards of thirty, to inquire particularly as to the state of the epigastrium : of this the following is an example. I might quote three nearly similar in one year.

A lady, between forty and fifty, consulted me on account of dyspeptic symptoms, in June 1843. She had no appetite, and every thing taken into the stomach gave her uneasiness. The food was not returned by vomiting ; but it created uneasiness, and there was very slight water-brash occurring occasionally. The pulse was quiet ; the tongue white ; the urine natural, and in good quantity.

I repeatedly asked her if, by putting her hand on the pit of the stomach, she could discover any hardness or lump. The answer was, certainly not ; that her attention had been drawn to it by my observation, and she was sure all was as usual. The use of the Hydrocyanic Acid, and keeping the bowels open by Decoct. Aloes Comp., seemed greatly to relieve her, and the patient recovered sufficiently to leave London, and remained, according to her subsequent account, as well as usual during the winter and following spring.

At the latter end of the spring 1844, she sent for me again, with the same dyspeptic symptoms increasing her distress, and accompanied by an extreme *sense of debility*. The remedies which appeared to have been successful before, now entirely failed, and I requested a consultation. Dr. Watson met me; went over the symptoms, and again and again asked her if there were any swelling or hardness at the pit of the stomach. "Certainly not. Dr. S. has asked the same question often with the same reply." The patient became worse. About three weeks after this meeting, she had a fainting fit, and when summoned I found her in bed. This enabled me to examine the abdomen, and greatly was I shocked to find, not one tumor, but a number of tumors, varying from the size of a pigeon's egg to that of a hen's egg, occupying the whole epigastrium and the left hypochondrium—fungoid disease! I went home, resolving nothing should ever deter me from examining the stomach, especially before giving an opinion, in future. The disease proceeded; the pain was greater after taking food, and now occasionally sickness, in very small quantity, but shewing traces of that escape of blood by exudation which is called coffee-ground vomiting was present. The only severe suffering, as in the great majority of such cases, arose from a sense of extreme weakness and sinking, until death closed the scene.

It is extraordinary, though no less true, that such cases are generally preceded by great and intense mental anxiety, even though all external circumstances might be in favour of the opposite opinion. One of

the very worst cases I ever saw arose in the case of a gentleman who lived very handsomely, and brought up his family with an expensive education. When he died, it was found he had not left enough even for the smallest wants—even for the existence of his family. All, all was gone! It has been my misfortune to witness several similar cases, accompanied by nearly similar causes of distress.

A short time after the death of the patient in the case last recorded, I was called to see a gentleman who had for many years worked very hard, to the exclusion of exercise or variety, &c.; for he had a large family and small means. He had worked hard from early in the morning till late at night. He felt distress after eating, and consulted a physician. The physician did not examine the stomach externally; but, perhaps guided by the patient's sedentary life, and seeing him only as a morning patient, recommended him mercurials and purgatives frequently repeated. When called to him only a few weeks after, I particularly inquired if clear water came frequently into his mouth. It was replied in the affirmative; and afterwards he said it was not painful, but it had troubled him for *several months* previously. On examining the epigastrium, I was greatly distressed to find a lobulated tumor, extending throughout the whole left hypochondriac and epigastric regions, to two inches below and to the right of the umbilicus. Pain was felt here in the back. The patient was so much emaciated, and the disease so greatly advanced, that it became necessary to tell his wife that her husband

laboured under an incurable and increasing disease—“ a kind of cancer of the stomach.” The friends could not believe this possible ; they would not believe it ; nor, until it was confirmed by another physician of extensive practice, could they be brought to believe it. The patient expired in about three weeks from this time.

In the above case I blame no one. I only wish to shew with what apparently insufficient symptoms real and incurable disease may exist, and to impress the necessity of accurately examining the stomach in all similar cases.

The next most obvious and most frequent case is where the pain in the stomach or at the scrobiculus cordis is indicative of gall-stone ; either the passage of a gall-stone alone along the hepatic duct, the cystic duct, or the ductus communis ; or even where there are a very large number of these concretions in the gall-bladder, so that, during the operation of digestion, any change made in its situation produces tension of the gall-bladder itself. The pain, in either of these cases, is similar. There is most violent pain at the scrobiculus cordis, shooting through to the back ; pain as of grinding the part is felt. The pain is so intense that it appears absolutely impossible that it should long be borne ; nevertheless, the pulse is never quick, and often preternaturally slow, as 50 or 60 in a minute, rarely above the latter. Sometimes this intense pain is accompanied by vomit-

ing, but not always. However severe, it ordinarily disappears suddenly, as if by magic, and the patient, allowing for languor, is nearly as well as usual.

When the calculus has entered the duct, whether it gradually proceeds forward or falls back, the pain is succeeded by a greater or less degree of jaundice, which immediately marks the disease; then, of course, the excretions are pale, often as white as chalk, while the urine is of the colour of porter; and this state continues until the concretion escapes into the bowel. Still there may be obstruction from a gall-stone, and subsequent intense pain at the pit of the stomach, tingling or itching of the skin, vomiting, while the urine is of the natural colour, and the *fæces* with the usual proportion of bile. In this case the calculus is in the cystic duct.

When Physician to the Asylum for Recovery of Health in the year 1827, I attended an old French lady, nearly 80 years of age, who suffered from frequent and most painful attacks of pain, exactly resembling a paroxysm from the presence of gall-stone. The terrible pain, sickness, languor, slowness of pulse, succeeded by nettle-rash, were followed by universal itching over the surface; but all the evacuations were natural, and, above all, the *fæces* were well coloured by bile. I suspected the concretion to be in the cystic duct; and so it proved. After death, a biliary concretion, of the size of a Canary bird's egg, was found in the cystic duct. It was extremely light, and consisted almost entirely of cholesterine, crystals of that substance forming the entire centre. It is now in the Museum of St. George's Hospital.

Or the symptoms may arise, and be very severe, from the gall-bladder being distended by one or more large biliary concretions. In this case also there is no jaundice.

A lady, about 54, suffered dreadfully from attacks of this nature. She was of a very irritable temper, and bore pain with very little philosophy. In order to relieve the pain in the back, she had applied bottles heated to so great a degree as to burn the muscles of the part to which they were applied. Erysipelas appeared, consequent on the burn, spread rapidly, and the patient died.

In this instance all the ducts were pervious ; but in the gall-bladder were four large gall-stones, impacted one on the other like bricks, and distending the whole organ. None of these could ever have passed through the natural passages, except by adhesion of the gall-bladder to the bowels and subsequent ulceration ; but it proves that the symptoms and violent pain may be produced without any obstruction of the ducts themselves.

Pain in the stomach also precedes a much more serious complaint. The pain generally continues, at times, from year to year, and occasionally receives little sympathy from surrounding friends. It is, however, not frequent in the class of life where good food, rest, and the luxuries of life, are attainable ; but oftener in persons, especially women, broken by servitude, or distressed by wayward affections. The end is generally

sudden. This is simple ulceration of the stomach going on to perforation.

Even in this last case, the liver or the pancreas applied over the aperture become glued to the orifice by adhesive inflammation, and danger, for the moment, is averted; or another morbid condition arises, which I shall explain hereafter, which delays, in a remarkable manner, the fatal event. Sometimes the ulceration, before arriving at the perforating state, erodes the branch of an artery; then comes vomiting of blood, occasionally to a very great extent. Still, such cases are rarely mortal in this stage of the disease.

I have seen many pints of blood vomited under such circumstances without any real danger, as it appeared; but, after death, a healed ulcer in the stomach, which, in its ordinary state, had involved a small branch of the superior coronary artery, was discovered.

The ulceration in question occurs principally in the smaller curvature of the stomach, and most frequently on its posterior surface: hence the pancreas has been most frequently found, from its position, assisted by adhesive inflammation, to have arrested immediate danger.

The chronic ulcer of the stomach is not to be distinguished by any known signs, unless vomiting of blood, which has followed long-continued symptoms of pain and distress in the stomach, has taken place. Up to this time it is easier to say what the disease of the stomach is not, than what it is.

The patient has long felt pain after eating, without the symptoms of the presence of acid which I have

before described. At one time one species of aliment, at other times another, seems to aggravate the symptoms. Solid meat is generally felt to be most distressing ; and the state of emptiness is the state accompanied with the least pain, as in a case related by Mr. Travers in the Transactions of the Medical and Chirurgical Society. Suddenly the symptom of pain becomes accompanied by constant vomiting and a painful burning of the epigastrium, with extreme pain in the opposite vertebræ ; the pulse becomes very small and weak ; and cold extremities and shrinking features denote the approach of death, which occurs in a few hours after the aggravation of the symptoms : and on examining the body, perforation of the stomach,—simple nearly circular ulceration, without any thickening of the edges, without any inflammation of the surrounding mucous membrane,—is seen. In such cases the patient has not lost flesh, as in the case of cancerous or fungoid disease. No examination, however careful, can distinguish before death either hardness or fulness ; nor has the appearance of the tongue shewn by its bright redness that serious irritation is established in the stomach ; neither does the external surface of the body present the straw-coloured appearance, arising not only from the absence of red blood, but as if the vessels were filled with size.

None of those symptoms appear to be present which are so characteristic of malignant disease ; probably because the ulceration occupies a small portion of the stomach : the surrounding mucous membrane has all the appearance of being in a healthy condition.

I was called two years ago to see a servant of all

work, about 20 years of age, who was dying with all the symptoms of perforation. She had long complained of pain in the stomach; but went about her usual laborious occupations. Suddenly, after eating a *very large meal* of salted beef, she exclaimed, placing her hand on the region of the stomach, that she was shot! Violent vomiting ensued without much of the contents of the stomach being brought up. She became insensible, though still giving signs of pain when pressed with the hand on the epigastrium. She died in about five hours after the attack. In the morning of that day she had appeared to be perfectly well.

But it has been said that, even after perforation of the stomach, it by no means necessarily happens that the patient immediately dies. In two cases which occurred to me in St. George's Hospital, one survived the perforation five months, and another twelve days, after the most violent symptoms of peritoneal inflammation. As such cases are undoubtedly rare, *i. e.* cases in which persons have lived after perforation of the stomach, the secondary process which prevented immediate death has never been described. I subjoin the two following cases:—

Margaret Humphries, æt. 25, a servant, was admitted into St. George's Hospital, Jan. 16, 1843.

She stated she had been attacked two days previous to admission with sudden pain in the epigastrium and left hypochondrium, extending over the whole abdomen, accompanied by vomiting, which had, however, ceased. The countenance was sunken, and expressive of extreme distress, and there was pain over

the whole abdomen, which was very tense, and extremely tender to the touch. Examination was immediately made in reference to hernia, but none existed. The bowels were open from medicine; the respiration hurried; total absence of sleep; pulse 124, weak and small. Notwithstanding the exhausted state of the patient, the obvious presence of peritoneal inflammation, and the recent nature of the attack, indicated venesection. She was ordered to be bled to sixteen ounces, and to take three grains of calomel and half a grain of opium every four hours; and an enema, with an ounce of oil of turpentine, was ordered immediately.

17th.—The abdomen still swollen, but not painful on pressure. Pulse 112, more distinct; dejections watery; tongue dry; no vomiting since admission; blood drawn buffed, and cupped in the smaller vessels; much exhaustion.

Applic. Hirudines, xij. abdomini;

Postea admoveatur Fetus;

Repr. Enema Terebinthinæ et Pilulæ.

18th.—The relief very great; the abdomen could bear pressure, and was soft. The patient expressed herself to be “greatly relieved, and without any pain in the belly.” The pulse 112, and no vomiting.

As the bowels were now very loose, and the want of sleep chiefly complained of, an injection of starch, with forty drops of laudanum, was ordered. The pills omitted.

19th.—Suddenly the patient complained of most acute pain in the epigastrium and left side. The pulse

was so small and quick as scarcely to be counted, with excessive palpitation of the organ of the heart.*

The pills were again ordered, and a blister applied to the left hypochondrium and lumbar region. By these means the pains were greatly relieved. The dejections were now quite of a healthy character, though loose, and except in the left hypochondrium the abdomen throughout could bear pressure. In this part the pain continued and extended to the chest, with occasional syncope and impossibility of breathing with the left lung; there appeared to be no doubt that inflammation had extended to the pleura and pericardium. All symptoms of inflammation of the peritonæum had disappeared.

The pills were continued, and warm fomentations followed by a blister applied to the chest, gave great relief. Aphthæ soon appeared in the mouth. The pills were omitted, and light nourishment given. For two days she appeared to be relieved, and did not complain of any acute pain, but there still existed the excessive rapidity of the heart's action, with impossibility of breathing with the left lung. Without any increase of symptoms she died almost instantaneously on the morning of the 27th, ten days after admission.

The post-mortem examination was conducted by Mr. Prescott Hewitt.

Body pale, but not emaciated.

Abdomen: The left part of the transverse colon, and the anterior margin of the left lobe of the liver, as far as the suspensory ligament, were firmly united to

* These are the notes from my Hospital Case Book.

the anterior parietes of the abdomen ; by these adhesions the peritoneum lining the left hypochondriac region and part of the epigastric was converted into a closed sac, which was filled with a large quantity of foetid pus, mixed with some of the contents of the stomach. This cavity was lined by a thick layer of lymph, of a greenish colour. The left lobe of the liver being enlarged, covered the greater part of the anterior surface of the stomach. On lifting up this portion of the liver, the contents of the stomach oozed out of a small aperture, which was partly blocked up by adhesions between the two organs. This aperture communicated with an ulcer, which had destroyed all the coats of the stomach. The ulcer was situated about an inch below the middle part of the lesser curvature, on the anterior wall of the stomach ; its size was a little less than that of a shilling, and its shape was oblong. The vascularity of the mucous membrane in the neighbourhood was but slightly increased. Another small ulcer was found at the lower part of the posterior wall ; this ulcer had merely destroyed the mucous membrane, the margins of which were firmly united to the subjacent parts. The other parts of the mucous membrane were healthy. The convolutions of the small intestines were glued together by recently effused lymph. In several places the mucous membrane of these intestines presented a great increase of vascularity, but there were no ulcers. The liver apparently healthy in its structure.

Thorax : The lower part of the left lung was united by a thick layer of recently effused lymph to the dia-

phragm ; the lung itself was healthy. The cavity of the pericardium contained a large quantity of serum, mixed with recently effused lymph of a peculiarly white colour. Heart healthy.

Sarah M'Quid, æt. 20, servant of all work, admitted into St. George's Hospital Nov. 23, 1842.

She had been ill several months, was pale and emaciated, and complained of severe pain in the right hypochondrium, and around the umbilicus. The pulse was quick and weak ; the tongue very red and glazed. She states she had taken much purgative medicine without relief. The dejections from the bowels were loaded with dark-coloured bile. Severe pain was experienced on pressure about a finger's breadth beneath the false ribs on the right side ; but there was present neither fever, cough, expectoration, nor vomiting. She lay with most comfort, and always slept on the left side.

The treatment consisted in the application of leeches and cupping to the right side, with great relief. The internal remedies consisted principally of calomel and opium, or calomel and conium, at bed-time, with a sufficient quantity of Soda Tartarizata every alternate morning, to keep the bowels open. The diet consisted of milk and arrow root, and tea.

On the 3d of December, she expressed herself to be greatly relieved. No pain could be felt on pressure in any part of the abdomen. The pulse was still quick and weak ; but she said she had no pain, and was up and dressed in the ward.

On the following day, the 4th, she was attacked suddenly with most violent palpitation of the heart; the pulse was too quick to be counted, and was, from its weakness, scarcely to be felt; the skin cold. For the first time cough arose, accompanied by expectoration of dirty purulent matter, unmixed with mucus, and excessively fetid. At this time she could only lie on her face, with her shoulders elevated. A blister was applied to the right side, and diffusible stimulants administered, and also a little wine.

There appeared to be little doubt that abscess of the liver was discharging itself through the right lung; but still the absence of two symptoms threw some doubt over the case—the entire absence of bile in the expectoration, and no vomiting having occurred at any period of the case.

The matter being spit up freely, the patient's state improved. She lay again on the left side, and had quiet sleep. The nitro-muriatic acid was given internally, apparently with relief, and the patient asked occasionally for food. On the 8th, without any increase of symptoms, and after having taken some breakfast and spoken cheerfully, she suddenly expired.

Post-mortem examination :—

Body emaciated.

Abdomen : Transverse colon, liver, and stomach glued together by old and firm adhesions. In endeavouring to separate the stomach from the liver, the parietes of the former gave way. On the posterior surface of the stomach, towards the great curvature, was a large ulcer which had completely destroyed the

different coats, the deficiency of which was made up by the pancreas adhering to the circumference of the ulcer: the edges of this ulcer were bevelled off, and perfectly smooth. The surface of the pancreas, which thus formed a part of the stomach, still retained its granular appearance; but it was covered over by a thin smooth membrane. The pancreas itself was healthy. The remaining part of the mucous membrane of the stomach was somewhat thickened, but otherwise healthy. The upper surface of the right lobe of the liver was partially adherent to the diaphragm. These adhesions completely formed the walls of an abscess of the size of a child's head, which was bounded above by the diaphragm, below by the liver, and on either side by the union of the diaphragmatic and hepatic layers of peritoneum. The matter contained in this cavity, after ulcerating through the diaphragm, had made its way into the substance of the right lung, the under surface of which was firmly united to the diaphragm. Several of the larger bronchial tubes communicated with the matter, a large quantity of which had been brought up a few days before the patient's death. The cavity of the abscess, which was nearly empty, was lined by a thick membrane, presenting, on its internal surface, a honey-comb appearance. A smaller abscess, perfectly distinct from the larger one, was found in the upper surface of the right lobe of the liver, close to the anterior margin, and limited by the falciform ligament. This abscess was filled with pus. The substance of the liver, with the exception of being slightly condensed, was healthy.

Thorax : A small quantity of serum in the cavity of the right pleura. The right lung, with the exception of the adhesions to the diaphragm, and the ulcerations of the bronchial tubes through which the matter had escaped from the abdomen, was quite healthy. In the left lung were several patches of grey hepatization.

In the treatment of such cases, when there is real reason to suspect so serious a disease, soothing remedies seem to be indicated. The bowels should be carefully kept open by enemata, so as to prevent any acrid medicine coming in contact with the ulcer; and occasional blisters to the epigastrium may be expected to be useful.

Where the existence of the complaint is more clear, from the preceding pain and the subsequent vomiting of blood, a case which I have frequently seen, I know of no remedy so uniformly successful as the oil of turpentine taken internally.

Whether in the Seaman's Hospital, to which I was physician in 1827, or in St. George's Hospital during eighteen years' most assiduous duty, or in private practice, I have never seen a case which did not recover for the time being from this practice. In three cases where the patients had suffered from this disease, and the hæmorrhage had entirely ceased under the use of the oil of turpentine, healed ulcers, into which small branches of arteries could be traced, were observed on the surface, I believe, in all, on the posterior surface of the stomach; but in a great many more cases, where the patients are still living after a lapse of several years, and where of course the case cannot be proved,

the disease gave way to the use of the oil of turpentine. Not only were large quantities of blood vomited in such cases, but large quantities passed half digested from the bowels, under the form of thick matter, resembling soot in appearance. I do not remember to have witnessed a single case in which this treatment has failed; and notwithstanding that the medicine is very nauseous, it rarely happens that it is rejected by vomiting.

I am not, however, to be understood to say that hæmatemesis always arises from ulceration of the stomach; that it does so in some instances has been proved; in others it may arise from simple exudation, or from vicarious menstruation; occasionally from diseased liver; and occasionally, as shewn in some plates published by the late Dr. Armstrong, from fungoid or cancerous disease of the stomach. Of these last, as a cause of hæmorrhage from the stomach, I do not remember to have seen any case except those in the work alluded to.

In the works of old and eminent physicians, I have read that the most useful remedy in the treatment of ulceration of the stomach, was the balsam of Locatelli, a composition consisting principally of oil of turpentine and red Saunders' wood.

The formula I have seen most useful was—

Ol. Terebinth.

Ol. Ricini, aa. ʒij.

Vitell. Ovi, q. s.

Aquæ Anethi vel Cinnam. ʒviij.

Syrupi, ʒj.

Tinct. Zingib. ʒss. M.

Ft. haustus, omni mane vel alternis auroris sumendus.

Another remedy, which has been used as more agreeable, though I think less successful, is contained in the following formula—

℞ Acidi Sulphurici dilut. ʒj.
 Infus. Rosæ Gall. ʒxij.
 Syrupi Mori, ʒij. M.
 Ft. haustus 4tis horis sumendus.

Others have had recourse to the use of the *Acetas Plumbi*, from its well-known anti-hæmorrhagic qualities :—

℞ Acetatis Plumbi, gr. iij.
 Extr. Opii, gr. j. M.
 Ft. pilulas, 4tis horis sumend. donec levior fuerit hæmorrhagia.

None of these have, in my observation, approached the certainty of relief which is to be obtained from the turpentine.

In two remarkable instances which I witnessed, the recovery appeared to be owing to the use of the *Liquor Stypticus Ruspini*. Two drachms of this solution were given every four hours, in a case where several pints of blood had been brought up by vomiting, and with complete success.

Some discussion has arisen among medical men as to the prevalence of simple ulceration of the stomach in females rather than in males.

When writing the preceding cases I consulted all those examples immediately within reach—those in the *Medical and Chirurgical Transactions*, the cases by Dr. Abercrombie, those in the *Archives Générales*, and in the *Dublin Transactions*: I found the number of males and females afflicted with this disease nearly equal. Much more lately, Mr. Taylor, in a very

remarkable and interesting paper in the Guy's Hospital Reports, has related upwards of nine cases which occurred exclusively in young women.

This, of course, is a startling fact; but, on the contrary, Mons. Cruveilhier, in his large work on Pathological Anatomy—the largest and most important ever published—has named, and in some instances given plates of, a very large number of cases in which the proportion of men in which this disease has occurred is to those in women as 14 to 2. [See the 10th livraison.]

1st case, a man, æt. 23.

2d case, a young man.

3d case, a man.

4th case, a man, æt. 72.

5th case, a man, æt. 34.

6th case, a man, æt. 29.

7th case, a man, æt. 56.

8th case, a man.

9th case, a man.

10th case, a man.

11th case, a man.

12th case, a man, æt. 73.

} cicatrices.

In the 20th livraison is an appendix to the observations on the 10th part, in which five other cases are mentioned.

1st case, a woman, æt. 60.

2d case, a man, æt. 36.

3th case, sex not mentioned, but apparently a man.

4th case, a woman, æt. 57.

5th case, a man.

Mr. Prescott Hewitt, of whose skill and accuracy as late prosector and curator of the Museum at St. George's Hospital no one can speak too highly, allows me to say, he has examined twelve cases of this disease, in which eight occurred in men, and four in women. I have seen eight cases, of which five were in men and three in women.

After all these statistics, will the contest not resemble the dispute about the gold and the silver shield—each being attached to what he has himself seen?

I only give the figures from the best authorities I can collect: I believe myself there is no preponderating difference in either sex as to predisposition to this terrible disease.

It is clear that in all these cases much will depend on diet. Where milk will agree, milk with rice, or with small quantities of biscuit, or mixed with arrow root, is the best diet which can be recommended during the attack. But occasionally milk disagrees; it should then be given with equal parts of lime water, or soda water; or asses' milk substituted for cows' milk; or very small quantities of chicken-broth or chicken-jelly given, or what is called "*crème d'orge*,"* or various nutritious but very light food—sago, tapioca, or the like. This is of course during the severity of the disease, accompanied by acute pain or vomiting of blood.

It is quite impossible to prescribe what must be left to the arrangement and resource of the physician and

* "*Crème d'orge*" appears to consist of chicken, veal, or white meat, beaten very small, and passed through a fine sieve.

the nurse in convalescence or recently restored health. And this leads me to consider a subject on which I can scarcely help incurring blame — viz. Diet in general.

Every individual will tell you nothing can be more easy. Avoid wine, and beer, and stimulus, says one : “ Imitate Cornaro ; bring your diet to consist of milk and biscuit twice daily,” says a second. No, says another (and this is a very popular opinion), eat well-cooked tender mutton, without vegetables, daily ; and take plenty of exercise, but *no vegetables* ; and drink very little ;— and many a jaded stomach, after nights of repletion and confinement to hot rooms, or rest by day to repair jaded spirits by night, has received benefit from such a system ; but is it to be raised into a system of diet ?

What says the latest theory ? Quantities of water during the day ; application of great alternations of moist heat and cold, to make the skin act ; wholesome diet, even with condemned vegetables, and exercise, and all will go well.

Another discards sugar from his category of the wholesomes ; and yet, as a nutritious aliment, it is the luxury of thirty millions in France, and the principal food on which young children are weaned in the south of France,—and no visible disease ensues. “ Ah !” said a lady to me at Geneva, in 1820, “ voici ce grand gaillard,” a beautiful child of seven months ; “ il vient d’être sevré ; il boit trois grandes verres d’eau sucré dans la journée.” It may be, and it appears that it is, injurious in certain diseases of the kidneys or urinary organs : but why apply this exclusion generally ?

Other persons insist, when living in London, and never quitting their arduous duties, that they are free from all impeachment of irregularity, provided, as they say, they only eat meat—beef, mutton, and poultry; never sweets, entremêts, jelly, cream, and the like; never eat pastry, not even apple-pie, and live in a delightful dream of civic anchoritism. These persons take no exercise, sit up late, often in heated rooms; their hearty meal of meat overcharges their blood (happy had it been divided with a little fruit jelly, or baked fruit, or even the anathematised apple-pie); they get heated, feverish, pains in the joints, pains in the back, and at length gout,—wondering where it can come from, as they never indulge!

In speaking of health, the great advantage is to be sought from regular exercise, and in London life, if possible, on horseback; and great moderation. But if general rules be difficult, what shall we say to partial ones—to the unhappy hypochondriac, who sees poison in all that is wholesome, and has some book on diet to look at *à la derobée*, to sustain him in his imaginary distresses? Is it a cause or an effect, that persons dreadfully sensitive about what is wholesome are always weak and sickly?

If we watch, as I have watched persons on this subject, where is the agreement? or, what is more, from what is our experience to be derived? Some stomachs cannot bear nor digest animal food, as beef and mutton. To these, dishes cooked in the French fashion, where food is much subdivided, can be taken without pain, and with comfort. To some, fish, even those

which are thought to be most injurious, give no pain; salmon, eels, mackerel, are all eaten without trouble, where mutton chops and beef steaks give pain. In another case the first named aliments are productive of sickness, pain, bad taste in the mouth, and all the annoyance of what is called bilious derangement.

If we may judge of the experiments on animals, or from those who have had the power of voluntarily rejecting food, after the digestion of some hours, the digestibility of animal food is the following:—The most easy* is pork, the next mutton, then beef, and lastly veal. In general the meat of young is considered less digestible than that of older animals.

In general the glandular parts and viscera of animals are considered easy of digestion. Liver, tripe, especially the latter, has been recommended in weak digestion. Sweetbread, so tender of digestion in many persons, is the object of absolute prohibition by some medical men; while white soup, very well made, is nutritious to some, and produces bad effects in others. Oysters, among the most nutritious and agreeable articles of diet, are proscribed in some states of the body; and shell-fish, pronounced by Boerhaave to be singularly nutritious, in some cases produce nettle-rash, &c. &c. &c.

How, then, are we to judge? I have been much struck by the facility, in illness, and in delicate constitutions, with which food much desired by the stomach is digested. Should not what I may call the instinct of this viscus be a little more consulted? and if there be a strong feeling or desire on this point, may it not

* See Magendie : art. Digestion.

be advantageously gratified in defiance of arbitrary rules? Every day, in extensive practice, we may be answered in the affirmative!

Unhappily writers on this subject recommend from their own feelings or prejudices. A healthy hearty man recommends what he finds keeps himself in excellent health; while one with a weaker stomach cannot help conveying his ideas on the subject, which are very different. A man accustomed to the fare of a hot country like India, cannot manage the diet of a cold country, where great and active exercise is taken. The endeavour to bring an Indian to the wholesome food of an English farmer, would be to enact the old story of the man who brought his horse to live on a straw, and—he died.

The whole question resolves itself, except in actual disease (fever, bowel complaints, violent cough, expectoration of blood, consumption and diabetes, &c. &c.), into one small word,—moderation. To man in health, and in many diseases, all is comprised in that one word, moderation. Take what your inclination shews you to be desirable when in health, only avoiding what is manifestly injurious from your own experience. In illness nearly a similar rule may apply. A man in a fever could not be made to eat beef; and it is only in convalescence, or recovery from recent illness, that a man must be obliged to listen to lessons of absolute self-negation!

I have followed the natural course, as far as the mind can be carried from one immediate subject to

another, and still I am obliged to go back again, and, according to the view which I have taken up, proceed with a symptom, and work upwards to the causes. It may be wrong, but it is that view which best interests students, and it is their welfare, that is, the *practical advantage* of students, *which I have the most at heart*.

The most obvious disorder of the stomach is vomiting; it is often the most distressing symptom—often of organic disease, often of mere distress, often of irritability from parts at a distance.

But it is not only in diseases of the grave nature described before this digression that vomiting is a predominant and important symptom; it occurs as one of the leading marks of several diseases, and some disorders in the animal economy; and it is not an uncommon circumstance for a practitioner to acquire great credit by arresting inordinate vomiting, where others have failed. As this paper is purely practical, I shall make no apology for considering the subject.

Some persons have possessed the rare power of rejecting the contents of the stomach when they pleased, and have turned what in itself is a very equivocal accomplishment, to advantage, in experiments on the comparative digestibility or indigestibility of various articles of diet. Among the most distinguished of such persons was the late M. Gosse, of Geneva.

The simplest and severest forms of vomiting, divested of danger, and symptomatic of disorder produced by a natural process, is the vomiting attending the early months of pregnancy. This is sometimes so severe as to threaten the life of the mother; but how-

ever frequent and continuous this distressing symptom may be, it never, I believe, ends fatally. It is inconceivable to what an extent it sometimes affects the patient ; the following is an example in the severest form :—

In the end of May, and in June 1839, I visited, in the country, a lady who suffered from constant vomiting. How life had been maintained during the preceding three weeks was hardly to be accounted for. Every thing taken, even in the smallest quantity, and of the mildest kind, was rejected. The patient was reduced to a state of emaciation resembling the last stage of pulmonary consumption. She had consulted several medical men without relief, and had gone through the various remedies recommended ordinarily to arrest sickness. As pain was also complained of, and a yellow hue of the skin present, I recommended (under the suspicion of the presence of gall-stone) a grain of opium thrice in the day. This was retained, and served for many days for food and medicine. As there was an infant of between two or three months in the room, the idea of early pregnancy did not occur, nor was the possibility of such being the case adverted to by her husband. The bowels were relieved by enemata of tepid water, so as not to irritate the stomach by purgative medicines. In a few days grated meat was taken in small quantities, and subsequently arrow-root with a little brandy. From this time I was informed by letter she was gently recovering ; and at Christmas, or a little before, I heard she was safely delivered of twin children.

Since that period I have never been consulted for cases of inordinate vomiting without an apparent cause, without inquiring very accurately as to the possibility of impregnation; and in more than one instance the inquiry has been the first reason to call the attention of the patient to the real cause.

In the present instance the suffering of the patient must have commenced within a month of the pregnancy having taken place.

At a more advanced period, where this symptom is very troublesome, I have seen it cease after one or two small blood-lettings.

Constant vomiting is also often seen, especially in females, after much distress produced suddenly, or after a very trivial injury, such cases being purely dependent on the nerves of the stomach, which sympathize with the nervous distress in other parts, are easily cured. An effervescing draught, with from three to eight minims of laudanum, given every six hours, will often, after the first doses, cure the distress.

℞ Sulphatis Magnesiae, ʒj.

Magnesiae Carbon. ʒss.

Aquæ Menth. Sativæ, ʒx.

Tinct. Opii, mʒij.—vj. M.

Ft. haustus 4tis horis sumendus.

Another form is the following, not in an effervescing state :—

℞ Ammoniae Sesquicarb. ʒj.

Aquæ fontanæ, ʒjss.

Syrupi, ʒj.

Succi Limonis recentis, ʒss. M.

Ft. haustus 4tis horis sumendus.

In many illnesses unconnected with serious disease

of the stomach or bowels, the same irritability will occur, and will equally as a symptom be suppressed. Even though symptomatic of a burn, or a serious and sudden injury of a part at a distance—nay, when even the constant vomiting arises from organic disease in the abdomen, as from stricture or malignant disease, the remedies which arrest functional derangement of the stomach will relieve for a time this great affliction. I have seen this comfort arise during several days to the patient under the most unpromising circumstances. If the vomiting has continued for any time, a blister to the *scrobiculus cordis*, or mustard poultices, will often cut short the habit acquired, or the sympathy with distant parts.

In long-continued vomiting, where all has failed, half a grain, or a grain of opium, made into the smallest size, but always of the newest extract, is very successful.

I have seen, in the most obstinate cases, confining the patient to equal parts of milk and lime-water quite successful, when all other remedies had failed.

But vomiting occurs in hysterical patients; and this is the most difficult to cure, for often at the foundation of all there is a trick. I will not enter on this subject, but the number of cases of this description is very humiliating. Interminable vomiting, without corresponding loss of strength or health, without any manifest distress of organs at a distance, is present: I have witnessed such cases in private, where medicine was taken to produce the distressing symptom, and create alarm and anxiety, and interest, in all around. I have seen

it in hospitals, where one patient stole the digitalis of another patient, for the purpose of producing the sickness and depressed pulse which excited wonder and astonishment. But this portion of disease (for disease it is), is only hinted at at present ; I shall have occasion to speak largely on the subject hereafter.

It is, however, to the condition of vomiting without any known cause, from disease in the body, that a comparatively recent remedy has been prescribed, and in many instances with success—creasote, the spirit of tar. One or two minims of this thrice daily have been found to quiet the incessantly irritable stomach of hysterical females.

No one can be more satisfied than I am, after more than a quarter of a century in the daily exercise of my profession, of the existence of cases of hysterical disease, in which vomiting is one of the principal symptoms ; but I must warn medical men not to be carried away by this fact, but always in young people, especially young women, to look on this constant or frequent vomiting with much suspicion, especially if it be combined with obstinate constipation. It may go on for weeks, and even years, as symptomatic of diseased brain.

A young lady, apparently in perfect health, consulted by her parents many eminent physicians in London, about her utter loss of appetite, and her constantly returning her food when taken without pain or distress. The bowels were obstinately constipated, and never moved unless by the use of drastic purgatives, or stimulating excitants. Pulse 80, and always regular. She went into society, to balls, and the amusements of

her age and station. Under these circumstances she occasionally complained of sudden giddiness, but it immediately passed away, and was not remarked. All who saw her looked upon her disease to be hysterical; and it was certainly very singular that she should reject her food often, and yet retain her usual health.

After a time strumous swellings appeared on her throat. Every assistance was sought at home and abroad. Suspicion at one time arose of a tuberculated state of the peritoneum; but all remedies proved in vain. After a very few days of acute distress, but several years of the symptoms stated, the youthful patient died.

The disease disclosed was a tuberculated state of the arachnoid membrane of the brain.

For this one case twenty would have occurred of simple functional vomiting from very slight causes, or from hysterical invention, with almost exactly similar symptoms. Still such cases do occur, and they are mentioned here, that physicians, very frequently contemplating the *ignis fatuus*, may not lose their judgment, but continue to estimate all such cases on their own merits.

After repeated attacks of loss of sense, with occasional attacks of epilepsy, the mind has recovered, but the stomach remains irritable, and refuses animal food, indeed, loathes any food: this state of stomach is sometimes the result which remains; the disease of the brain being either cured, or parts having accommodated themselves to the mischief *existing*, by which irregular actions are arrested, the irritation at a distance goes on—the cause having ceased. How often in the phenomena of disease—

In two cases with the late Sir Henry Halford, I saw the best effect from offering to the stomach savoury meat—the jelly of meat in very small quantity, and regularly, thrice in the day. The stomach began to acquire force; and this, in one instance, occurred in a lady now living, who, after three attacks of epilepsy, supervening on long coma, the last having taken place two months previously, was in the condition mentioned. Not only was the vomiting arrested, but the patient, who has passed seventy years of age, has survived her illness eight years, and enjoys more health than most persons at her period of life!

Vomiting is also a prominent symptom in some cases of phthisis pulmonalis,—nay, in some rare instances, I have seen it so severe, as to draw the patient's attention and that of his friends entirely away from the real disease.

Vomiting in phthisis pulmonalis, occurring almost always after coughing, if it arise early in the disease, is the proof of a severe and rapid form of it; if late, it betokens that large collections of matter are locked up in the lungs, that is, have not yet found an outlet through the larger branches of the bronchi.

I have had occasion often to point out this symptom during life, and to illustrate its cause after death, to the pupils of the hospital. I will mention one case in illustration, which case also represents many others similar in their progress and pathology.

A youth, æt. 20, of a strumous habit and fair complexion, with much talent as an artist, was seized, after having undergone a mercurial course, with symptoms

of the phthisis pulmonalis of the languid kind ; that is, the pulse was not very quick, nor the hectic paroxysm severe, nor had it been preceded by spitting of blood ; but there was constant cough, with little expectoration, the hair fell off, the emaciation was very great, the nails became adunc, and there were regular morning sweats present. Sarsaparilla, followed by gentle tonics, and afterwards quina, with a mild and nutritious diet, and medicine to allay the cough, appeared at the end of two months to have effected a very material change. The sweats had disappeared, there was increased strength, and it was proposed to the patient's anxious friends that, to avoid the March winds, he should be removed to Hastings. The last consultation, before this plan was to be carried into effect, took place between the late Dr. Nevins-son and myself. I remarked—" Well, he is wonderfully improved to all appearance, but I never can think this change otherwise than delusive so long as he continues to vomit* at the conclusion of a fit of coughing," " It is a very disagreeable symptom," said Dr. N., " but it is the only one !"

About eight-and-forty hours after this conversation a vomica gave way in a fit of coughing, and more than a pint of purulent matter was brought up. I say a

* This symptom, in its earliest stages, is for a time controlled, to the great comfort of the patient, by the following formula :—

℞ Extr. Conii, gr. iv.

Ft. pilula bis terve in die sumend. cum haustu sequent.

℞ Liquor Calcis, ℥j.

Aq. Cinnamomi, ℥ss.

Syrupi, 3j. M.

Ft. haustus.

pint, for it nearly filled one of the large finger glasses used at table. The patient died four days after this event, the more violent symptoms of hectic immediately following the discharge.

Among the numerous pupils at the hospital who have attended my practice and clinical lectures, there are many who must remember how frequently a similar event has been expected, from the prevalence of vomiting as a symptom in phthisis pulmonalis.

There is also, in young women especially, a disease very rare but very dangerous, and in its progress most alarming. This is the disease formerly called "*passio iliaca*," or the iliac passion. In it the whole peristaltic motion is inverted. There is constant vomiting, which proceeds to so great an extent that *fæces* are brought up; not liquid *fæces*, or only such as might be diffused through a liquid and vomited, and mistaken by the smell, but *formed fæces*. Such a condition not unfrequently exists in hernia, or where internal stricture of the bowel is high up; but this is not the case to which I allude. On the contrary, the real iliac passion is not solely symptomatic, but occasionally an original disease; and as it was described by ancient physicians, so does it appear now.

It is happily in this restricted form very rare. I have seen only three cases in my remembrance; two in private life, and one in the hospital. I will relate the first which I attended with the late Dr. Warren about fourteen years ago.

The patient was a young lady, of about 17 years of

age, most carefully brought up. She suffered principally from flatulence, but to a degree almost inconceivable; so much so, that it often rendered it impossible she could go into society. The catamenia were regular, but attended with pain. She was attacked, in the spring of the period which I refer to, with obstinate constipation and constant vomiting. The period had been passed a short time previously. The vomiting became extreme, with a small hard pulse, but without peritoneal or abdominal pain. In consultation with Dr. Warren, bleeding was had recourse to, as in all cases of suspected inflammation. It did not relieve the symptoms, and the blood was only slightly covered with a grey buff, which did not indicate or encourage further depletion. The state of the patient was imminent. Dr. Warren told me a few days afterwards that he had lost all hope.* On the matter vomited floated portions of fæces, so much formed as to leave no kind of doubt of their nature; and this kind of sickness rendered the patient quite miserable in addition to her other sufferings. I remained several nights in attendance, and at last succeeded in allaying the irritation in the following manner, all medicine having been vomited previously:—Two grains of calomel, made up with a grain of the soft and recent extract of opium (without gum) into the smallest pill possible, was given; and when the spasm or endeavour to vomit returned, the

* A few days after our meeting, I passed Dr. Warren in the evening while just getting into his carriage. "Whence comest thou, Gehazi?" said he. I explained I had just returned from the case in question. He would scarcely believe that the patient was safe, and expressed his doubts in strong terms.

patient was obliged—I had best say forced—to take half a bottle of soda water in a state of active effervescence. The expansibility of the gas, and the downward impression in swallowing, had the desired effect. After three successive doses had been taken in this way no vomiting occurred, and, as far as my memory guides me, after the fourth dose a relief was obtained by ordinary efforts downwards, and no more sickness ensued. I need not add that all relief which had been found useful under ordinary circumstances, even calomel in powder, and the usual remedies to relieve sickness, had been had recourse to previous to the practice which I have here described.

The patient is living, and is the mother of a large family.

I have seen two other cases of this kind, both of which have recovered.

The iliac passion is, then, real, and not solely, as it has been occasionally suspected, the effect of a blunder of the physician in overlooking hernia or intus-susception.*

Vomiting of a very peculiar nature accompanies a much more common disease, but one frequently con-

* In speaking of the effect produced by a strong impression downwards in constant vomiting, I may relate that, in the obstinate vomiting from cancer of the stomach, some relief has been obtained by a medicine which, of all others, acts in determining the action downwards; viz. of mercury in its metallic form. In the practice of the late excellent Dr. Cholmely, of Guy's Hospital, I twice saw him administer solid mercury, not to force an obstruction, but with the view of obviating the distressing vomiting by determining strongly the peristaltic motion downwards. In both cases it produced the temporary effect and short-lived comfort expected from it. The dose was four ounces of crude mercury. I do not advocate this practice.

In a very obstinate case of vomiting, also from organic disease, great relief was obtained *temporarily* from a scruple of calomel, prescribed by the late Sir H. Halford.

founded with different organic mischief—different in symptoms and in the structures which it attacks—tuberculated accretion of the peritoneum, by no means uncommon in young people, especially females, and not very uncommon in youthful adults.

In these cases, in children especially, there is great emaciation ; the belly is much swelled ; and on passing the hand over it, irregular masses are found, varying from the size of a nut to that of a small egg. Occasionally there is fluid, not so much as in ascites, but the bowels are painful on pressure, and tumors are felt as if floating in the fluid. At other times the abdomen is felt to be quite hard, the recti muscles are stretched, and the whole abdomen is greatly swollen. When this is the case in children, I have scarcely met with a single instance where it was not dismissed with, “ You see it is a case of mesenteric disease.” Nay, I have met with men of great experience, who had never seen a case of it proved by post-mortem examination. Now it does happen that mesenteric disease is very rare, and the disease in question by no means so ; in fact, in hospital and private practice, where I have had occasion to verify the disease after death, this occurs at the least, in proportion to mesenteric disease, as five to one ; and, I believe, in a still higher ratio.

In adults the disease is sometimes confined to the omentum ; and after death a large mass, like a pancake, is found to have formed, covering the contents of the abdomen, or rolled up, forming a mass which presses on the lower portion of the liver or arch of the colon.*

* These deposits are invariably formed on the cellular side of the peritonæum.

In other cases, the whole peritoneum covering the bowels is studded with specks like warts, from the size of a pin's head to the size of a hazel nut, and the convolutions of the intestines are glued together by a similar deposit. When this goes to a great extent, it is often accompanied by a peculiar kind of vomiting—a green so dark, that it is only to be compared with that which the sea acquires at great depths—a blue as intense nearly as that of indigo; deep green when regarded in one way, blue in the other. Often also in adults, the bowels being glued together, the peristaltic motion is very greatly restricted, and then vomiting of fæces not unfrequently occurs.

The peculiar vomiting, however, which I have described, is so remarkable, that when it does occur, it is diagnostic of the disease. The first case, a most remarkable one, I witnessed under the care of the late Dr. Cholmely, at Guy's Hospital, in 1824. I have seen fifteen cases of this peculiar secretion since that time. I have, however, seen many cases of the disease, where this symptom was not present. All I mean to infer is, that when this symptom is present, it is diagnostic of the disease.

Hence, however, it is absolutely necessary I should not be mistaken. I do not mean that green vomiting is diagnostic of such a disease. In fact, in any vomiting which continues for a length of time (like sea-sickness), where the contraction of the abdominal muscles is frequent and of long duration, the matter brought up is, first, of the contents of the stomach, then bile, and then the contents of the gall-bladder mixed with the

mucus of the stomach; this last is of a green colour, and often, in symptomatic vomiting (in any disease long continued), this appearance will present itself. It is known in our notes as "porracious vomiting," or leek-green sickness, from its colour; but this last differs materially in colour, consistence, and danger, from that which I have described.

The disease of which it is a symptom was, I believe, first alluded to by Boerhaave, but has been described at great length, and with singular accuracy, by Dr. Baron, of Cheltenham.

The extensive destruction of parts manifested after death, would lead to an opinion of the utter incurability of such disease in any of its stages; but I think I can prove that this is not the case almost to demonstration. In the year 1835, I attended with Mr. J. Merriman, of Kensington, a young lady, (Miss J. B.,) thirteen years of age: at first her disease was considered to be dropsical; the abdomen was much enlarged, with distinct fluctuation, but on further inquiry, in the left hypochondrium, a little below the umbilicus, and in the right iliac region, bunches of small hard bodies could be felt, like marbles glued together, but moveable in the abdomen. The catamenia had never appeared. She had been ill about a fortnight when I saw her, and had been treated with the usual remedies for dropsy.

As there was some tenderness about the abdomen in the situation of the tumors, leeches were several times employed; two grains of the Iodide of Potassium in distilled water were given twice a day, and a drachm of the Unguent. Iodidi Potassii, rubbed carefully into

the abdomen morning and evening ; a light nutritious diet was ordered, the bowels kept carefully open ; and the use of the tepid bath, and rest, enjoined. About two months had elapsed, this course having been continued regularly, when I visited her again, and, to my surprise and pleasure, found that the tumors were scarcely perceptible, the general health much improved : there was no fluctuation, and the abdomen was in a nearly natural state.

The patient went into Devonshire, amused herself in pure air and with moderate exercise, and when I again saw her, no vestige of the complaint existed. She had up to this period (two months) continued the regular use of the medicines. She is now living, and in perfect health.

The following year I was summoned to see her sister, Miss M. B., a year younger than herself, and of a much more delicate frame.

The same symptoms presented themselves, and the same treatment was adopted, and with the effect of diminishing the severity of the disease for a time. At the end of six months, however, she was evidently getting worse, and her strength giving way : pulse 120 ; thirst and sickness were present ; loss of appetite accompanied increased swelling, hardness, and tension in the abdomen. The patient, (it being winter) was removed to Hastings, and placed under the care of a gentleman, since deceased, of great practical experience. I mean no disrespect to his memory, when I say I was surprised to hear he had never met with such a disease, and that he had

told my patient's friend that it was simply *tabes mesenterica*, or glandular disease of the bowels !

The patient gradually declined, and an opening formed in the arch of the colon, from adhesion between the bowel and the parietes of the abdomen, which added much to her suffering.

The post-mortem examination was conducted by Mr. H. Charles Johnson, in the presence of Mr. Merri-man and myself.

June 24, 1838.

The body was much emaciated, the abdomen tense and hard, and immediately above the umbilicus was seen a small rounded opening, through which feculent matter escaped. On removing the abdominal muscles, the serous cavity of the peritoneum was found to be completely obliterated.

The liver, stomach, small and great intestines, were so matted together by strong adhesions, that they were with the greatest difficulty separated from each other. The adherence was equally intimate with the abdominal parietes, so that the intestines were frequently wounded in the attempt to expose the various viscera. Immediately behind the umbilicus was found a pouch or cavity, filled with *fæces*, the boundaries of which were of a dark and sloughy character, and formed by the abdominal muscles in front, and the surface of the intestines behind. An orifice communicating with the great intestine allowed the *fæces* to pass into the pouch, and from thence through the external opening.

The peritoneum was thickened, of a pearly white-

ness, and had on its cellular surface a number of dark spots, surrounded by a zone of minute blood-vessels. When examined more closely, each spot appeared to consist of a tubercle, having a nearly black envelope or cyst, containing a yellow cheesy matter. Here and there, in the mesentery, were found tumors of a larger size, but of the same character, with the exception of the dark covering, which had become dense and white. Two or three of these latter were of the size of a hazel-nut.

The mesenteric glands were not affected with the same disease, and those close to the loins were of a healthy appearance. The parietal and visceral portions of the serous surface of the peritoneum had become so united to each other that it was necessary to remove the whole of the abdominal viscera for the purpose of making the examination.

The heart was natural; the lungs were light coloured, but free from tubercles, and perfectly healthy.

Experience has convinced me that in this form of disease mercurials are injurious—as injurious as they are efficient in the simple adhesive inflammation of serous membranes. In order to complete this part of the subject, though travelling a little out of the record, I will relate a case, of great interest, of chronic inflammation of the peritoneum, treated successfully by mercury, where iodine in all its forms, so useful in tuberculated accretion, failed.

A young nobleman, æt. twenty-six, came from the country, to place himself under my care. in the year 1841. He had been in bad health for several years,

with great irregularity of the bowels, loss of flesh, loss of appetite, a quick frequent pulse, and wandering pains in the bowels.

These symptoms had greatly increased immediately previous to my seeing him, and his condition at that time was very precarious. He was very thin, and was so weak as to be obliged to be carried from his bed-room to the sitting-room; the bowels acting often ten times in the day, very thin evacuations, and the abdomen swollen, with distinct fluctuation, but more in one part of the abdomen than another, shewing partial adhesions of the peritoneum. His state was so serious that I represented to his nearest relations my fear of the fatal tendency of his disease, in case they might desire to have a consultation. This was declined.

The use of the salts of iodine, and friction with the ointment, evidently increased the symptoms; and not being able to discover any of the hard bodies which distinguish tuberculated accretion, I considered the disease to have arisen from simple chronic inflammation of the peritoneum. The difficulty in the treatment was increased by the state of the bowels, rendering saline diuretics inadmissible.

The patient was put upon a course of calomel and opium, (three grains of calomel and one of opium thrice daily) with a diuretic draught (*Infus. Armoraciæ C. ʒx. ; Sp. Armoraciæ Comp. ʒj. ; Sp. Ætheris Nitrici, ʒj. M. ft. haustus.*

At the end of a week the symptoms had become so much less urgent that I felt sure that my diagnosis was right; very light but very nutritious diet was

given.* It is a remarkable fact, but by no means an extraordinary circumstance, that the patient persisted in this course during more than two months, without his mouth becoming affected, or any evident effect from the medicine, except the bowels having become regular, and the fluid in the abdominal cavity having disappeared.

The pills were continued twice in the day, with the draught during a third month, when health appeared to have become re-established. Five years have elapsed, and no illness has occurred, nor any weakness to render the cure imperfect.

There is a peculiar and rare kind of vomiting, at least the cause of it is rare, which ought not to be left unnoticed. It is when the patient takes food and retains it for several days: at the expiration of three or four days, quite suddenly, all that which had apparently been taken in the preceding days is brought up.

In the interval of the vomiting the abdomen is large, and on gently shaking the body, fluid is perceived, from

* In cases of great loss of strength, it frequently occurs that the food most restorative is of the animal kind, but in a fluid form. Beef-tea, in this instance, taken almost as a beverage, was of the greatest benefit.

Such considerations may appear below the attention of the physician; I, at least, do not say so. For the sake of my younger friends in the profession, I subjoin a recipe for making beef-tea, which I purchased from the French cook (and a first-rate one) of a nobleman:—

Take two pounds and a half of *lean* beef, cut it in small pieces into three pints of water in an earthen pipkin; let this *simmer*, *never boil*, until the liquor is consumed to a pint and half: then strain carefully. The liquor should be transparent, and of the colour of dark sherry wine, and may be drank warm or cold: it ought to be entirely free from fat or grease.

the peculiar noise being elicited which occurs when a half empty vessel is shaken: not effusion into the peritoneum, nothing like it, but noisy fluctuation.

In these cases, after death the stomach is found enormously distended, having gradually expanded; while disease, either at the pyloric orifice or lower down in the duodenum, has prevented the fluids which have been swallowed from passing by the natural passages.

About five years ago, I visited, in consultation with Sir Charles Clarke and Dr. Watson, a lady, æt. above seventy, who suffered in this manner: first she had symptoms of dyspepsia; next symptoms of obstruction: no remedy effected a passage: very large injections were given and retained, but nothing more satisfactory than little almond-shaped masses of fæculent matter from the cells of the colon were obtained. The vomiting was occasionally quite absent, but such a cessation was certain to be followed by renewed and violent discharge from the stomach.

At length the disease proved fatal, and on opening the body the stomach was found to be enormously distended, and occupying nearly the whole abdomen: the duodenum so compressed as almost to forbid any passage through it, in consequence of specific disease affecting the head of the pancreas, and gluing confusedly together the pancreas and parts around to the liver. The same cancerous disease existed in the liver.

I am indebted to Dr. Watson for his note of the post-mortem examination. It is remarkable that this

lady's brother died some years previously, and in that case I learnt from the eminent person* who conducted the post-mortem inquiry, that the stomach was enormously distended, owing to a complete obstruction arising from scirrhus of the pylorus.

In speaking of vomiting as a principal symptom of disease, I must not omit its remarkable occurrence, as indicating or accompanying the passage of a calculus through the ureter.

Here the distinction of symptoms is of the greatest importance, inasmuch as this disease has often been mistaken for inflammation of the intestines, and constant and irrepressible vomiting has kept up the alarm.

The distinction is to be found in the fixed pain in the direction of the ureter, most frequently about midway between the umbilicus and the spine of the ilium, but still more in the slow soft pulse, notwithstanding the intense pain which accompanies the disease. In inflammation, the universal pain over the abdomen, the patient carefully keeping the trunk of the body at rest, the pulse being small, hard, and very quiet, the alteration of the features, well distinguish it from the acute fixed pain, the constant vomiting, the throwing about of the limbs, the numbness in the thigh of one side, the patient seeking the half recumbent posture, which appears to relieve the pain, which constitute the form and the picture of renal colic. The sickness, however, in females especially, is often frightful. I have seen it,

* Sir B. Brodie.

almost without ceasing, continue for eight days consecutively, but there was no fever, no constipation, no wasting of the body; and a loaded state of the urine, or the passage of a small calculus, soon put a stop to the symptoms.*

I have spoken of a peculiar coloured vomiting, which, when it is present, distinguishes the disease known by the name of "tuberculated accretion of the peritoneum;" but in the most frightful disease with which modern physicians have become acquainted, Asiatic cholera, the vomiting which characterises it is entirely devoid of colour, like thin gruel, or water in which rice has been boiled; and where it is tinged with bile it is considered to be a favourable symptom.

Various modes, in the hands of different practitioners, have been used to stop this discharge or correct its quality. In India, it would appear that calomel and opium most frequently succeeded. (See a paper in the Medical and Chirurgical Transactions, communicated by the late Sir Gilbert Blane).

In the disease which visited Europe in the year 1830, and England in 1831, great good was expected from evacuating the stomach early by a mustard emetic; others found more advantage from very small doses of Epsom salts, Æss. and Magnesia, gr. v. with two or three minims of laudanum in a table-spoonful of

* It is always to be borne in mind, that no one, in cases of inordinate vomiting, is qualified to give a decided opinion unless he has ascertained the non-existence of hernia, and that there is no reason to suspect stricture in the intestines. This is the first duty.

water, every three or four hours or oftener,—a mixture which has been found very useful in inordinate vomiting in the diseases already mentioned, and also in the dysentery and diarrhœa of India. It is very remarkable, that the very remedies which, on the first onset of the disease, were utterly useless, were found very beneficial as the time became longer and the disease progressed.

In all the northern countries, and in our own, the same proportion of deaths occurred during the first month of the invasion of the disease. This diminished greatly as time advanced, and towards its disappearance the proportion of those who recovered, to those attacked, bore a very large ratio to the mortality which happened in the first month.

In what used to be called cholera, and is by some now called cholerine, which occurs in the height of summer from sudden chill, improper food, or travelling, the vomiting is of bile or matters strongly tinged with bile, accompanied by dejections of a similar nature. Here, almost always, the mixture of three grains of calomel with a grain of opium will arrest the disease.*

When I resided on the continent, very few families travelling in the heat of summer, and exposed to some of the causes just enumerated, escaped suffering from this disease. Retiring to bed apparently well, the

* Even in this form of the disease, and especially in aged people, the vomiting occasionally assumes the appearance of rice water, and is accompanied by the other severe symptoms of the Asiatic disease.

In 1825, I saw a very remarkable case of this with Dr. Kerrison, and this year unhappily I have seen another.

patient is roused by constant and irrepressible sickness, with or without diarrhœa, almost always with some degree of looseness of the bowels. If a pill of three grains of calomel and one of opium is taken immediately, and repeated in six hours, it rarely happens that the patient is unable to proceed on his journey.

When able to stay a day or two, the traveller should take every morning a small quantity of neutral salts in water, and use the warm bath. This I have seen occur so often, that I cannot doubt of the efficacy of the plan. About three years ago, a young gentleman, to whom on his leaving England I had given this prescription, went on his return home to take leave at Padua of a friend, whom he found extremely ill, with vomiting and purging of bilious matter, suffering from extreme depression and natural alarm. He immediately recollected the prescription, but alas! his baggage was gone. As he had not forgotten the proportions of the medicines to be used, accompanied by another gentleman, better skilled in the language, he went to a pharmacien to obtain it, but the name of calomel and the size of the dose appalled the mind of the Italian. He exclaimed he was forced to make up poison, and with the greatest difficulty it was procured. Two doses arrested the disease, and the patient returned to England fully satisfied that he owed his life to the prescription procured from his friend.

For many years I have been in the habit of giving this prescription to friends of mine, or members of my family, when on foreign tours, and very often they

have had occasion for its use: never has any evil resulted, nor has it failed of its efficacy in a single instance. To my knowledge, in the course of the last twenty years, the number who have benefitted by it is very great.

In the preceding pages I have endeavoured to describe the various diseases of the stomach shewn by leading and particular symptoms; arguing from the symptoms the most obvious to feeling and observation, onwards to the diseases of structure indicated by such symptoms.

All the diseases to which I have alluded are of what is called a chronic kind (cholera excepted), that is capable of existing a long time without any acute symptom which indicates certain destruction of life. They are all (except after long duration, when great changes take place) unaccompanied by fever; and perhaps those who have read so far, though a few pages, will have said, all this is very simple, but where is "*la gastrite*," a complaint which made twenty years ago a great noise in Europe, when every disease was attributed to inflammation of the mucous membrane of the stomach, together with inflammation of the mucous membrane lining the intestinal canal?

At this period, which I well remember, books were published in numbers beyond present belief on this subject.* I am not speaking here about the diseases

* When I had the honour of being medical secretary of the Medico-Chirurgical Society, I well remember on one occasion the Council rejected no less than twelve volumes of closely printed paper on gastrite and subacute inflammation of the mucous membrane; the librarian having already purchased many works on those subjects.

of the small intestines, to which M. Broussais' observations in reference to fever really related. They were the result of his practical observations, and I feel now, after long subsequent experience, as I did then, that his observations on what has since been called follicular ulceration of the small intestines was one of the great discoveries of the age. I should rather say, perhaps, the result of extensive inquiry, than a discovery.* Morgagni had shewn it; Spigelius, according to Hoffman, had shewn it; but it was known only in insulated examples.† The world was quite ignorant that a fever dependent on or connected with (as each chooses) ulceration of the glandular structure of the intestines, of a most serious and extensive character, existed, until M. Broussais, from his service in camps in low situations during Napoleon's wars, first made it generally known.‡

When any man makes a discovery, great latitude must be allowed to his subsequent inclination to generalize. Inflammation of the mucous membrane of the latter portion of the small intestines, and especially in its glandular structure, undoubtedly existed in a most devastating form of fever, and what

* Surely a man who makes known throughout the civilized world the existence of a most fatal disease, either occasioning, or accompanying fevers, has nearly as much right to the honour of a discoverer, as one who first observed and consigned it, undistinguished, amid many other far less important cases of disease.

† See Hoffman, *De Febre Hemitritæo*.

‡ During the three winters which I passed in Edinburgh, in 1816, 1817, 1818, although clinical clerk during the winter of the second year, and although the wards were full of fever, in fatal cases the head and chest and large viscera were all carefully examined, the interior of the small intestines never.

was more natural than to transport this in a less degree to all parts of the intestinal canal, lined by a mucous membrane.

Hence his theory that all chronic disease was the result of inflammation of these membranes, thence their thickening, their consolidation, and their ulceration ; abscess, scirrhus, and the like, even tubercular deposit, were only the result of different conditions, arising first in irritation, next inflammation, and at last all the subsequent changes he believed to be modifications of these two first elementary processes.

How many in practice will remember in England, for years past, when a patient was asked what he or she complained of,—“ Oh, sir, I have suffered from the mucous membrane, or it is my mucous membrane !” *

I have given, I hope, due praise to the French physician who has the undoubted right to the improvement in our knowledge of certain and most fatal cases of fever which he described ; but he carried the same explanation to diseases of the stomach, and whenever any one complained of pain in the stomach with want of appetite and general distress, he assumed inflammation to be present, and applied leeches to the epigastrium. If the disturbance continued, leeches were repeated : the patient was kept low on gum and water and demulcents.

The principal cause, undoubtedly, in the opulent

* The manner in which patients entirely ignorant of pathology talk about their mucous membrane, often reminds me of the story of a maid-servant asked by her mistress what she thought of the sermon. “ Oh ! ma'am, I did not quite understand it, but it was beautiful ; there was that good and blessed word, Mesopotamia, in it !!!”

classes of society, for various functional diseases of the stomach, is over eating, the patient being deprived of exercise. To make such a stomach abstain for several days from receiving only the mildest nourishment, would of itself cure, in the same way in which a lady I remember who lived to be ninety years of age succeeded when she prescribed for herself. Doctor, I have had admirable health ; never took physic in my life : whenever I fell ill, I took no food except a little gruel for three days. The old lady knew (wise woman !) her real foible.

Still the chronic form of inflammation of the stomach is the one to which the attention of physicians has been so greatly directed, as the “fons et origo” of every disease under the sun, and the remote cause of all alterations of structure.

I confess I have not seen many examples of this disease ; the disorders of the stomach generally confounded with “gastrite chronique” have been those, early described, from over secretion of acid. But occasionally, from great anxiety, or at some distance of time after severe debauch, I have seen what is considered to be diagnostic of such a state—a very red tongue, with white patches, or a tongue so smooth that it looks as if a hot iron had been suddenly passed over it. Great distress, loss of appetite, and depression of spirits, with a small wiry pulse, and occasional nausea, with great disinclination to be pleased or satisfied, are present ; on pressure there is pain at the scrobiculus cordis. The urine is generally pale and abundant, the bowels confined, and the symptoms are but slightly relieved by purgative medicine.

But all these symptoms, as far as I can learn or observe, are not confined to this condition of the membrane lining the stomach. The pain at the pit of the stomach is equally a symptom of distended liver ; and it is not easy to understand how a viscus supplied by the same vessels as those which supply the liver and spleen can be inflamed even for a short time without these viscera suffering. The stomach may, indeed, suffer from alterations in its peculiar secretions, especially in their chemical composition ; but, that inflammation should occur in a chronic form, without affecting the neighbouring viscera, fed and nourished from the same trunk, seems difficult to believe. In this country such a condition is treated with calomel, in full or at least alterative proportions, or mild preparations of mercury with ipecacuanha and small quantities of opium, followed by neutral salts, as the Cheltenham salt or Tart. Sodæ every morning ; and indeed it is to such conditions that the Cheltenham and Leamington waters are the best adapted ; while, in that form which I have described as arising from over secretion of acid, the waters of Vichy in France are of the greatest service, or the factitious waters of Carlsbad, taken for not a longer time than a fortnight, and in no large quantity ; while to the weak and almost powerless state of stomach, which alternates with indistinct fits of gout, the waters of Bath, in our own country, are, I believe, to be preferred to any other.

To this should be joined a diet of the mildest food, animal and vegetable, which can be given, and in *small quan-*

tity. Riding on horseback, if possible, should be had recourse to : at all events absence from mental occupation, where such a condition can be complied with. Of the application of leeches to the stomach I have seen few examples : if the early symptoms are severe, the tongue very red, the pain constant and distressing, there cannot be any doubt of the propriety of their employment ; but they will disappoint the expectation of the practitioner if he expects more than temporary relief. The application of mustard poultices will give more certain immediate relief, but the use of one or more mercurial purgatives, and subsequently alteratives with mineral waters, and gentle exercise and mild diet, will cure the disease.

In remarking on the difference of practice in England and France, the habits of the people are to be considered—the much greater quantity of animal food taken by our countrymen, the great dilution which constitutes the diet of the French.

We give purgatives, the French laxatives only, combined with large doses of ptisans, from a pint to several pints in a day ; at first emollient and afterwards bitter infusions, which operate by their very bulk, besides the lavements (enemata) of what are thought a cooling or alterative character.

The vast experience in diseases of the stomach and liver, acquired by our knowledge of the diseases of the East, from the occupation of India, where chronic inflammatory diseases exist, has afforded demonstrative evidence of the use of mercurial medicines in such

diseases, while our neighbours reason that an inflammatory disease should not be treated by a remedy which in its natural state acts as a stimulant in an already over excited condition of the part. I can only say, that this disease, so apparently frequent from the French writings, is here very rarely seen, or speedily cured.

I confine myself in these observations to the chronic gastrite of the French school, which in my observation has been always cured by mercurial alteratives and saline purgatives. But I do not allow that many of the affections of the stomach comprised under this name derive their origin from inflammation in any of its forms.

Acute inflammation of the stomach is rare, and, except in cases of drinking enormous quantities of spirits, or from poisoning, is extremely rare.

I cannot consider the chronic ulcer of the stomach which we have before mentioned to be inflammatory, because neither in the edges of the ulcer nor in the surrounding parts, nor in the mucous membrane throughout, are there any appearances of inflammation, redness, or injection of vessels.

In cases of poisoning the treatment is mainly to be conducted by understanding the nature of the poison—if of arsenic, one mode; if of corrosive sublimate, another, &c.

In acute inflammation of the stomach, there is intense pain, and constant endeavour at vomiting; the pulse is quick, small, and very hard. The tongue, at first white, afterwards very red, soon becomes brown and dry. Large blood-lettings are re-

quired early, and then leeches, from twelve to twenty, to the pit of the stomach; a blister ought not to be applied until the symptoms remit, or are greatly diminished. The food principally asses' milk; or barley gruel, with a little milk, should alone be allowed.

I cannot say I have ever seen this disease in its idiopathic state; I have seen it four times in suppressed measles (where the eruption had not appeared on the fourth day of the fever), and twice in small-pox, in which latter disease the stomach (I judge from the appearances after death) is often inflamed*. Where this occurs in an eruptive disease, besides the general and local bleeding, the warm bath is especially indicated.

It is impossible to quit this subject,—observations simply practical on diseases of the stomach,—without alluding to a disease, which personally I cannot say I have ever witnessed, notwithstanding a most diligent observer of post-mortem examinations, and with great opportunities, for more than a quarter of a century. It has been found after death, that the coats of the stomach are injured, nearly dissolved, or at least in a pulpy state; and this condition or change has appeared

* After death in the eruptive state of small-pox, which is now most uncommon, but formerly of nearly daily observation, the mucous membrane of the stomach is found very red, as if injected with sealing-wax; and it is well known that one of the diagnostic symptoms of most importance between this and other eruptive diseases is the pain at the pit of the stomach felt at the beginning of small-pox!

to belong principally to the great end of the stomach, that portion of the stomach in which the principal digestion takes place. This softening was long since observed by the most acute and most careful observer known to our art, Mr. Hunter. He attributed these appearances to the effect produced by the gastric fluid or what was contained in the liquids of the stomach at the time of death; the destruction by a liquid still active in its properties, on parts deprived of their vital power of resistance.

Much discussion has arisen on this subject, and two different kinds of destruction are believed to be the cause of the appearance after death of the solution principally of the membranes constituting the stomach in its greater curvature.

Mons. Cruveilhier, of Paris, the author of the most complete and valuable compendium of morbid anatomy the world has yet seen,* distinguishes these alterations in the stomach into two kinds, the gelatinous and the pultaceous.

The first he believes to be the result of disease, and especially in infants. He describes the diagnostic symptoms to be the following :—“ Mucous or bilious vomiting if the malady attacks the stomach; burning thirst not to be satisfied and quite characteristic; rapid loss of strength; emaciation (even in twelve hours); great

* I do not mean by this observation to diminish the credit of the great Italian Morgagni, or of our English Morgagni, Dr. Bright; but certainly the beautiful delineations of disease in M. Cruveilhier's work render it the most complete one on pathology extant.

prostration of strength ; the face pale and drawn in ; gentle dozing, interrupted by cries and drawing up of the legs ;" the pulse slow and irregular, and cold extremities. These are the distinctive symptoms of the gelatinous softening of the stomach. He recommends a healthy wet-nurse, and when weaned, if sickness occurs often, if the child has constant thirst, gets rapidly thin, refuses all except fruit and drinks, the medical attendant should be alarmed.

The treatment consists in a good nurse, in the antiphlogistic regimen, and in very mild food, if the child be fed ; the use of the warm-bath, and the employment, if there be pain and watchfulness, of very slight opiates with gum (*extrait d'opium gommé*). There is a very beautiful plate, explaining this appearance in adults, fig. 31, *Livraison xx*.

I may be permitted to observe, that all these symptoms accompany the very serious bowel complaints of infants, which used to be comprised under the name of weaning-brash. In such cases there is constant discharge of a pale coloured fluid from the bowels, with a faint smell, resembling that of a poultry yard. The little patient, in twenty-four hours from the commencement of the attack, becomes from a moderate plumpness like an aged creature. The thirst is incessant, and if the disease be not cured, the child dies with symptoms of what used to be considered effusion into the brain. It occurs principally in weakly children, ill nursed, or ill fed. This case has been *well*, and I think *first well*, described many years ago by Dr. M. Hall.

With the greatest respect for this most justly celebrated pathologist,* it does not appear to me that the symptoms of this disease are at all peculiar to the conditions they are believed to represent. They have all occurred again and again in my observation, without the corresponding disease they are believed to designate. In the cases of the disease which I have just alluded to, mercurials do harm. Simple astringents, with very small doses of opiates, cured some very severe cases in my remembrance; but with or without opium, the Ext. Hæmatoxyli had the most marked success among many other astringents employed. The food should be of one kind, and very simple; as of two parts barley-gruel and one milk.

Softening of the stomach after death has been proved by Dr. Carswell to be the result, as was believed by Hunter, of the action of the fluids of the stomach on the recently dead matter; the chemical influence being preserved when vital resistance had fled.

M. Cruveilhier explains that of these two kinds of softening,—the gelatiniform, he considers to be the result of disease; the pultaceous, he believes to be really the result of the cause pointed out by Hunter and others, but put forward most clearly by Dr. Carswell.

In a work like the present, it is impossible to enter minutely into the arguments on both sides. With the greatest respect for the contending parties, I must

* Mons. Cruveilhier.

be permitted to observe, that I have not myself witnessed the changes described; that the symptoms supposed to be most frequent in infants and very young children are indicative of another disease, at least as much so as of the disease in question; and these appearances after death in the stomach are still, in some degree, "sub judice" as to the cause which produces them.

" But however this may be, I will faithfully set down those things which I have hitherto observed, as to the difficulties and intricacies which regard either the history of the disease, or the method of cure, leaving them to be made more clear or more complete by time, the guide of truth."

SYDENHAM DE ARTHRIDITE, p. 1.

II.

ON GOUT.

EXPERIENCE in my profession for more than twenty years has shewn me many cases of Gout in the classes of society where it is the most frequent in its various forms, whether of positive disease or constitutional disposition.

The following remarks contain my observations as a physician, and formerly a teacher, on this frequent and most painful disease: still, to write observations on this subject appears to be the commencement of an undertaking more than ordinarily imprudent.

The disease was well known to the ancient physicians, as I shall often have occasion to mention. In modern times, and in England alone, when I say there are upwards of 120 treatises on this disease (I speak

very much below the real number), does it not appear presumptuous to add to this number, in the hope of saying anything new? I do not know that I can say anything new, but the arrangement of our present knowledge on the subject, our treatment and the reasons for that treatment, are not satisfactorily stated, in my own view of the case, concisely and for practical use. It is to supply this (temporary if it be) want, that having experience on this subject, I undertake the task of making the following observations.

This disease was first known to dissolute society, where good living and indolence were mingled together, and it descended to the offspring of those who indulged; and as indulgence increased with luxury, so the disposition to transmit acquired disease was established. In fact, this disease was principally restricted to the rich and powerful of every age, and hence became the object of interest to physicians, and attracted their attention.

It was well known to the Greek physicians, but their knowledge was transmitted for several centuries through the translations or imitations of their works by the Arabian physicians.

During the night of learning, the caliphs of the eighth and ninth centuries, at Bagdad and Cordova, caused to be translated the Greek manuscripts on medicine which had fallen into their power. These served to maintain the truth of the originals, and little was really gained from them except as preservatives of Greek knowledge, and the histories of small-pox, in the works of Rhazes, and of Avicenna.

The ideal part of Arabian physic has no place here. The use of talismans and bezoars* for the cure of disease—the means held out to an imaginative people to give confidence in their advisers—are objects of curiosity to modern times, but do not contribute to practical knowledge, although similar confidence in a prescription as useless as Bezoars were, has often attracted the sick or the voluptuous. It is not to recover, but to recover as no one else *ever recovered*, which makes a patient the hero of an adventure.

At length came the revival of learning, when Greek literature, and all which remained of Greek physic, known hitherto through indifferent translations, principally among the learned, or concealed in manuscripts in the Benedictine convents, were given by the art of printing to the world.

It so happened, that shortly after this period the most powerful monarch of modern times, the Emperor Charles the Fifth, was a martyr early in life to gout. The son of Philip the Handsome, born at Ghent, the most voluptuous court of the period, might well inherit some remains of the love of good living which was remarkable in his father.

* Bezoar was an animal concretion, generally the biliary concretion of cows, oxen, camels, the intestinal concretion in horses, or even of animals nearly approaching the structure of man. There are beautiful specimens of these concretions in the collection of *Materia Medica* in the College of Physicians. Formerly Asiatic princes sent ambassadors to borrow a celebrated Bezoar.

So late as Napoleon's expedition to Egypt, a sheik sent, to propitiate him, a *famous collection of Bezoars*. The astonishment of the ambassador was great when the French general, either from contempt or policy, threw them all into the fire.

This was of very little importance, but the Emperor's disease called around him all those who professed a knowledge of our art, and many of the plants even still in reputation for the relief of the intervals of gout were prescribed for this powerful sovereign, from the ancient recommendation of Galen, Alexander, &c., and other Greek physicians, by his immediate attendants.

From this time Greek physic was all powerful in this form of disease, and we shall shortly see that even now some of our best remedies are only derived from the same source; they have been tried, laid aside for some new theory, and still again revived. And this should, in my mind, be a great recommendation, and not a cause for disparagement.

If, in the course of two thousand years, remedies, especially from the vegetable kingdom (which in such a space of time has undergone no alteration), have been recommended by the wisest of their day, have fallen into disrepute, buried or forgotten, have again been revived and used with great advantage, and perhaps this has happened a third time,—such a confirmation of their utility in different ages, under different theories, and in the habits of different nations, ought to make them acquire a greater stamp of value, rather than the contempt attributed to implements invented in an early and a savage state.

To the ancient means of cure still existing in practical medicine were added principally the use of mercurials by Paracelsus, and of antimony by Basil Valentine, both of the greatest importance in the armoury of physic. Gout in our own time, and the period imme-

diately preceding it, so often appeared to accompany mental superiority, that it soon became supposed to be an appendage to wit and genius. Sir Wiliam Temple, the Chancellor Bathurst, many of the wits of Queen Anne's time, Sir Robert Walpole, his brother the ambassador Horace, Lord Holland, the great Lord Chatham, and his greater son, were many examples of sufferers from disease, which, however painful, did not impair the faculties of the patient. It is even said, that in the last century persons were to be found who affected to have the gout in order to share, in the opinion of mankind, with those who were really possessed of great powers and afflicted by this disease!

What is gout? More than two centuries have elapsed, during which men, versed in various kinds of learning, and while new discoveries were pouring in, afforded a satisfactory reply for the moment to this question without attempting to give a full answer. I shall state the existing opinions of the nature of this disease, of its causes according to our knowledge, and our treatment whether scientific or empirical.

The ancient theory of gout recognised a specific morbid fluid mixed with the blood (the phenomena of the circulation was unknown), which was thrown off upon the joints, thus purifying the blood, and producing in its elimination what we now call an inflammatory condition of the joints and the tendons.* The modern

* The manner in which the prevalent idea of a morbid matter was mixed with an indisposition to meddle with what was called "the animal spirits," has rendered the theories of the seventeenth century almost unintelligible.

opinions which prevail are those of the two great countries of England and France. I proceed to describe them :—

1st. The opinions popularly held in this country attribute the gout to vicious secretions of the stomach and liver ; after some time, these derangements are followed by inflammation in the feet or hands, such inflammation being a natural termination or consequence of this disorder of the viscera, and of their suppressed or vitiated secretions. This is most generally the only explanation to be derived from those who have been taught in early life, that all diseases of the human body depend on disease or disorder of the secretions of the liver or of the bowels.

2nd. The opinion most prevalent in France is, that the cause of gout is the indulgence in too succulent and nutritious a diet.* All the textures of the body become gorged, and more nourishment is afforded them than can be removed by excess of excretion. Two modes of excretion, the urinary discharge and the cutaneous perspiration, keep up for some time the equilibrium between the ingesta and egesta, but sooner or later it happens that these outlets are not sufficient, or one of them is completely obstructed by some temporary cause, and thus the over-nutritious particles, which ought to be carried out of the body,

* The over animalization of the blood, consequent on an over nutritious diet, redundance of thick and viscid bile, explains the frequency of biliary calculi and gout. The secretion of bile affords one exit for the overnourished fluids of the body ; still more the urine, and the highly loaded urine in gouty persons, sufficiently attests the state of the blood, which is far more than able to supply the necessary secretions in their normal state, and the nutrition of the body.

are transported to the fibrous articular structures. The nutrition is greatly increased in these structures, otherwise almost insensible, endowing them in some measure with a new species of vitality. They are transformed from parts formed for motion and passive resistance to sensible and irritable parts, no longer able to fulfil these functions, and disposed to become inflamed spontaneously, or from an ordinary exciting cause.* Again, these nutritious materials in excess are deposited on the surface of the articular structures, and form the concretions composed in the greatest part of animal substance, as they for the most part consist of azote and animal matter.

3rd. A still more modern theory supposes that the acid matter which is distinguished in the urine and in the perspiration, and in the concretions in the joints, is formed in the blood, and very recently the changes in the blood produced by electricity are believed to form, in the living body, this acid so uniformly present in gouty excretions.

The French theory represents the facts thus :—

A man of sedentary habits, great enjoyment of society, and loving the table, is attacked by gout ; the urgent symptoms being inflammation where no inflammation existed before, and loss of motion where motion was most natural and most easy : but this only recapitulates facts in another language. The great problem remains—How does it happen that a man, sensual, idle, given up to ideal enjoyment and corporeal indulgence, has for the first time gout? This man dies,

* Dr. Delaroche. Dictionnaire de Médecine Pratique : art. Arthrite.

and leaves a child, perhaps an infant, who grows up delicate, tender, averse to study, fond of exercise, and most temperate,—how does it happen that this youth, even at a very early age, is a victim to gout.

Something there must be, more than mechanical. The contamination of the sanguiferous system must have been communicated to the son; and here the opinions of the ancients appear to explain best the phenomena. Before the first fit of the gout in one who originates it, the whole system has been in a state of what would be called congestion in these days. The blood more highly animalised, and filled with noxious particles, which are thrown off by inflammation of the extremities, termed gout, when no longer to be borne; and this state and condition, when children are procreated, may be transmitted to them, as scrofulous virus and syphilitic virus notoriously are. And this is the more proved by the animal salts secreted in these cases. Even when the son of a highly gouty patient is not gouty, he suffers from secretion of uric acid from the kidneys (the active acid in gouty constitutions), and although not bowed down by gout, is afflicted with gravel and stone.

I cannot assume any temporary cause in the production of gout. Gout survives the first victim; in a kindred form affects the next generation; re-appears in a third—in children, in women, among the most careful and sparing of the community, but with the well-marked features of the disease.

This, then, is the great question: how does the blood of a healthy man, in the first instance, become corrupted by indulgence, so as to affect not only his

own blood but that of his descendants? The most evident cause of gout is eating succulent food, with habits of a sedentary kind, producing over animalisation of the blood; and this is proved by its obviously remote causes. Drunkards, simply speaking, are not gouty. In countries where large, very large, quantities of whiskey or spirits are swallowed daily, gout is unknown. In London, amongst those who are most capacious for drinks (spirits), in the lower class of society gout is almost unknown. The brain is destroyed, the liver is disorganised, but gout is unknown.* Madness, apoplexy, dropsy in all forms, are produced, but not gout!

In country hospitals gout is nearly unknown; in London hospitals, principally in those at the West end, it is seen, and then in decayed butlers and housekeepers. At one of my monthly admissions at St. George's Hospital,† four cases (*mirabile dictu*) of gout were admitted. I had formerly stated to the pupils the cause of gout, and where it originated in my opinion, and said to some of them, "Ask those patients, quietly, how much meat they have been in the habit of eating daily?" The answer was, in one case, three times; in all the rest, twice daily, and largely. "And how often had they left the house?" "Not for weeks together!"

Of course, excess in spirituous liquors, added to excess in eating, will add to the mischief. After speak-

* In hereditary gout I have witnessed in boys the disease well marked as early as twelve years of age, and in females at fifteen and seventeen years of age.

† During the three years which I passed at Edinburgh, where I was constantly in the Infirmary, I never witnessed a case of gout. Yet Highlanders drink largely of spirits.

ing in this way, a friend will turn round and say, but I had a relation who scarcely ever eat meat, always drank water, and took regular exercise, who had gout—and how do you explain this? Not by the short-lived view he takes of it, what did his grandfather do—what did his great grandfather do—were these temperate—were they little eaters, in the times of public days, at noblemen's houses, and nights of drinking deep after hunting all day? This is the way to look at the subject; many and many a family have suffered from this scourge, being quiet, abstemious, and amiable; they literally “suffered from the sins of their fathers.” But the fact of this transmission from the father to the children is inconceivable in my mind, unless explicable by the tainting or over nutrition (different terms for the same thing) of the blood, which may be communicated in a less degree to the organization of the child. Similar transmission occurs in glandular diseases, where perhaps the contrary happens, and the blood is rendered *less nutritious*.

The diseases of languor which descend from father to son are notoriously transmissible. I do not say they do not arise from other causes, as want, depressing moral affections; but still they are transmissible!

Hence, then, we have gout, hereditary and original; what has been proposed for the cure, and what is the actual state of our knowledge? First, let us consider the phenomena of ordinary gout occurring in its usual form for the first or second time.

At a period generally between thirty and forty years of age, earlier if hereditary, later if arising for the first

time, the patient, usually a good liver, of sedentary occupations, and who has suffered most frequently what is commonly called “bilious complaints,”—that is, he has suffered much from dining out frequently, and eating and drinking largely,—has acid in the stomach, flatulence, and a fear, not of the quantity he eats, but of the quality: saying, that he is a most careful man, always eats plain things, mutton or beef; never tastes sweet things, never eats butter, and considers himself a paragon of care: but he does not say that he works all day and part of the night—perhaps in the House of Commons—eats late of fish and soup, and then heartily of *beef* and *mutton*, and potatoes, and porter, and being worn out, takes some wine afterwards.

Well, all this is very well, if he rode six hours a day, or followed the hounds, or walked many hours. But the nutrition is constantly introduced, while the exhalation from the skin produced by exercise is wanting; the regularity of the alvine and renal excretions is all in abeyance. Such a man, between forty and fifty, having been low-spirited, flatulent, and unable to eat, with heartburn, is perhaps, after exposure to cold, perhaps after a late party, perhaps after sitting up late writing, much against his wishes, attacked about two o'clock in the morning with acute pain, acute enough to make him cry out, in one foot. The pain is variously described, like boiling oil, like a sharp instrument struck into the joint, or merely like a very sore place, the soreness increased on movement. After several hours' acute distress, with fever, restlessness and pain, the patient obtains, about six o'clock, sleep, and wakes compara-

tively easy, but finding his foot, generally about the great toe, or the ankle, the elbow, or the hand, swollen, red, painful, and very tender. The bowels are generally confined, sometimes the contrary, the urine always scanty and high coloured, often the act of passing it is painful, the tongue is loaded, and there is some fever. All goes on tolerably well in the day, but about midnight the pain returns, and continues until six or seven in the morning. This occurs several successive nights, in first attacks, during about six or seven days, and the fit returns at long intervals; in later ones it remains as many weeks, and with great severity and after short intervals. This is a single case of ordinary gout: I proceed to speak of its complications and irregularities.

All which I have related is very clear, and would scarcely attract attention: starving, quiet, purgative medicines generally, and flannel to the limb (not forgetting the tendency to periodical termination), would appear to be sufficient: but this is not the case. Rarely, in *acquired* gout, often in hereditary, the following occurs: a patient suffers from most acute and constant pain in the stomach, he has great loss of appetite, and the taking of food is followed by torture; after a time gout appears in the extremities, and he is immediately freed from his distress! Another is exposed suddenly, feeling well, to blasts of cold air: his throat becomes swollen and *extremely painful*, deglutition is almost impossible; there is fever, *extreme depression*, almost despair; no local cause can be discovered sufficient for the severity of the symptoms. Suddenly great

relief is afforded to the pain in the throat, swallowing becomes easy, and gout appears in the foot or hand !*

A nobleman was first affected at the early age of fourteen with gout ; a keen sportsman, and although very careful on the subject of wine, yet he had had frequent attacks of gout, but *not recently*. At an advanced period of life he was suddenly attacked with inflammation of the lungs. He was bled ; blisters were applied and repeated ; mineral acids given, &c. The patient, after the first relief, was attacked by the most frightful hiccough, so loud and frequent, that the persons in the hotel near the sick room were obliged to leave their apartments ; and this continued unrelieved for several days. Gout then appeared in the feet, and all inordinate noise was hushed, and the respiration became natural. The patient of whose case this is a sketch lived seven years afterwards, without any return of gout.

A gentleman about sixty years of age, but of strong health, and who said he never had gout in the hunting season, was attacked with violent and acute pain in the thigh. He had suffered previously from slight attacks of gout, and at long intervals ; the pain was in the thigh-bone, was unaccompanied by swelling or redness. The pain came on at night, and lasted during eight or nine hours, remitting towards morning, and ceasing about ten o'clock. Suddenly, almost, the pain ceased, but a few days after, the patient appearing to be gaining strength, violent pain fixed in the shoulders and

* At St. George's Hospital, I witnessed this transposition from the hand to the throat and eyes, and from the throat to the hands and feet, in three several examples.

muscles of the back, beginning about four o'clock in the morning, and lasting until eleven ; but the pain was so extreme as to cause the patient, a man of the greatest gallantry of feeling and conduct, to scream out ; alarm even was taken lest slow inflammation and softening of the spinal cord were concealed under the suffering. Gouty remedies relieved the pain, and after the appearance of gout in a slight form on the extremities, strengthening medicines were had recourse to : the patient recovered. This patient had another severe attack of gout in the hand, with alarming internal symptoms, exactly ten years after the former attack.

Hence sciatica in *gouty constitutions*, or any remarkably curious pain, must be looked upon with great suspicion.

To this form has been attributed the name of aberrant gout, or erratic gout.

After many years of repeated attacks, the constitution seems about to give way : the patient becomes lean, weak, low-spirited, has lost his appetite, has lost his pleasure for his usual occupations : he fails. In such a case the occurrence of gout changes the scene : the patient recovers health and spirits, and even flesh.

After repeated paroxysms, it often happens that no regular attack takes place. Every sudden or familiar illness is then to be dreaded, because likely to be tinged by gout.

A very distinguished patient of mine, at the age of sixty, having been often attacked by gout, but not during the last preceding five years, was at the interval of seven years twice attacked by the most alarming symptoms—constant vomiting, a weak pulse, too fre-

quent to be counted, shrinking of the countenance, coldness of the extremities ; no local pain.

Two grains of calomel and one of opium were given every two hours, and brandy and water with ginger constantly : a mustard poultice to the pit of the stomach and the hot bath, were employed. From both attacks the patient recovered, and has survived many years.

This was atonic gout.

Gout which is originated by hereditary predisposition is commonly productive of little effect on the constitution in regard of life, unless accompanied by profligate habits. I have seen many cases of gout, in which the attacks had been frequent, and were still frequent, in men from eighty to ninety years of age. The celebrated Horace Walpole inherited gout, and had frightful attacks for fifty years ; he lived to be eighty-six. The late Lord Manners died of gout at eighty-six, having lived to feel many serious attacks, always in the extremities. Those who have regular gout, that is, affecting the hands and feet, live often to a great age. Those who have the aberrant gout, of which I have spoken, usually die suddenly. I shall speak of the difficulty of estimating these cases when upon the subject of the treatment of gout.

I come now to speak of the last variety of this disease—retrocedent gout, or the case in which the gout suddenly leaves the extremities, and an internal part is affected ; or, the gout still remaining, but in less degree, in the extremities, violent symptoms arise in internal parts.

In these cases, the stomach is the most frequently

attacked; sometimes the lungs, and sometimes the head. The symptoms, whether of pneumonia, apoplexy, or enteritis, are greatly modified, from ordinary cases of these diseases, and are better treated by revulsives and counter-irritants, than by blood-letting, though blood-letting is not to be prohibited* where symptoms of serious disease of the internal viscera are manifested, especially in the head. It has occurred to me to see more than one case of persons who have died suddenly from retrocedent gout; they have died almost instantaneously, and always after neglecting the ordinary attack of gout—walking, or exposing themselves to cold, or travelling long journeys. In no one of these was there found after death any morbid appearances sufficient to explain the cause of death, and as in these examples the bodies putrified within a few hours, they presented more the appearance observed in persons who died by rapid poison, or from an electrical shock, than any other.

It is well known, that in animals poisoned, or killed by lightning, the bodies almost immediately pass into putrefaction, and yet no disease by post-mortem examination is discovered to give any clue to the intermediate process.

The blood also has been found to be in a fluid state.

Where patients die, worn out as it is called with gout before arriving at a great age, I have generally seen enlargement of the heart (hypertrophy), and this

* Quod si periculum præceps fuerit, et omnis moræ impatiens longè perniciosius erit venam non incidere in morbo ex inflammatione, quam in arthritide sanguinem detrahare.—*Heberden's Commentaries*, p. 41.

was signified in the latter months of life by anasarca.

But effusion into the brain of a chronic character, or disease of the liver, with contraction of the substance and thickening of the peritoneal covering are also seen after death less frequently, I think, than the first mentioned morbid appearance.

The treatment of gout has varied little since the earlier knowledge of the disease, except from occasional violent practices.

Our present practice consists in keeping the bowels open with warm and aromatic purgatives, in great attention to the digestive organs, particularly the liver, in the regulation of diet, and during the fit the employment of opiates to relieve pain, and of colchicum to diminish severe inflammation, and from its character as a specific.*

In English practice blood-letting is very rarely employed either generally or locally. Sydenham, himself a sufferer from gout, entirely disapproves of venesection, and it has been found to be followed occasionally by serious accidents, even in an inflammatory condition of the body.†

The French school of medicine has lately revived the practice of topical bleeding by leeches.

“But the most certain way to calm the pain consists in the application of many leeches round the affected articulation, followed by emollient or narcotic cataplasms.

* Drastic purgatives in the decline of gout are greatly to be avoided.

† “The blood which is drawn out (says Sydenham), is more commonly like that of pleurisies, or of those who have a rheumatism; yet, bleeding does as much harm to those afflicted with this disease, as it does good in the two first mentioned.”

“These means already used by the ancients were noticed particularly by Baillou in these terms : *Cornicula frequentia et hirudines copiosæ habitui corporis applicitæ conferunt.*”

“These were greatly applauded by Paulnier, Broussais, &c., and have been alone sufficient to shorten the attacks of gout, and in a remarkable degree to diminish the sufferings, and in some cases to arrest them altogether. We ought never, therefore, to neglect this means in acute regular gout, but in order to obtain satisfactory results the leeches must be applied with out timidity and with perseverance. Do not fear to apply ten, twenty, or thirty leeches round the painful part, and to repeat them several times, as has been done by these physicians, and many others in imitation of them.” * This practice is not common in this country, but I have witnessed it several times. It is only applicable to a first fit in a very young person, and is generally followed by a protracted seizure, though the pain at first is alleviated. In one case, though the pain was relieved, the patient told me he was confined to bed three months, while under the ordinary treatment he was well in less than the same number of weeks.

In every case (few certainly) in which I have seen gout treated in this way, the attack became unusually long, though the pain was in the first instance relieved.

The attention of the public and the profession has been greatly occupied since the year 1810 by the resuscitation of colchicum from oblivion, at first as a secret.

* M. Delaroche.—Dictionnaire de Médecine Pratique.

In that year a magistral or quack medicine was introduced from France, entitled the "Eau Medicinale d'Husson." Each bottle contained three doses, and it was recommended to take the third of a bottle for three successive doses,* at the end of which time the gout was gone, and wonderful stories were told of the success. Persons much afflicted with gout purchased the medicine, and reasoning about medicine as mankind without medical knowledge usually does, conceived that if a third of a bottle did such wonders, a half or whole bottle would do as much more, and under such reasoning and practice some serious accidents happened; violent purging and vomiting came on, and in one or two instances of aged persons death ensued. Anxious to discover the ingredients of undoubtedly a powerful medicine, various experiments were made. An imitation by Mr. James Moore, of Conduit Street, seemed to produce similar effects both of cure and severity.

The base of his preparation was the root of the *Vera-trum album*, which by some was confidently believed to be the active element in the Eau Medicinale. The Eau Medicinale, when taken moderately, produced no effect except gentle purging, with great and almost immediate relief from pain, and undoubtedly both then and now shortens the fit; in an overdose violent vomiting and purging were produced, and if not immediately left off life itself was at stake. A rumour speedily was diffused that the Eau Medicinale was the vinous tincture of the

* On three successive evenings, or at night, the morning, and the following night. The first was the most frequently recommended plan.

root or cormus of the *Colchicum autumnale* or meadow crocus—a plant blooming in the autumn in very wet meadows, a purple crocus.

In France, near the town of Sedan, these plants grew in abundance, and for several successive years were found to disappear in a single night, or more probably in several successive nights. Curiosity induced people to watch, and the roots were traced to a shop in Paris where the *Eau Medicinale* was manufactured.

Dr. Perkins, of Coventry, said that the late Count of Leinengen, who suffered for many years from gout, considered himself to have been cured by taking the *Eau Medicinale*, and gave the recipe for its composition to Dr. Perkins. This was a vinous tincture of the root of the *Gratiola officinalis*, which has since, it is said, been found to contain *veratria*.

A very unjustifiable trick, even for the sake of science, put the dispute at an end in this country. A man (who I believe was employed), found his way into the kitchen in the Haymarket where the medicine was made, its use having become general, and returned with the roots of the *Colchicum autumnale*.

From this time the dispute of identity seems to have been at an end, as to *colchicum* being the base of the *Eau Medicinale*: but a new controversy arose.

It was found that at last little new had been effected by recommending the tincture, or vinous infusion or root in powder of the *colchicum*, in gout; that this plant existed in Greek physic under the name of *hermodactyls*; that the description of its effects exactly tallied with those given by one of the most eminent

physicians of the lower empire, a physician of the fourth century, Alexander Trallianus.*

In other Greek works on medicine, especially those which had been translated from the Arabic, hermodactyls were termed *Theriaca articulorum*, or the opiate of the joints, or *Anima articulorum*; and the efficacy of colchicum in various forms, in pain, swelling, and effusion in the joints, independent of gout, is now fully recognised. But are hermodactyls, as mentioned by these persons, a species of colchicum? Dr. Hooper, no mean botanist, says hermodactyls were the bulb, or cormus, or prepared from the bulb of the *Colchicum illyricum*, Linn.

The late Sir Henry Hallford caused a purchase to be made at the Bazaar of Constantinople, a few years ago, of hermodactyls. The result was, a collection of bulbs undoubtedly of the genus *Colchicum*.† These facts are in my mind quite convincing of the identity of the two medicines.

Still it is no less certain that the word hermodactyls‡ was applied to different medicines, perhaps as elaterion

* Speaking of persons affected with gout, he says:—"Bibunt autem non-nulli etiam id quod vocatur *δια ερμολακτυλου* ajuntque doloris levationem unde fieri, dum et ventre quædam aquosa evacuat, ut etiam ægri statim inambulare velint. Atque hoc est verum, raroque id quod titulo promittit, non evenit sed habit aliquid quod offendit, quoniam effecit ut ii qui bibunt crebrius fluxione irriterentur."

To obviate this, warm medicines are recommended to be added; as cummin, mastich, and ginger.—Alexander Trallianus *de arte Medica*, Vol. ii. p. 103.—Lausaune.

† These specimens are, I believe, in the collection of *Materia Medica* in King's College, London: two specimens given to me by Sir H. Hallford are in the Museum of St. George's Hospital.

‡ The specimen of hermodactyls in the beautiful collection of *materia medica* in the College of Physicians, London, is the root of the *Iris tuberosa*; the tubercles being the part of the plant used.

has been said to not merely denote what is now known as the *fæcula* of the *Cucumis elaterium*, but *any* very drastic purgative.

MM. Merat and Lens state the general belief, that though the hermodactyls were the tubers of the *Iris tuberosa*, which was the case in one sense, that the various kinds of colchicum have been used under the name of hermodactyls, and are understood under this name. Another opinion, traced as high as Matthioli, perhaps to the Arabians, (while the preceding is that of Tournefort and Linnæus,) is that which attributes this root to a colchicum called *Colchicum orientale*, by others *Colchicum Syriacum*, by others *Colchicum Alexandrinum*. M. Fée names the *Colchicum variegatum*, with the authority of Miller, as the plant producing hermodactyls.

A conclusion very triumphant for modern chemistry, has solved the question of the important ingredient in the Eau Medicinale: whether colchicum, veratria, or gratiola, was the base of this remarkable medicine, they are all found to contain veratria, and to veratria is to be attributed their efficacy both purgative and sedative. Whether a vinous infusion of gratiola, or of the root* of *Colchicum autumnale*, be the active principle of this medicine (though I have no doubt of the latter), it is certain that a preparation equally similar in effect can be made by a vinous infusion of veratrium with an opiate. Chemistry shews the same active principle in each; the dispute falls to the ground, as far as its utility is concerned.

* I use the word root in a popular sense, the part employed being what is now called the cormus.

It is certain that for more than thirty years in this country several preparations of *Colchicum autumnale* have been introduced into practice in the painful and inflammatory form of gout, and in the effusion into the joints very generally known under the name of synovial rheumatism.

In the latter cases I have used it in hospital practice largely, and in private practice frequently, without in a single instance having reason to believe that it was hurtful, and having had frequent most obvious and most important cases to vouch for its utility. In gout, especially in gout originated from excess, in strong, violent, painful gout, it may be given not only without fear, in moderation, but with almost an absolute certainty of relief, without any bad effects either immediately or remotely following its use.

But here comes the great difficulty. If, at whatever distance of time, a gouty patient, who has once taken colchicum for gout, is attacked by the diseases incident to advanced life, habitual good living, or severe and sudden mental distress, it is laid by all his relations on the colchicum, even though it relieved him sensibly, and though years had elapsed since it was taken. "Oh! I always said it would be so! he took that horrid medicine!"

When a physician kindly observes to a patient, or friend not suffering from the disease, that in very severe cases great advantage has been derived, and no danger whatever has occurred from the careful use of this medicine,—“Ah! it is all very well what you say, but

all persons die of palsy or apoplexy who take colchicum ; you *lose sight of them*."

"They die." What is this when translated? A man has violent gout ; he takes colchicum under the advice and care of his physician ; he recovers, is charmed with his recovery, and, being charmed, makes no kind of alteration in his life—eats and drinks. Gout appears at about fifty years of age when originated : as life gets on, the patient, a full man and a good liver, becomes more and more exposed to that alteration of the arteries which is a serious cause of apoplexy ; he dies at sixty-five, of an apoplectic seizure ; or if he recovers, is paralytic. Oh, it was all the colchicum ! In answer to the observation made before (and it was a real one), I have observed the state of persons who have taken colchicum, prescribed by a physician in some instances twenty years ago, in several instances fifteen years ago, and in many where the gout came on violently and painfully, and I never witnessed a single instance where any mischief resulted from it, either immediately, or after a term of years. But there are persons who are so conscious of the relief afforded by this medicine, that they will not submit to the regulation of the physician : "You do not give me half enough," has been no uncommon commencement of a battle to fight ; and when the physician has refused to give more than moderate doses, satisfied of what would be the result, the impatient sufferer has himself doubled the dose, sometimes with impunity, sometimes with distressing effect. If a solution of arsenic, given for cutaneous disease, or

in pernicious tertian ague, were swallowed by the patient in double doses or more, and death the consequence, would any real accusation lie against the acknowledged efficacy of the medicine from the rashness or stupidity of the unfortunate victim? One thing is certain; the very fact of the patient requiring more to relieve his pain entirely, can only arise from his conviction of its efficacy in his disease. I shall say no more on this subject. Dr. Holland, in his recent beautiful work, entitled "Medical Notes and Reflections," has entered fully on this subject. I entirely agree with him; there is not one word of that most clearly written article with which I do not, after long experience in hospital and private practice, most entirely agree.

I must especially record my agreement with the opinion which bears witness to the advantage derived from the continuance, in small doses, of the colchicum long after the immediate distress has disappeared. One of the worst cases of repeated fits of severe gout, with all its sequelæ, which I have seen, was greatly relieved, if not cured, by continuing a small dose of *vinum colchici* (xv. drops) every night during a twelvemonth. The patient was not aware he was taking it; he was only cognizant of restored health and strength.

I proceed, then, only to speak of the preparations, and the way in which they are to be administered.

The preparations in use are the vinous tincture

of the root ; the same of the seeds ; the vinegar of colchicum ; the extract made from the acetous solution ; the inspissated juice, or *succus spissatus colchici* : of these, in my opinion, the wine of the root, and the acetous extract, are the most frequently and effectually employed.

But here another little controversy meets us. In Lilliput it was a matter of faction whether the nobles broke their eggs at the great or the little end. In England, people have been nearly cuffing one another as to the preference in the practice of medicine of the wine of the root over the wine of the seeds, or *vice versâ*. First, I am informed by those who make these medicines on a large scale, that the wine of the root contains a far larger proportion of veratria than the wine of the seeds ; secondly, it has been said that the wine of the seeds far less frequently produces nausea and sickness than the wine of the root. To this I may reply, that I myself have often seen the wine of the root agree, where the wine of the seeds produced nausea ; and the late Sir Henry Hallford assured me he found, in his extensive practice, the wine of the root more efficacious, and less productive of nausea, than the wine of the seeds.

I have employed various preparations of this medicine in synovial rheumatism at St. George's Hospital, and many pupils will still remember the result. The great difficulty accompanying its employment is the inequality in its effects ; one preparation would produce nausea, when a stronger one would not. The wine of the root

would succeed, when the wine of the seeds produced sickness, and *vice versâ* ; and when both disagreed, the acetous extract would have the best effects ; but occasionally the acetous extract would produce uneasiness, and then either of the other preparations would be borne.

The principal magistral or quack preparations of colchicum are Wilson's tincture, (on the authority of Dr. Paris an infusion of colchicum in spirits), and Blair's pills.

I may here relate a not uninteresting anecdote, because it shows the caprice of mankind in reference to medicine.

A nobleman who had suffered dreadfully from hereditary gout, and had been relieved by colchicum under his physician's guidance, met a fellow-sufferer in the House of Lords : mutual inquiries ensued, and ended in the strong recommendation from the latter of Blair's pills. "I never had any health until I took them," said the friend, "and *they have quite restored my health.*" The counsel was followed, but the unhappy patient had been recommended a dose of colchicum much larger than he had ever taken before. The effect was very alarming, and acted after his recovery decidedly to prevent his snatching at friendly remedies, which had been an error in his life.

The sequel is singular. Almost immediately after this circumstance, the adviser had a paroxysm of gout more violent than on any former occasion. A lover

of new remedies, he applied to hydropathy, and the next year and a half or more was enjoyed without any return of gout. His spirits rose, and his opinion of hydropathy even exceeded his former belief in Blair's pills. He went every where declaring he was *cured*. A few short weeks after this declaration, a fresh attack of gout, more severe than any former one, demolished his theory, and vitiated his experience.

* And such is the history of quack preparations, or quack remedies, in gout, until time has tested their efficacy and determined their relative importance.

In regular gout, whether of the hereditary or acquired kind, each very severe attack is followed by a long corresponding interval of ease. If a pretender to cure by unknown remedies or new processes arrives at the conclusion of a severe fit, he will not prescribe at the moment, but he says, "When your fit is over, I will prevent its return by my method or my remedy." The long intervals of ease which the patient usually enjoys, and some disposition to more care as to food, &c., raise the hope that the disease is effectually subdued, and for the time the new adviser is a hero. Many a temporary fortune has been made by such management.

But on the expiration of a somewhat longer period than usual a still more severe attack than any former one arrives, and sends the patient, determined not to alter his habits, or incapable of doing so, to new pretensions and secret remedies.

In general, in a severe attack of gout, I begin by a scruple of the wine of the root* twice daily; and at night, supposing the bowels are open, three grains of the acetous extract, with five of Dover's powder. If the bowels are not open, or are generally inactive, instead of the last prescription I give the following, to which one or two grains of calomel may be added, if it is thought necessary.

℞ Extract. Acet. Colchici, gr. iij.

Extract. Colocynth. Comp. gr. vi. M.

Ft. pilula ij. hac et crastina nocte sumendæ.

In this way the medicine may be persevered in, always with good effect, for several days; indeed, no harm can happen so long as the medicine neither produces vomiting nor sharp purging; in either case it must be immediately left off; but in either case the disease will also seem to be very greatly relieved, and in some cases to have disappeared altogether.

The medicine may be given for weeks, without producing any bad effects, or any effects at all, except the gradual and perfect recovery of the patient. Speaking, then, first of the gout which is acquired, or the case in

* ℞ Vini Rad. Colchici, ℥j.

Magnesiae Ustæ, ℥ss.

Mist. Camphoræ, ʒx. M.

Ft. haustus bis in die sumendus.

Vel. Haust. Salini, ʒiss.

Vini Rad. Colchici, ℥j. M.

Bis in die.

℞ Pulv. Ipecac. Comp. gr. v.

Extracti. Acet. Colchici, gr. iij. M.

Ft. pilulæ duæ, h. s. s.

which gout in the family is a very remote circumstance, the following is ordinarily the practice :—The bowels are to be freely opened with calomel, colocynth, and scammony,* and then the colchicum is to be given, about twenty drops of the wine twice daily, and at night three grains of the acetous extract, with five grains or more of Dover's powder, according to the *nightly pain*: this must be soothed at all events. This course may be continued. The purgative should be given every second or third night, and the patient kept on low diet; and in a first attack from six to ten days is the usual duration of the paroxysm.

But where the attack (without marked hereditary taint) has often been repeated, it will be better to give a dose of colchicum only at bed-time, combined with an opiate; taking every alternate morning a dose of Cheltenham salts in *warm* water to obviate constipation.

℞ Vini Rad. Colchici, ℥ss.
 Solut. Acetatis Morphiae, ℥xx. (gr. ½).
 Aquæ Flor. Aurantii, 3j.
 Aquæ Fontanæ, 3x.
 Syrupi Aurantii, 3j. M.
 Ft. haust. h. s. s. o. n.

If, indeed, fever runs very high, with hot skin, pulse very quick, and great febrile distress, to the night draught may be added from twenty to thirty drops of the liquor antimonii tartarizat. with good effect. Variations of

* ℞ Hydrarg. Chlorid.
 Pulv. Gummi Scamm. aa. gr. ij
 Extr. Colocynth. Comp. gr. iv. M.
 Ft. pilulæ, ij. h. s. s.

this treatment will generally meet all the difficulties of regular painful gout in the paroxysm ; still, after several attacks, more must be thought of.

The disease undoubtedly, in my mind, is communicated through the blood. Sir Everard Home wrote a paper in the "Philosophical Transactions" for 1816, to prove that the efficacy of colchicum resulted from its being communicated through the blood.* The constitutional disorders from lues are met with diet drinks, and most effectually. These considerations have induced many physicians to recommend diet drinks, *i. e.* the introduction of diluting medicines, or vegetable medicines, into the animal body, which might either be incompatible with, or alterative of, the vitiated condition of the blood, as in cutaneous diseases, scorbutus, scrofula, or lues.

Various preparations have been recommended for this purpose ; but I believe I have seen more advantage derived from the decoction of the Burdock root (*Arctium Lappa*), the bardana of the French, than from any other remedy. It has been used on the Continent for many years as a ptisan or diluent, in cases of constitutional weakness.

In the year 1758, Mr. Hill published a very unconvincing account certainly of the efficacy of this remedy ; still his little work went through six editions.

I have certainly seen great good from its use as an adjunct to other remedies, and in acute gout ; and I

* "The power of the Eau médicinale, which I have stated to be exactly similar "to that of *Colchicum autumnale* over the local symptoms of gout, I have ascertained by experiments more than six times upon myself."—*Phil. Trans.* p. 259.

can safely say, that I have been convinced that severe attacks have terminated more favourably, and I think the return has been prevented, by the use of this remedy during several weeks.

I use two ounces of the sliced root of the burdock, well washed, and boiled *slowly* in a pint and a half of water to a pint and strained. This pint is to be drunk in the course of the day and night, with an equal quantity of milk.*

The most fastidious and difficult patients have assured me that its *taste* is *agreeable*: the smell is unpleasant.

“Next to my bootikins (says the celebrated Horace Walpole, a sufferer from long and severe attacks of gout,) I ascribe much credit to a diet drink of dock-roots, of which Dr. Turton† asked me for the receipt, as the best he had ever seen, and which I will send you if you please. It came from an old physician at Richmond.”—*Letters from the Hon. H. Walpole to the Rev. Mr. Cole*, p. 239.

It is singular, that among the peasants, and people left to their own cure in a great degree, this plant enjoys a high degree of confidence for similar diseases.

Last year, a young gentleman, when going to bathe, observed a large quantity of docks growing on the banks of the river: he said to a poor man passing by, “Is this “the burdock?” “No, sir; *that* is the burdock (point-

* It is, however, not necessary to take the milk. If the quantity of fluid be objected to, the decoction may be taken alone.

† Physician in Ordinary to George the Third and Queen Charlotte.

“ing to another bush of leaves): I know it well; for an
“old Indian soldier cured me by a drink made with
“the root of it, after I had been laid up many weeks
“with severe *rheumatics* in the loins.”

A soldier, who was a patient not long since in St. George's Hospital, mentioned many cases of severe sciatica, which were cured in his knowledge by a drink made of these roots. I heard the latter account long after I had seen the best effects from this simple, cheap, and not disagreeable remedy.

It is not easy to understand the theory by which a disease, while acknowledged to be constitutional, was to be treated by local remedies. Still the most ancient and experienced physicians were very fond of ointments to the affected joint; from simple adeps to medicated ointments, honey, stimulating preparations, even blisters.

After the first discovery in the East of the application of moxas to chronically inflamed parts, the practice was introduced into England. I subjoin the opinion of the celebrated Sir William Temple on this subject, as containing all that I can say, and better than I could say it.

“Upon the first burning I found the skin shrink all around the place; and whether the greater pain of the fire had taken away the sense of a smaller or no, I could not tell; but I thought it less than it had been. I burnt it the second time, and upon it observed the skin about it to shrink, and the swelling to flatten yet more than at first. I began to move my great toe, which I

had not done before ; but I found some remainder of pain. I burnt it the third time, and observed still the same effects without, but much greater within, for I stirred the joint several times with ease ; and growing bolder, I set my foot to the ground without any pain at all. After that, I had a bruised clove of garlic laid to the place that was burnt, and covered with a large piece of diapalma, to keep it fixed there ; and when this was done, feeling no more pain, and treading still bolder and firmer upon it, I cut a slipper to let in my foot, swelled as it was, and walked half a dozen turns about the room, without any pain or trouble ; and much to the surprise of those who were about me, as well as to my own.

“ For the pain of burning itself, the first time it is sharp, so that a man may be allowed to complain ; I resolved I would not, but that I would count to a certain number, as the best measure how long it lasted. I told six score and four, as fast as I could ; and when the fire of moxa was out, all pain of burning was over. The second time was not near so sharp as the first ; and the third a great deal less than the second. The wound was not raw, as I expected, but looked only scorched and black ; and I had rather endure the whole trouble of the operation, than half a quarter of an hour's pain in the degree I felt it the whole first night.

“ After twenty-four hours I had it opened, and found a great blister drawn by the garlic, which I used no more, but had the blister cut, which ran a good deal of

water, but filled again by the next night; and this continued for three days, with only a plaster of diapalma upon it; after which time the blister dried up, and left a sore, about as big as a twopence, which healed and went away in about a week's time longer; but I continued to walk every day, and without the least return of pain; the swelling still growing less, though it was six weeks before it was wholly gone. I favoured it all this time more than I needed, upon the common opinion, that walking too much might draw down the humour; which I have since had reason to conclude a great mistake, and that if I had walked as much as I could from the first day the pain had left me; the swelling might have left me too in a less time.

“ I continued well till this spring, 1667, when, about the end of March, feeling again the same pain, and in the same joint, but of the first foot, and finding it grow violent, I immediately burnt it, and felt no more pain, after the third time; was never off my legs, nor kept my chamber a day. In these last experiments I omitted the application of garlic, and contented myself with a plaster of diapalma upon the place that was burnt, which crusted and healed in a few days, and without any trouble.”

The following account is given by Van Swieten:—

“ A clergyman inherited this distemper from his father and grandfather. When he was laid up with a very severe fit in Batavia, an Indian woman not only promised to give him ease, but also to cure this distemper entirely, provided he would only undergo a

gentle burning. He was averse to it at first, but upon the pain increasing he at last consented. The woman then taking a bit of the moxa, no bigger than a pea, and forming it into the shape of a cone, applied the base to the place where the pain was chiefly felt; then set fire to the apex of this little cone with a small match of an aromatic twig. Part of the moxa was converted into ashes; a part remained adhering to the skin, which the humidity that issued from the part had hindered from burning. This burning with the moxa was several times repeated, though for the most part it is only performed thrice, and the whole operation was finished in half an hour, though he had this remedy applied to several places at once. He said he could observe by his sight, as well as feeling, the quickest motion of the humours underneath the skin; and all his pain abated immediately.

“ In the meantime he allows that the part affected threw out a rank stinking vapour, and that soon after he fell into a continued sound sleep, which he had not enjoyed for several weeks before. Next day, when he walked he felt nothing of the disorder remaining but a swelling in the feet; and this also very soon went off.”

Except in the case of ulcerating chalk stone, local applications are not much used in our practice. Is this right?

The authority of a well-known author on this subject,*

* Sir C. Scudamore.

and one who brought together in one view the result of extensive experience with much labour, is against these local applications.

But I must differ from the sweeping condemnation which rejects in all cases what has been greatly praised in all cases. It appears to me, that some must have benefitted in the midst of unsparing panegyric, though many may have suffered from indiscriminate recommendations of the same remedy.

Let us take the case of the bootikins. The bootikins were simply a glove, with a partition for the thumb, but no separate ones for the fingers—like an infant's glove, made of oiled-silk.

The celebrated Horace Walpole, a martyr to hereditary gout, speaks for thirty years of the comfort he derived from these gloves, in a strain of encomium which could only arise from his conviction of the benefit which he had derived from their use: thus—

“Except one day's gout, which I cured with the *bootikins*, I have been quite well since I saw you.” *

Again—

“I am perfectly well, and expect no more from the bootikins than to curtail my fits.” †

There are many other passages in his writings, in which he speaks of the great comfort which he derived from this application, and that his friends had also received relief.

When greatly advanced in life, and still suffering from gout, we hear no more of the “bootikins.” Had

* Letter to G. Montague, Esq., July 12, 1767.

† To the Rev. Mr. Cole, July 5, 1775.

they lost their effect, or was the good derived only the result of a strong imagination catching at relief, as we see in our own day, when we meet men of great talent, high position, and judgment in everything except medicine (which not having learned they cannot estimate), as superstitious about remedies as a washer-woman?

I think I can explain this from my own experience. External applications in gout are useful, very useful, in some stages, and some forms of gout, but not always. For instance, about eight years ago, I visited a gentleman, who, having long suffered from gout, was about to pass the summer at the baths of Wiesbaden. Previous to his journey he had a violent attack of gout. It affected one knee and one foot, on the opposite sides, but the pain was far more severe than in ordinary cases, and the constitutional distress, fever, restlessness, &c., far greater than usual. The relief afforded to this gentleman's sufferings from the rolling of the affected part in oiled silk, I shall never forget. I went away satisfied I could relieve the worst part of gout.

Long subsequent observation has convinced me of the mistake, and explained the loss of confidence in the bootikins of their great patron as life advanced.

In early and very acute cases of gout, the application of the oil-silk is, as I have said, attended with immediate and most remarkable relief; and in the less fully developed forms little or no good is to be derived from its use; and as life advances it often produces mischief.

About ten years ago, I attended a patient, then an old man, who had suffered much from frequent and most painful attacks of gout. He derived comfort, very great comfort, during the fit, from this application. Rather more than a year ago I saw him again, at a very great age. He was suffering tortures from gout; his feet distorted, and his sufferings aggravated almost to despair. I recommended the external application from which he derived so much benefit before. So far, however, from relief, his symptoms were greatly aggravated. The application was followed by blisters all over the part of the limbs which the silk had covered.

This explained to me the discrepancy in opinion as to the efficacy of such treatment.

The oiled-silk appears to act like a poultice, by confining the perspiration of a part, and, as long as the inflammation is acute, this effect taking off the tension of vessels, affords relief. But when from old age the skin is dry, almost incapable of the exhalation necessary to its healthy condition, disease is produced.

The late Sir M. Tierney believed that he derived benefit in gout from the application of a cabbage leaf to the affected joint. This acts in an inferior degree like a blister, and is used on the continent for keeping open vesicated parts: its coolness may perhaps afford at first relief, and by changing acute inflammation into suppuration act as we have seen the moxa was supposed to do.

In soreness, or where shooting pains in the foot exist after the departure of the gout, anointing the part with sweet oil has often had a soothing effect; and when the gout has entirely disappeared, but weakness of the joint of the great toe remains, or of the ankle or wrist, the employment of an evaporating lotion has been recommended, made with liquor ammoniæ acetatis, ℥iv. ; spt. rectificati, ℥j. ; mist. camphoræ, ℥vj. ; but its efficacy has been called in question, and in some cases danger has been supposed to be the consequence of its employment. But this could only arise from the imprudent use of it in very active gouty inflammation of the extremities. But the efficacy of these remedies, in cases of simple gout, or in the early stage of gout, differs at least in degree from those cases in which gout has frequently affected the patient, having begun early in life, and being of an undoubtedly hereditary origin. In these cases gout often first appears in parts distant from its usual seat; for instance, the throat, or the eyes: as an example—

A young lady, æt. 15 only, having a strong predisposition, from family descent, to gout, was attacked with violent pain and swelling of the tonsils—a complaint always painful, but in this case especially so: the swelling, however, was far less than in ordinary cases of quinsey, but the pain greater: after two or three days the throat was nearly well, but the ankles became greatly and very painfully swelled: the addition of colchicum to the draughts speedily removed the disease.

In other cases, after several fits of hereditary gout,

the eyes become affected, the inflammation very severe and very painful, and here also the adding colchicum to the usual internal remedies has been found to be of the greatest advantage.

In persons advanced in life, after several attacks of gout the kidneys and bladder appear to be the parts principally affected. There is violent pain in passing water, and even mucus discharged, with constant micturition ; the pulse usually quiet : and here the usual gouty remedies, as wine, or acetous extract of colchicum in saline draughts, or the acetous extract in pills, with Dover's powder, materially contribute to the patient's recovery.

In all these cases our main object in the treatment should be to determine the gout to the extremities. The patient, in addition to the remedies mentioned, should use the warm foot-bath at night, with one or more handfuls of mustard flour ; and where the eyes or the urinary organs are concerned a few leeches to the temples, or to the perinæum, have been oftentimes found materially to diminish the distress, and assist the cure. I am quite satisfied, however, that such remedies *alone* do not afford great benefit, and often appear to render the case tedious.

Where the constitution is greatly broken, the waters of Bath are the best in Europe for the restoration of the patient : and here I must pause for a moment to speak of the use of *hot* mineral waters in the treatment of gouty diathesis, and of the effects of gout.

I have not hitherto dwelt on one of the most usual accompanying symptoms of gout, especially of acquired

gout, the secretion of lithic or uric acid, or its compounds, in gouty constitutions. It has already been stated that a good view of gout may be found in the over nourishment of the body, or more properly undue animalization of the blood, by materials received into the circulating system in much greater proportion than can be carried off by the secretions or excretions. Hence the bile becomes inspissated: the cuticular secretion, not promoted by exercise, is little, and the greater excretors, the kidneys, are loaded with a more dense and animal secretion, beyond their power to dispose of; hence the concretions in the urinary organs in gouty constitutions, and hence the deposition of uric acid and its bases in the joints, where it is not removed by the kidneys.

Often after a first, but very frequently after several attacks of gout, and especially in those cases in which the uric acid has been found in the greatest abundance in the urine, the ligaments and tendons of the hands and feet do not lose their swelled and inflamed state and impaired motion when the general system resumes its healthy condition. The patient has still indistinct, and often even very severe pains in the joints of the fingers and toes, without fever, and with an ordinary appetite but with low spirits, for the patient, perhaps in the early part of life and hope, has all the inconvenience of a cripple, and all the fear of continuing to be so.

It is to this form of the disease that the mineral waters of Bohemia are of such extraordinary use. The waters of Wiesbaden, in the modified case; the waters of Carlsbad, in the more aggravated; and where the

attack is connected with large discharges of lithic acid, or lithate of ammonia. About nine years ago I was asked to see a young gentleman, just returned from India, labouring under what was called rheumatic gout, which affected all the joints both of the fingers and toes, and in a less degree the larger joints ; the smaller joints could not be moved at all, or even touched ; the tendons and ligaments were swollen, and painful on pressure ; but there was no fever, and a cheerful spirit : the urine was loaded with the lithates.

It was January.

I said I could only relieve him with the assistance of colchicum and opiates in small doses. These medicines would diminish his distress ; but as soon as the weather would permit I recommended his going to Wiesbaden, and remaining there two months, and if not well at the end of this time to go for one month to Carlsbad, the mineral waters of which latter place being highly stimulating will not admit of their being drunk for more than a short period with prudence. The patient obeyed. He might well do so, for his existence in his profession depended on his recovery. At Wiesbaden he placed himself under the care of Mr. Edwin Lee, and when three months had expired he found that he had no occasion to go to Carlsbad. I own I was greatly and most agreeably surprised when he returned early in the autumn without ailments, walked into the room, shook hands, and was a new man. This gentleman, on his return to India, married at Malta, and some years afterwards I heard was in perfect health.

A general officer, who had suffered much in the

Peninsular war, consulted me in March 1839, with Mr. Guthrie, after an attack of gout, rendered still more painful from its affecting the feet, which were still suffering from old and painful wounds. His strength was greatly diminished, and his power of movement almost gone. Stomachic remedies relieved his weakness of digestion; very small doses of colchicum and opium his pains; but where was his strength to be procured? It was spring. He went to Wiesbaden, drank the waters and bathed, gained great strength, and was persuaded, though he had no relapse, to go the succeeding year to the same baths. This gentleman never had any return of his disease; and eight years have elapsed, during which his health and strength have never suffered any diminution.

In persons predisposed to gout from hereditary causes, but who, by careful habits, have added nothing to this predisposition, especially in females, the following is a frequent form of indistinct gout. The joints of the fingers and toes are swollen, thickened, and painful—not acutely painful, but painful; and this is especially the case on rising in the morning, or going to rest in the evening, when the ligaments and tendons of the ankles and heels especially participate in the pain and stiffness. In such cases, the physician will find the patient with little appetite, the mind brooding over trifling miseries, and much pain in the smaller joints; there will be a sallow, not yellow, appearance of the countenance, and a discontented feeling, even though prosperity surrounds the patient: these complaints are often attributed to cold, and go under the vague name of rheumatism.

The following is an example of several cases of this disease.

A lady, the mother of several children, and about thirty-eight years of age, suffered much from dyspeptic symptoms, for which she had taken calomel in full doses, and blue pill in alterative doses, without relief. Her countenance was very sallow; she was unhappy, or rather irritable, and not to be pleased; all the joints of the fingers were slightly swollen, and very painful, and the ligaments of the ankles especially were so painful as to prevent movement in the morning and evening almost entirely; still there was no fever nor perspiration present.

In this latter case I had the advantage of the assistance of the late Sir H. Hallford. It was spring; and it was agreed that the following prescriptions should be taken, which were followed by the most marked advantage, viz.

A draught with the
Decoct. Mezereon * twice in the day.
℞ Extr. Acet. Colchici, gr. iij.
Pulv. Doveri, gr. iv.
Mane et vespere forma pilularum, sumend.

* The following is the formula :—

℞ Corticis Radicis Mezereon, ℥ij.
Aque bullientis, ℥xvi.
decoque ad ℥viiij.
et cola.
℞ Liquoris Colati, ℥jss.
Spt. Ammoniae Arom. ℥xxv.
Ft. Haustus bis in die sumendus.

It is most useful in chronic pains in the bones, in these indistinct gouty and chronically gouty pains.

When August arrived, the patient was able to visit Carlsbad, and there drink the waters, returning in a state of health quite unexpected as regards the real and permanent relief.

I say nothing in reference to the waters of Buxton, because Sir C. Scudamore has fully described their use, and likewise because the recent work of Dr. Robertson, of Northampton, puts the reader in possession of the cases most benefitted by these waters better than I can do, from his long experience.

It has appeared to me, that the patients who have benefitted from the use of Buxton waters and baths suffered more from rheumatism in its various forms than from gout; but gouty patients have, undoubtedly, derived great benefit from the same source.

But, as I have before remarked, it is especially to the cases where gouty or stomachic complaints are accompanied by gravel, or with large excretions of urine mixed with lithate of ammonia, or where small uric acid calculi are formed, that the waters of Carlsbad are found beneficial.*

Their great heat, combined with the large quantity of alkali contained in them, makes them well adapted to such cases, and twenty-five years ago, in Italy, I frequently met with men of rank from the North of Europe, suffering from calculous diseases in a greater or less degree, who made it a rule to visit Carlsbad annually for the sake of their health, and passed during their stay small calculi of lithic acid, while correcting the disposition to

* It is to be observed, that the word lithic, or uric, is used to denote one and the same acid.

this secretion : and I well remember a Russian nobleman, of rank so high as to have been Ambassador-Extraordinary to this court, who assured me he had gone several successive years to Carlsbad, and shewed me a large number of calculi of lithic acid of the size of small melon seeds, which he had passed each year while drinking the waters. It has already been remarked, that the lithic or uric acid passes out of the body, in the urine, in the form of lithate of ammonia, or of pure lithic acid. In a very severe form of gout, what may be called an inveterate case, I have seen more than a drachm of lithic acid passed in the urine in the form of rounded masses, rather less than the size of a peppercorn, in the course of two hours.

At other times the same acid is passed in concretions of the size and form of a millet-seed, and nearly of the same colour, and quite smooth.

Lastly, lithic acid is excreted by the skin almost always in acute rheumatism and often in gout, and occasionally, but very rarely, shortly before death.

In acute rheumatism it can be seen, mixed with soda, and it is said with lime, deposited in perspiration on the limbs, forehead, and face of the patient, as well as on the joints of the body. I have seen this rare occurrence in three cases.

This leads me to speak of a phenomenon in this disease of the highest importance ; of such importance that if all the steps in its production could be traced, a near approach might be made to discover the proximate cause of gout. In one form of gout, and in one only,

not only is lithic or uric acid deposited either simple, or with ammonia in the urine, often with other colouring matter ; but also in the joints, under the surface of the cuticle of the thigh, and under the cuticle covering the tibia, portions of earthy matter are formed. These are occasionally discharged simply by their perforating the cuticle ; at others they remain as irritating causes, when inflammation and suppuration take place, and they are found surrounded by pus forming parts of a small abscess.

Oftentimes they protrude, and are so innocuous that persons have boasted of being able to write with the friable portion of this deposit in the joints of the fingers ; and where the disposition to secrete this matter occurs it is singularly rapid.

About six years ago I visited a General officer, who had passed a large portion of his life in India, and was a martyr to gout. He shewed me his joints, filled with the secretion of chalk-like matter.

It was arranged that I should see the patient once in the week. I returned, therefore, on the seventh day after my first visit. He said, " Now I can prove to you " the rapidity with which these things are formed. Soon " after you left me, I struck my instep against a foot- " stool ; hence what you see took place : " and he shewed me a mass of irregular matter, like chalk, of the size of a pigeon's egg, attached to the instep, and partially covered by cuticle ; and all this had occurred in one week. This is an extreme case, but very large portions have occasionally been excreted from the joints in the course of succeeding years, generally

through the process of inflammation and suppuration.

I think the local disease which forms them is of a peculiar character, and deserving of a peculiar study and investigation, for I have seen the most severe cases of gout, proceeding most violently, and even after a time proving fatal, and others of many years' progress, in neither of which was there any tendency to the production of this secretion, nor did any formation of earthy matter take place at any period of such cases. In other cases, at the very onset, these depositions took place.

A similar deposition occasionally is seen in the larger joints, apparently without any previously painful symptoms, or the presence of inflammation; these take place especially in the knee-joint. It is said that these depositions are of carbonate of lime, but I do not know exactly on what authority this broad distinction rests, of the deposit of an earthy matter of different chemical composition in the larger and smaller joints of the body.

It has undoubtedly occurred to me to see two or three cases in the hospital, in which at an early period of life, and unpreceded, as far as the sufferer knew, by any pain or inflammation of the part, there were deposits of earthy matter in almost all the joints, so as to prevent motion almost entirely. These cases were very rare, and had no reference to gout.

I well remember two of these cases, in which, believing that these concretions were soluble in acids, I treated the cases with nitro-muriatic acid, but without

success. The use of the warm bath alone seemed to be attended with modified relief.

I repeat, such cases without being accompanied with, or preceded by fever, and under twenty-five years of age, are very rare.

The fact of the presence of concretions in the joints in gout early attracted the attention of physicians, but not until comparatively lately that of the more celebrated chemists.

Dr. Wollaston, in a paper in the Philosophical Transactions for the year 1797, first gave the true solution of the chemical composition of these bodies: he determined that they consisted of lithate of soda, both by decomposition and also synthetically, for he says, "The gouty concretion can be easily formed by uniting the ingredients of which I have found it to consist." Hence Dr. Wollaston suggests, that where remedies are used among antacids for the treatment of such cases, they should be chosen from the fixed alkalies (soda and potash) rather than from the absorbent earths, magnesia, lime, &c. &c. It has been recently believed that these concretions are most frequent in persons affected with albuminous urine. This certainly does not agree with my observations.*

Little is to be found in the hundreds of treatises on gout, either in English or French, on the internal

* I am indebted to my accomplished friend, Dr. Bence Jones, Physician to St. George's Hospital, for the following note on this interesting subject:—

Forbes in 1793 first conjectured that the gout stones contained a principle that existed in the urine. Fourcroy and Guyton de Morveau stated, that they consisted of phosphate of lime, and this was the received opinion, until Dr. Wollaston, in

treatment intended to prevent these deposits, or cause their absorption when secreted. As they are soluble

1797, gave the true composition. Since then, urate of potash, urate of lime, and chloride of sodium, have been found to be present with the urate of soda.

The following analyses, the one by Laugier, and the other by Wurzer, agree very closely.

	Laugier.	Wurzer.
Water	8.3	10.3
Animal matter	16.7	19.5
Uric acid	16.7	20.0
Soda	16.7	20.0
Lime	8.3	10.0
Common salt	16.7	18.0
Chloride of potassium		2.2
Loss	16.6	
	100.0	100.0

Both chemists found the half of the concretions they analyzed were soluble in boiling water.

To these analyses I have nothing to add, except that I have found the quantity of water in these gouty concretions to vary considerably. Though usually so hard and chalk-like, yet occasionally they are soft and diffuent; and this, even when I could detect no particle of purulent matter intermixed with the urate of soda.

I long since observed, that the urate of soda existed in such concretions in a crystalline state. Examined with a magnifying power of 320 times, a multitude of colourless needles, arranged in no regular form, are seen. These crystals I have never found large enough to be recognized as such without the microscope; but in a fluid gouty deposit, Dr. Simon of Berlin saw some urate of soda crystals which were large enough to be visible by the naked eye. He also found a few pus globules. In the most solid concretions he also has observed a crystalline texture.

I have never found pus globules mixed with the needles, though not unfrequently fatty matter has been present.

It appears to me, that the crystalline form indicates the deposit of these concretions from a fluid which contained the urate of soda in solution, and that that fluid must be the serum of the blood.

I have no further remark worth offering on these concretions, except, perhaps, that, so far as I have observed, they seem most frequently to form in those who have distinct traces of albumen in the urine, and in whom that secretion is usually very clear.

in the fixed alkalies, solutions of these have been recommended internally, but the reasoning by analogy of what occurs out of the body, in regard to its internal processes, is often a failure. I have seen liquor potassæ in full and long continued doses, given both in the disposition or diathesis which causes the deposits, and in cases where they have long existed, but in no case could I satisfy myself that any real advantage was gained. Lately, Mr. Ure has recommended the use of salts combined with benzoic acid, viz. the benzoate of ammonia, or potash.

He says, “ the graminivorous animals, as the horse
“ and cow, secrete from the kidneys a peculiar acid, the
“ hippuric. It is present in their urine combined with
“ soda. Now the hippurate of soda, which may be
“ considered the analogue of the basis of gout stones, is
“ an exceedingly soluble salt (requiring only two parts
“ of water at 60° Fah. to dissolve one), as are also the hip-
“ purate of potash and ammonia and of lime. Hence
“ it appeared probable, that were we to adopt such thera-
“ peutic measures as would determine the human kid-
“ ney to secrete this acid instead of the uric, we should
“ thereby in all likelihood control and prevent the
“ deposition in question.*

It would be presumptuous in me to comment on the chemical theory of Mr. Ure, and its truth; if the medicine is effectual I am too grateful for the assist-

* This Mr. Ure found to be the case, by taking into the stomach immediately after a meal a scruple of the benzoic acid.—“ On a new Method of treating Gouty Concretions, by A. Ure, M.D. A.M.”—Med. and Chirurg. Transactions, vol. xxiv. p. 31.

ance in the relief of disease to cavil as to the exact process which takes place.

I have used this medicine repeatedly in practice, in cases in which the small joints were red, swelled, and painful; or where fluid matter was deposited in the joint of the great toe soon after the paroxysm commenced; and also in cases where the lithate of soda existed in the joints of the fingers, and superficially immediately under the cuticle on the surface of the lower extremities; and my impression certainly is, that it is decidedly useful. It is my impression, that the early depositions have been arrested in their progress, and large depositions diminished, by the continued use of this medicine. It is a decided diuretic, acting in some cases of dropsy fully and freely, and is especially adapted to those cases where constant nausea, and occasionally vomiting, render the use of many medicines in the class of diuretics impracticable, and also, where diarrhoea exists, forbid the employment of saline diuretics.

Also I have repeatedly seen, by experiment at the hospital, that in dropsy with albuminous urine the albumen is greatly diminished under the use of the benzoate of ammonia. What is a recommendation also to its use in many of the cases mentioned above is, that it is not disagreeable to the taste.*

* The formula which I use is—

Benzoatis Ammoniae, gr. x.—xv.

Aquæ distillatæ. Syrupi, ʒss. M.

Ft. Haustus bis terve in die sumend.

In cases where its diuretic effects are most to be desired, advantage will be derived by adding Boracis, gr. v. to each draught.

In a case which I attended with Dr. Watson three years ago, a child of twelve

The local treatment falls necessarily under the care of the surgeon. It may be observed, that all stimulating applications seem to do harm, and poultices good. Endeavouring to remove the deposits (as the irritating causes) by force is attended with the worst consequences.*

After an acute attack of gout has passed away, or after repeated attacks of gout, the stomach, most likely from having in the first instance been the overloaded animal, becomes weak, distressed, and incapable of bearing what its owner is too anxious to consign to it. Hence vegetable bitters, in all forms, have been recommended; and the highest antiquity, when consulted, is found only to ring the changes on various vegetable bitters—through every age—at times forgotten; again revived,—under one name or the other, whether *Pulvis ex duobus Centaureis*,† or Portland powder: at the distance of centuries they are still recommended, and hence still worthy of consideration, as stamped with the seal of ages.

The late Duke of Portland, when travelling in Switzerland, after perpetual and severe fits of gout, was recommended a powder composed of several bitter and aromatic plants, which he recommended on his return home. The ignorance at first of its contents, and the fact that a nobleman of high rank, often

years old, labouring under universal anasarca with albuminous urine, the dropsy entirely disappeared under the use of this medicine.

* See a very good paper on the subject, from the pen of S. Carrick Moore, Esq. *Medical and Chirurgical Transactions*, vol. i.

† Caelius Aurelianus.

tormented with the disease, had derived benefit from it, produced a kind of furor for taking it. It being speedily hinted the medicine might *be dangerous*, awakened an excited interest: on inquiry, it was found to consist of remedies, which for two centuries had been given to restore the stomach and muscular powers, weakened by repeated attacks of the disease.

The following appears to have been assumed as the rule of practice of the ancient physicians, in the atonic state of the stomach which follows or accompanies repeated attacks of gout:—

“The kind of medicines in general use are those which moderately heat, and are bitter, or gently bite the tongue; for they are very agreeable to the stomach: they purify the blood, and comfort other parts; as roots of angelica and elecampane, leaves of wormwood, the lesser centaury, chamædrys, chamæpitys, and the like; also horseradish, watercresses, and scurvygrass.”—SYDENHAM. (Taken from the old physicians.)

The Portland powder consisted (to be taken fasting) of equal quantities by weight of the roots of the *Aristolochia rotunda*, and of the *Gentiana lutea*; the tops and leaves of *Teucrium chamædrys*, *Teucrium chamæpitys*, and *Chironia centaureum*. Every one of these ingredients individually had the reputation of ages in its favour. The *Teucrium chamædrys* was recommended by Vesalius, at the instigation of the physicians of Genoa, for the Emperor Charles the Fifth, when obliged to remain in that city from an attack of gout; and as late as the reign of Louis the Fourteenth, the

celebrated botanist Tournefort states that this remedy was still in great reputation for the cure of gout.

The *Aristolochia rotunda*, and the *Chironia centaurium*, were both recommended by Galen, especially the last.

But of all the remedies in this composition, the *Teucrium chamaepitys*, or ground pine, was the most celebrated. Among the physicians of the seventeenth century nothing was so frequently recommended as this bitter aromatic.

Among the earlier English physicians, making allowance for *some superstitions*, no work on gout can be found more complete than that of Sir Theodore Mayerne, physician to three successive English sovereigns, and their families. It would be very difficult to add anything to his history of the disease, even at this time of day. He speaks in strong terms of the *chamaepytis* : for example—

R Pulv. Chamaepytis, ʒss. s. s.
Liquorit. Hispanici, ʒij.
Betonicæ, ʒss.
Ossium Mespilor. ʒiij.

Omnibus in pulverem subtilem tuis cum q. s. terebinth venetæ, ft. pilul. a ʒj. vel. ʒij. quotidie tribus horis ante prandium exhibendæ post deambulando aut leviter se exercendo; illius remedii basis est chamaepytis quam non-nulli simpliciter terebinthinæ remiscunt. Addunt alii Betonicum. Theodor. Turqueti de Mayerne, Tractue de Arthritide.*

The great reputation of the Portland powder speedily declined: first, it was found that it was necessary to

* It appears that this remedy was to be used without intermission for a year, and in this manner likewise the Portland powder was recommended to be taken for months consecutively, without which permanent relief was not to be expected.

take it for a great length of time, at least a twelve-month, to insure success; in some examples it did not succeed, and the bulk of the powder was disagreeable even to the most enthusiastic votaries of physic.

Mankind in chronic diseases are soon dissatisfied with remedies which require time for their operation, and speedily listen to any accents of depreciation which relieve them from a daily trouble, especially if they hold out any more rapid means of relief. That the remedy did no harm, we have the clearest and most important evidence from an eye-witness, and a competent judge. "Etenim fama ejus vigeret in tot ægris, qui eo usi sunt, "*podagra vel mitior facta est, vel rarius repetiit, ut* "*vix possit dubitari, hos effectus isti medicamento* "*esse tribuendos. Quod autem ulla mala ex illo* "*orta sint, præter fastidium, quod modus nimios* "*attulit, mihi, quidem nec certum unquam visum* "*est, nec verisimile.*"*

Notwithstanding such assertions from one eminently calculated to judge, both from talents, character, and experience, a violent philippic was published against the Portland powder by Dr. Cadogan. He asserted, that of those who had taken the Portland powder many had within six years of the period been affected with apoplexy, followed, when it was not fatal, by paralysis; or within ten years at the farthest. Now this medicine is a tonic and stomachic, and yet the very same complaint is made against it, and the very same diseases supposed to be produced by it, as are laid to the faults of the preparations of colchicum, whose effects in the

* Heberden : Commentaria.

human system are precisely the contrary. Let us examine this. Gout is notoriously (with rare exceptions) a disease of middle age, and persons would not have recourse to the Portland powder, except in the intervals of gout. The good living which is mainly the remote cause of gout would not be left off, and the most dangerous periods for attacks of apoplexy are from fifty-five to sixty-five in all constitutions. This is precisely the period, after taking the Portland powder, or any other medicine, at which such illness would occur in persons who live well and are indolent, and from Dr. Cadogan's evidence, if judged of by experienced physicians, there is not the smallest reason to believe that the illnesses and subsequent deaths which he mentions had any reference to the Portland powder.

Many more remedies than I can name have at different periods been recommended in the intervals of gout for the cure of the disease.

Even very lately the infusion or decoction of the leaves of *Achillæa millefolium* have been recommended, and where a very excellent stomachic bitter is required, when attacks of gout have left a weak state of stomach, the infusion of the *Menyanthes trifoliata* has been found to restore the languid digestion and broken strength.

Other remedies have also had very great reputation in the treatment of this disease, always in the interval.

Among others, I must not neglect sulphur, which has been recommended by great authorities.

Dr. Cheyne, whose work on gout is well worthy the perusal of those who have time, and who do not

think it trifling to examine what has been written by men who in their day had the same character at stake as we have, speaks in high terms of the employment of sulphur.

“ From repeated trials I can recommend sulphur as
“ a most powerful remedy in the intervals of gout, for
“ I have known half a drachm of powdered sulphur
“ taken regularly twice in the day in a spoonful of
“ milk prevent the fit for many years, and lessen both
“ its pain and duration when it happened, for it moved
“ the body gently once or twice a day. I have in my
“ possession testimonials under the hands of some
“ treated and tended by myself, of others of undoubted
“ credit, witnessing to the great success in the intervals
“ of gout. Nothing hitherto discovered equals it,
“ obstinately persisted in.”

Of this extravagant encomium, I can only make the comment, that when slight attacks of gout have been connected with piles, I have seen relief from this measure, but not having seen it administered in the manner which Dr. Cheyne recommends, I cannot speak favourably of it from my own knowledge.

Still, a very celebrated remedy, known under the name of the “ Chelsea Pensioner Gout Powder,” is formed on the principle of the old physicians of the seventeenth century, and resembles in its object what has been recommended by Dr. Cheyne.

I am obliged to my kind and distinguished friend and colleague, Mr. Keate, senior surgeon to St. George's Hospital, for the formula for the preparation of this

medicine, which, as a magistral preparation, has had great fame.

Rhubarb,
Sulphur,
Nitre,
G. guaiacum, of each two drachms.
Treacle, four ounces.—M.

One or two teaspoonfuls to be taken night and morning.

The usual practice, and a most effectual one, at present, in the intervals of gout, is to endeavour so to act upon the stomach as to prevent the formation of acid, which first arising in the stomach, seems to point out the morbid condition of the secretions of the bowels, kidneys, and skin.

For this purpose, various combinations of a fixed alkali with a vegetable bitter, some warm stomachic made gently purgative, seems to fulfil the intention of the ancient physicians with the alterations shewn by modern chemistry. Thus, rhubarb in all its forms has been joined with soda or potash, and with cinnamon or ginger.*

* Thus, the combination called Gregory's Powder †—

Pulv. Rhei gr. iii.—vi.
Magnes. Carb. gr. vi.—xij.
Pulv. Zingiber, gr. ii.—v.—M.
Ft. Pulvis.

A pill composed of five grains Pil. Rhei Comp. taken in the same manner, is also useful, but is deficient in the alkali.

The following taken immediately before dinner is also very effectual, but in this case a wine-glass of lime-water should be taken after each meal for a short time.

℞ Extr. Aloes Aquos,
Extr. Rhei aa. gr. ij.
Piperis Cayensis, gr. i.

Ft. pilula indies ante prandium, sumend.

† See page 4 of this work for the powder which I generally use, and from which I have seen the best effects.

This is recommended to be taken habitually, either at night or before the principal meal, for several weeks.

The advantageous use of rhubarb in such cases has been very long known, and the combination is so simple that it appears singular it should not until about thirty years ago have become a more general practice. Rhubarb, like everything else, was often used successfully in such cases by pretenders to science, but was rejected when prescribed by those who had passed their lives in the observation of disease.

“ I knew a noble Lord,” says Dr. Cheyne, “ of great worth and much gout, who by taking from the hands of a quack a drachm of rhubarb, tinged with cochineal to disguise it, every morning for the space of six weeks, lived in health for four years after, without any symptoms of gout.”

I have spoken of the use of warm-bathing in the chronic forms of gout, but for centuries an opposite treatment had been recommended, with great effect in adding strength to the system when the paroxysm is quite over, and some old physicians, both by precept and example, recommended it during the fit itself, in the same manner as phlegmonous inflammation is treated, by cold either directly applied, or by evaporation.

Nay, Dr. Heberden tells us, that the greatest name in European physic, the celebrated Harvey, was in the habit of plunging the gouty part in cold water, on being threatened with a paroxysm.

“ Magnus ille Harveius circumeuntis sanguinis
 “ repertor, ut a propinquis ejus accepi, protinus ut
 “ podagram advenientem sentiebat crus affectum in
 “ frigidam immittere solitus est, et eo pacto dolorem
 “ avertere.”

* * * * *

“ Nollem laudari Harveii exemplum, et aliis ad
 “ imitandum proponere; quamvis ad octogesimum
 “ annum vixerit et non tam morbo quam senectute
 “ extinctus sit.”—*Heberden: Commentaria*, p. 46.

And we are informed on good authority, that Queen Caroline, consort of George the Second, in order to enable her to accompany the King in his long walks, by which she in a great degree maintained her complete and salutary influence over him, was in the habit of immersing her gouty foot and leg, when much swollen, in cold water; nor, though her death was rather sudden, could it be attributed in any way to such a practice.

Dr. Cheyne also approves of the cold bathing *after* the fit.

“ I know an ingenious physician, who after a fit of
 “ the gout goes daily into the cold bath, till the part
 “ has recovered its natural strength, which constantly
 “ happens in much less time than it would do
 “ otherwise; and many others who are considerably
 “ strengthened and preserved from catching cold by
 “ cold bathing in the intervals of gout, though this
 “ practice is very cautiously to be gone through by the
 “ old and weak.” *

* Cheyne on Gout, l. viii. page 88.

Of the justice of this last opinion I entertain no doubt; and both the shower-bath and cold bathing, in the intervals of gout, conjoined with temperance, especially in food, and great moderation in the use of wine, has, and assuredly will, restore many a constitution after the first fit of the gout.

The efficacy of cold bathing in restoring the bodily strength has never been better understood than in this country, where hundreds of thousands annually recruit their broken spirits and impaired strength by cold bathing in the sea, or the use of the salt water shower-bath.

In cases of great irritability and sensibility of the nervous system, it is notorious that the application of cold water, either in the form of ice, or in the cold affusion, is of the greatest service.

But the question has recently been mooted, as to the use of cold water generally, and both internally and externally, in the acute stages of gout.

In the acute stage of fever, under certain rules,* the late Dr. Currie, of Liverpool,† recommended the application of cold water to the surface, and of the cold affusion, in fever, which were fully recognized by the profession after much contention, and are still used in the hot stage of scarlatina with the most certainly beneficial results.‡

* The principal of these rules was, that when the cold was applied, the heat of the body should be steadily above the natural standard—98 Faht.

† Dr. Currie's most beautiful book, called modestly "Medical Reports," should be in the hands of every young physician. It is really a medical classic.

‡ I witnessed, and indeed in many cases officiated in, the practice of cold affusion

As applied to gout, I have already shewn that great men, few and far between, were in the habit of having recourse to it, but it never became, even among our ancestors, a general practice, and, in fact, was looked upon as a peculiar and hazardous endeavour to escape by a short cut from a long and painful illness. It appears, also, that at some watering places, either from superstition, or ancient custom, that which is now thought a novel practice was of ancient employment.

In a letter to the Rev. Mr. Cole, dated June 5, 1775, Horace Walpole says, “ Dr. Heberden, as every
“ physician to make himself talked of will set up some
“ new hypothesis, pretends that a damp house, and
“ even damp sheets, which have ever been reckoned
“ fatal, are wholesome : to prove his faith he went into
“ his new house totally unaired, and survived it.”

“ *At Malvern, they certainly put patients into sheets
“ just dipped in the spring.*”

In the year 1803, Dr. Kinglake, of Taunton, broached a theory that gout was simply and solely inflammation of the ligaments, and tendons, and joints, just the same as if induced by accident and injury ; that if this inflammation continued for a long time, and especially if exasperated, the system suffered secondarily,

at Edinburgh, in the typhus fever of 1817-18. In no one instance did the practice of Dr. Currie, under his rules, do harm ; and in every case the very great diminution of fever was the consequence, the pulse often falling twenty, and sometimes thirty beats in a minute, and the animal heat two degrees Faht.

Nevertheless, in the south of Britain (excepting in the case of scarlatina, in which the heat of the skin rises higher than in any other febrile disease) it has never become an habitual practice.

as it would from inflammation and ulceration of cartilages when originated in these parts of the body. Dr. Kinglake did not recognize any constitutional taint as preceding or giving rise to the local inflammation : with these views he recommended strictly antiphlogistic remedies, and, above all, cold in the form of ice, or of evaporating lotions, to the inflamed part. Notwithstanding cases were brought forward which strongly inferred bad effects from this treatment, Dr. Kinglake persevered. His theory was ably opposed by Mr. Ring, and for many years at least has attracted no attention. Even at the very moment of the popularity of the system, cases were published of its dangerous employment.*

Recently, however, cold in various forms, or rather, I should say, the effect of the application of cold water to the surface of the body, has been recommended for the cure of many diseases ; nay, all diseases, but especially in reference to gout.

Nor is the use of cold water restricted to the effects which may be produced by it at different temperatures, when applied to the surface of the body.

It has also been recommended, that cold water should be drank constantly, regularly, and in large quantities, daily, as a cure for this disease.

Some unhappy persons, occasionally from idleness, occasionally from habitual solicitude about their health, became greatly startled by this new theory,

* See Edlin's case.

and much struck by it, especially as it is diametrically contrary to what they had learned from the physicians to whom they had previously applied. Mr. Abernethy, a man of undoubted science, had always inculcated the propriety of taking only a small quantity of fluid daily; and other medical men of great practice, and who enjoyed great public confidence, restricted their patients to a few ounces of fluid daily,—a practice most painful to the habitual tea-drinker, who never swallowed less than a quart of warm fluid daily, including the quantities taken daily at both meals, and which habit assimilated more nearly to the French practice, in which the principal medical effects are produced by large quantities of liquids, in which herbs of little known efficacy have been infused.

Whatever mankind might think of such great varieties of opinion in fundamental doctrines, true it is, that the use of water externally and internally, without admixture of remedies, has lately attracted the attention of the public in the greatest degree.

M. Priessnitz, in Germany, has become the head of a new sect of medical philosophers, who restrict all treatment of disease to the due application externally and internally of cold water, or rather of alternating temperature, as far as regards the surface of the body.

Observations on the cold hip-bath, one of the common remedies in this school, will not detain us long: it has ever been the practice in England for many years to employ this remedy, in both sexes, and with the best effects, in local relaxation.

But the principal novelty, as applied to practice, is from the sudden alternation of heat and cold; in what is called "packing in the wet sheet." The patient is wrapped in a wet sheet, as we have seen was the custom at Malvern, then covered with flannels, or the warm bed coverings used in Germany: profuse perspiration is the consequence, and when the surface of the body is thus covered with perspiration, the body is exposed to a current of cold water, or immersed in cold water, after the practice of the Russian baths. This is a most formidable remedy; doubtless it possesses the giant's strength, but it is not used with a giant's mercy. In the first stage (the sheet and blankets) immense perspiration is produced; and this in many cases, as in old and chronic rheumatism, in stiffness of the joints, in the results of paralysis where the causes have been removed, and also in inveterate scaly diseases (as ichthyosis) in the human body may be of the greatest advantage, and indeed a most powerful remedy and adjunct to other means of cure.

But what if this powerful remedy is applied from ignorance of disease—of anatomy, but especially of pathology; that is, of the changes which the internal organs of the body undergo by disease? What shall we say,—what will any sane observer say,—when such powerful agents are employed without any distinction, whether in enlarged hearts from rheumatic disease, or from disease of the valves, or in the endemic disease of our country, tuberculous disease of the lungs, whether quiescent or obvious, or in any organic disease of the internal viscera? What, I repeat, would

any observer say, but that the means were likely, applied with care and great discretion, to be useful ; applied without such knowledge, fatal and most cruelly fatal.

I refer the reader to Dr. Herbert Mayo's book on this subject, which is very clear ; and the more so, as Dr. Mayo is a good judge of disease, an excellent pathologist, and of experience from the high office he held in this country.* I may be permitted to say, that while the greatest disposition to praise the system exists in the author's mind, the result of the development of the views of the hydropathists leaves nothing very consolatory to those who look for a new, certain, and obvious means of cure.

There is one point I must refer to before leaving the question of the external employment of water, whether in steam or cold affusion to the surface.

It has been stated, that the application of the wet sheet, with the superincumbent blankets, produces great perspiration. At first this may relieve through that great apparatus of excretion, the skin, most effectually, as warm baths or vapour baths do in our own practice. But if carried far, the vessels of the surface are weakened, and that happens which happens in nature where the circulation in the extremities is weakened—low inflammation is set up in the cellular membrane, and biles,† or, in a very worn out state of the system, what are called carbuncles, are formed.

* Surgeon to the Middlesex Hospital.

† Bile, a sore angry swelling, (from the Saxon). See Johnson's Dictionary.

In early life, when the body has grown very rapidly, and is equally incapacitated for long-continued exertion or fatigue, in the spring and the autumn, crops of these painful biles appear in different parts of the body, generally in the flexures of the joints; and in advanced life such formations occurring in broken-down constitutions, are often accompanied by great depression, and not unfrequently, under the form of carbuncles, prove fatal.

Such a disease, in our practice, is met with what will produce healthy action in the swellings in the cellular membrane, and obviated as to their return by strengthening medicines with alkalies.

Now, would it be believed, that when the vessels of the skin have been over exhausted by repeated sweating, and this disease is produced, that persons have characterized such appearances as a *crisis*, a something which eliminates from the blood its morbid properties, and restores the patient to health? The disease is made first, and then it is used as a visible demonstration of the cure.

Fielding said, long ago—

“ He made the giants first, and then he kill'd 'em.”

The unfortunate part of the whole is, that these critical swellings have often been very troublesome, and in a few cases *fatal*!

There is, however, no doubt that this treatment is a powerful addition to the cure of disease when used carefully, gently, and above all with a knowledge of

internal disease—without which it is as a sharp instrument in the hand of a savage.

But the system of hydropathy does not only inculcate cold applications and sudden alternations of temperature; it professes to cure internal diseases by drinking regularly and profusely of cold water. Some well-known facts also are in favour of this view of the case.

It has been a very old and notorious remedy for constipation to drink a tumbler of clear spring water on early rising in the morning; and drinking tepid water, or even cold water, in large quantities after a heavy dinner, has been considered useful, nay has been recommended, by many of the older physicians. The habit in England of drinking several bottles of soda-water in the course of the day cannot be forgotten. In the present case, however, several pints of cold spring water, both fasting and after meals, have been recommended. Dr. Herbert Mayo, who has witnessed this practice, says, as far as regards our countrymen, that the taking large quantities fasting (say a pint or two) has disagreed with many. He thinks, however, that by substituting large quantities of water during the day, and especially at meals, in the place of wine, or stimuli, not only is the health greatly improved, but that the gout may be *cured*. He expresses his conviction of this fact. But the system has been established too short a time for certainty. What is the period of ten years or fifteen years in the life of man sufficient to be *secure* from an attack of gout, or to establish a certainty? and yet this period of time

has scarcely elapsed since the promulgation of the new treatment.

Now let us look at the question as it applies in general, and as regards that class of society who are affected with gout.

A man worn out with fatigue, and living in this close town,—perhaps an artist, with warm and vivid feeling, toiling all day, and finishing the evening with supper and spirits and water, and perhaps cigars,—becomes hypochondriacal, loses appetite, and loses spirits. He is recommended to a hydropathic institution in the country. He *must* remain there a fortnight or three weeks. He is at leisure; he uses the alternations of heat and cold; the skin acts plentifully; he has good wholesome diet, not in excess, meat and vegetables, in a beautiful country, with clear pure air, and early rising, and cheerful society, &c., drinks water in considerable quantities, and no wine. Can anything be imagined more likely to restore his spirits, tone down his irritability, release him from anxious thoughts, at the very time that the novelty of the treatment makes him consider himself to be in some degree an object of observation?

Can any one doubt that this must, in many cases, be useful?

But, had the seeker after health a diseased heart or diseased lungs without his knowledge, or repressed gout, diabetes, or diseased kidneys, or dropsy from diseased liver, would these effects have been produced? Certainly not. It will restore impaired and faded strength, and with effect exactly proportionate to the

mental wear and tear of the sufferer, but nothing more; nay, it will do harm if urged beyond the circle of functional disorders.

In gout acquired by bad habits, but not having occurred so frequently as to have broken the constitution, no doubt can exist that moderate habits, and drinking only water as a beverage, would arrest and cure the disease. It is doubtful whether in such cases this remedy ever has, or ever will be, regularly had recourse to beyond a few months of restored health; but no doubt remains as to the efficacy of such a course.

But in the case of hereditary gout it is widely different. I believe that in very many cases the greatest degree of temperance has been observed, but without preventing the return of fits. The morbid impression has been made, and what might have prevented its propagation ceases to cure it. And even in these cases absolute adherence to water seems not even to be useful. Many persons are born of gouty parents, of a weakly constitution, and require, at least in civilized life, support to enable them to go through the heavy duties which devolve on them.

Gout is not *the result* of a natural state of things; nor do I believe it ever exists in a state of nature. It is the scourge of civilized life; and hence is mixed with the pleasures and enjoyments of the table, and the cares and exertions of ambition.

Let us take for example the case of the great Mr. Pitt, who inherited from Lord Chatham gout in an inveterate degree, with a feeble constitution, often

referred to in his father's letters : with this feeble constitution he succeeded to the highest political power, at twenty-four years of age. It is notorious that he was obliged to take large portions of stimuli to enable him to make his speeches in Parliament, and which mainly contributed to the immense influence he attained. Persons are still living, who are witnesses of the means which he adopted to support himself during such exertions. Can any comparison be made, as to the means of procuring ease to this man, and to one who can live easily on a little, far from ambition or exertion ; or does any one believe that Mr. Pitt would have been cured by the cold-water system ?

Nothing is so easy as to fly to extremes in reasoning.

Oh ! such a one would never have had gout, if he had lived, as Cornaro did, on a small portion of meat daily ! Nor would he have been as happy as Cornaro. But could Cornaro, night after night, have continued to oppose the wave, ever rolling onward, of the political world in the House of Commons ? or used his vast powers daily and nightly to overlook the hundred possessions of Great Britain ? I think not. And though very unwilling to deviate in my opinions from the great first principles of our art, I still think those principles cannot be carried out abstractedly, but modified according to the condition of society to which they are to be applied.

Before concluding the practical considerations of this disease, I may be expected to say something on the

subject of the cutaneous complaints which occur in the interval of gout, or which alternate with paroxysms of this disease.

When it is considered that gout is generally a disease of advanced life, and that the functions of the skin are greatly altered as age advances, it may be doubtful how far many cases of chronic eruptive diseases are at all connected with gout.

It is quite true that many eruptive diseases (all those of the herpetic kind, for example) are connected with acid secretions of the stomach, and cured by antacid and slightly alterative remedies ; and such acid secretions are more frequently present to gouty habits : hence a link of association may be found between the two diseases.

Very often, however, I have been consulted for such eruptions, as being part of gout, which, in fact, differed in no way from the ordinary appearance of similar diseases at an advanced period of life.

There are two forms of cutaneous disease, one very common, one comparatively rare, which I have seen in the intervals of gout.

The first is psoriasis, but psoriasis which at some periods of its appearance is difficult to distinguish from impetigo ; in its scaly state it is psoriasis, but at some time during its progress there is an exudation from minute pustules which would take it out of this genus. It is accompanied with great irritation, and affects almost exclusively the extremities ; not unfrequently fever is produced from the continuance of constant irritation.

Local applications are injurious ; the mildest only can be endured. The sprinkling the part with hair powder, and the application of the Unguent. Acet. Plumbi, can best be borne. But, internally, the remedy from which I have seen the most satisfactory effect is from the use of pitch in large doses.

I will not diverge here to remind the reader of the great efficacy attached to tar water as a stomachic in the last century, nor recal to his mind that *some advantage* may be derived from a remedy so long used and so much praised : but I can assert from much personal experience that the use of this remedy is most effectual—that both in the hospital, and out of it, I have seen cases of the most decided cutaneous mischief cured by the use of tar. It is more effectual when the disease appears to be connected with disorders of the stomach, and the more as it approaches in appearance externally to the scaly or squamous eruption. Unfortunately for its popularity, it must be taken for a long time together, and in large quantities : on the other hand, this is the only inconvenience which results from its employment.

In no instance has it ever produced, in my experience, when taken for several months, the smallest bad effects. On the contrary, the general health improves : if any obvious effect be produced, excepting the cure, it occasions a slightly relaxed state of the bowels, or some perspiration.

The following is the formula which I use :

R Picis Liquidæ, ℥ij.

Pulv. Glycyrrhizæ, ℥j. M.

Ft. pilulæ xvi. æquales quarum capiat duas vel tres ter in die.

In some of these scaly eruptions great advantage has been derived—nay, perfect cures have been made—from the use of the arsenical solution internally, either in the decoction of dulcamara, or in distilled water; washing the parts at the same time twice daily with the decoction of dulcamara.

But it has happened, occasionally, that these remedies have disturbed the general health, so as to oblige their discontinuance.*

Occasionally the use of the solanum dulcamara will alone cure the disease.

If the smallest pain or uneasiness is felt in the region of the stomach during the employment of the arsenic, it must be immediately discontinued.

The other cutaneous disease connected with gout, of which I have seen only two or three examples, is termed Pompholyx.

The body, but especially the arms and legs, are covered with vesicles or bullæ from the size of a pin's head to that of a large pea, and even of a larger size. There is no fever. These vesicles break and discharge, leaving deep scales. The patient thinks he is getting better, when all at once, in a single night, another crop of bullæ make their appearance. In two cases, after such an attack the patient was free from gout in one instance five, in the other six years.

Arsenic alone has no effect on this disease, nor has mercury; external applications, from the extent of the

* \mathfrak{R} Liquoris Arsenicalis, $\mathfrak{m}\text{vi}$.

Decocti Solani Dulcamaræ, $\mathfrak{z}\text{ij}$. M.

Ft. haustus bis die sumendus.

surface, are manifestly inapplicable. But what these severe alterative remedies will not do alone, they effect when taken during the same course. Thus, I have seen the most obstinate cases speedily give way under five minims of Liquor. Arsenicalis, twice in the day, in distilled water, and from three to five grains of the blue-pill at bed-time, with or without a purgative as the bowels may require : or the blue-pill may be given on alternate nights.

I have seen cases which had been very troublesome for several months, cured in little more than a week by this practice, although the remedies separately had been already tried without effect.

I have now finished the more important observations on this disease, which might have been extended to much greater length ; but such an extension is contrary to the plan I proposed in putting these "Thoughts" on paper. They are intended to make others *think* also, on the treatment of this frequent, painful, and, in many cases, intractable disease.

"Toutes les lésions organiques observées chez les aliénés, se retrouvent dans les cadavres d'individus qui n'ont jamais eu de délire chronique : beaucoup d'ouvertures de corps d'aliénés n'ont présenté aucune altération, quoique la folie eut persisté pendant un grand nombre d'années. L'anatomie pathologique nous montre chaque partie de l'organe encéphalique altérée, suppurée, détruite, sans lésion chronique de l'entendement."—ESQUIROL : DES MALADIES MENTALES, Vol. I. p. 113.

III.

ON MENTAL DERANGEMENT,

ESPECIALLY THAT FORM TERMED MELANCHOLIA, OR
THE ALTERNATION OF MELANCHOLIA WITH VIOLENCE,
TERMED LYPOMANIA, OR SUICIDAL MADNESS, ESPE-
CIALLY IN REFERENCE TO THE TREATMENT OF THIS
FORM OF DISEASE, BY THE EMPLOYMENT OF OPIATES,
OR OF THAT CLASS OF MEDICINES CALLED SEDATIVES.

WHATEVER differences of opinion exist in reference to the minute anatomy of the brain, many facts are established. It is certain that, in this organ, there exists during life perception and volition; an object is reflected through all the different organs of sense on the brain, and perceived by it as light is reflected on the retina and perceived by the brain. The

orders to all distant parts issue from this organ. These, then, perception and volition, are functions of the brain : they may be highly increased in force, as when the brain receives objects transmitted and perceived so quickly and rapidly that scarcely a momentary trace exists, or orders are transmitted to the muscles, so that a rapid and violent succession of ill-regulated actions takes place.

Again, these functions may be greatly reduced in force, almost entirely ; in which cases loss of intellect, or even idiocy, may be produced.

Can these functions be greatly increased, or greatly impaired, without disease of the organ of the brain ? I am satisfied they can, and that in such cases a very large proportion may be cured.

Where perception and volition are sharpened beyond all measure, there are remedies which quiet pain and diminish sensibility, in many cases not absolutely removing the pain, but preventing the brain from perceiving it in a highly aggravated form : thus, in paroxysms of gall-stones, or sciatica, or in nephritic colic, the pain is removed partly by the solution of spasm afforded by the remedies, partly from the increased sensibility or perception of the brain being diminished.*

In inordinate actions, also, the causes being investi-

* While this is passing through the press, a recent discovery of the transient power of the suspension of sensibility by the inhalation of ether has been presented to the world.

Its immediate and great benefit has been established ; but what a hope does it not present to long and painful illness : *e. g.* to hydrophobia, or the dreadful disease called chorea arising from fright, &c. !

gated, appropriate remedies may be found: such as the shower bath, metallic tonics, and the like.

Mental derangement is one of these forms of increased, or irregular or diminished perception and volition, and it exists in some instances secondarily to diseases of organs at a distance, as of the uterus or stomach, or in cases of fever from the poison of the atmosphere, or putrid miasmata from different sources. The brain, like other organs of the body, is liable to inflammation, and which requires to be treated as inflammation is treated in other parts of the body; and it is singularly liable, from the particular arrangement of its blood-vessels, to disturbance of the circulation; either the blood not finding its usual ready flow into the right side of the heart, from some obstacle in the complicated arrangement of its veins (sinuses), or from disease of its arteries, which unite (anastomose) one with another, in a most remarkable manner. The diseases of the coats of these vessels give rise to some of the most serious diseases of the brain.

As life advances, that portion of the human body most influenced by physical laws tends first to decay. The elasticity of the larger arteries becomes diminished, by, first, soft fatty matter (termed atheroma) deposited under the inner coat, or by bone itself. The tube, previously elastic, and easily and equally distended by the current of blood, becomes unequally distended, and even brittle in parts, so as to give way under any considerable or sudden acceleration of the circulation. When such an accident occurs in the brain, blood is thrown out, the patient becomes senseless, and when

proper remedies have been applied, awakens as from a trance, with much confusion and distress, and often pain in the head, and finds the arm and leg, on the opposite side to that in which the vessel had burst, deprived of motion, and often, in a great degree, of sensation.

An apoplectic seizure has terminated in palsy !

Hence it is not necessary for this to occur simply from an over supply of blood in the system, and explains why it frequently happens in poor and spare habits of body, provided that the change noticed in the arterial system has commenced.

I only allude to this, however, to shew that the part of the brain where these accidents occur may be seriously injured, without (beyond the first moments of the attack) deranging the mind. If the blood be poured out in small quantity, the attack is recovered from in a greater or less proportional space of time ; but the palsy remains for years, shewing the severe injury sustained. Notwithstanding this, mind, perception, and volition, are not injured (at least in by far the greater number of instances); the patient soon reads and understands as usual, gives his orders, takes his exercise, performs his religious duties with quite equal intelligence to that which he possessed previous to his illness. By some this has been explained, that the brain is a double organ ; but the experiments of Fontana and others have proved that a very large portion of both hemispheres of the brain may be removed without any visible disturbance of the intellect of the animal before inflammation ensues.

If, however, a similar accident, rupture of an artery,

occurs in the cerebellum, or at the base of the brain, life becomes almost immediately extinct.

The process of destruction which has occasioned the disease which we commented on, may also go on in the minute branches of arteries in the brain, and then a softening or pulpy condition of the brain ensues, gradually extending. If this be in the posterior portion of the brain, various accidents occur; palsy of the lower extremities, giddiness, deafness, insecurity in walking, and by degrees the mental powers become diminished; perception in a great degree fails, volition is imperfect, the memory is much impaired; and these symptoms gradually increase until death closes the scene.

Thus, lesions of the important portions of the brain where the nerves of sense arise, or injuries of the cerebellum, are almost immediately recognizable by their severe effects on the body.

Such a condition, if united with mental derangement, is necessarily fatal. Here we have seen one portion of the brain greatly injured without the mind suffering, and in another the mind gradually becoming obscured, especially as to memory, by destruction operating in another part of the brain. Tumors, exostoses of the skull, malignant disease, (*fungus hæmatodes*) tubercles, all exist likewise in the brain of lunatics, but they also exist frequently in the brain, and go on to produce disease in distant parts of the body, without mental derangement being the consequence.

If, then, there is no evidence of morbid growth or change existing, marked by palsy (especially of the lower extremities), fits, loss of memory, impaired vision,

deafness, &c., we may fairly believe that the mental derangement is the result of disturbance of the functions of the brain, either originally, or secondary to disease of some important organ at a distance, and we are bound by every sense of duty, by every reason which ought to direct the conduct of the physician, to apply the resources of our art to its cure.

Certain forms of melancholy or mental derangement which I proceed to describe are the most usually amenable to remedies.

During the eight years I filled the office of one of the Metropolitan Commissioners of Lunacy, I took great pains to inquire whether any or what medical treatment was applied to the various forms of this the most afflicting disease in human nature.

In almost every instance nearly the whole treatment resolved itself into what is called moral, except only the obvious attention to the bowels, or to any intercurrent disease.

The few exceptions to this observation was in the vast lunatic establishment belonging to Dr. Warburton in Bethnal Green, called the Red and White Houses, at that time under the immediate medical management of Messrs. Beverley and Phillips. These gentlemen had been struck with the advantages derived from the use of the acetate of morphia in the treatment of bad, and especially suicidal cases of mania. They very obligingly gave me a statement which I incorporated in my Croonian Lectures, delivered before the College of Physicians in 1831, and subsequently published them in the

little work entitled the Medical Treatment of Insanity. They are as follows :—

“ We have found the acetate of morphia useful both
“ in the excited and the low form of insanity. We
“ have also found it useful in cases of fixed delusions,
“ but not of any great standing, and more useful in
“ the low than the excited form of the disease. Of
“ five cases of melancholy, three got well ; the remain-
“ ing two are certainly improving under the use of this
“ medicine. Of five cases of excitement, two were dis-
“ charged cured ; one remains much improved ; two
“ received no benefit. It is necessary to observe, that
“ we have used this medicine in several cases without
“ taking notes, and the result was similar to the two
“ cases mentioned, that is, without benefit. It ap-
“ peared to us, that morphia did not produce the same
“ good effect in excited as in other cases, unless there
“ was an occasional interval of reason. In the cases
“ mentioned, we have commenced with a fourth, and
“ have not found it necessary to exceed half a grain ;
“ at present we have a patient taking half a grain dose
“ every night, with decided advantage, and we think
“ the case very interesting, and proving the extraordi-
“ nary effect of the medicine in cases of melancholy.

“ A woman, of the age of thirty-six, the mother of
“ four children, was attacked with depression of spirits
“ while pregnant with her last child. She did not feel
“ the attack before she quickened, but immediately
“ after : she had a strong desire to destroy herself and
“ children. This continued during pregnancy. After
“ she was delivered she became worse, and attempted
“ to commit suicide several times ; and described her

“ feelings ; which is not common in such cases. She
“ continued in this state, not fit to be trusted without
“ a strict watch. She was sent here about two years
“ ago ; and what is extraordinary in her case is, that
“ about noon all the feelings of the desire of self-
“ destruction left her. This occurred within the last
“ three months ; from which time they have remained
“ the whole of the day. Various means were tried, with-
“ out effect. Our first idea, from the regularity of the
“ attack, was to treat her disease as an intermittent ;
“ which failed. About a fortnight ago we gave her
“ the morphia, beginning with the fourth of a grain,
“ and gradually increasing it to half a grain. After
“ taking the second dose, one-third of a grain, she slept
“ all night ; in the morning she was cheerful, without
“ feeling the propensity to destroy herself. The third
“ day she had a return, which lasted until noon ; the
“ dose was then increased to half a grain. The fourth
“ morning she had not any return, and continued well
“ until the fifth day after the half-grain dose was given,
“ when she had a return from five o’clock in the morn-
“ ing until nine ; a paroxysm three hours shorter than
“ any of the preceding. She is now free from any
“ desire to destroy herself.”

Soon after this, I had an occasion in private practice of testing the truth of this practice ; and since that period so numerous have been my opportunities of observation, that it is my intention to enter fully in the following pages on the subject, hoping that I have arrived at conclusions which will enable me to point out the cases in which such treatment is, or is not, admissible ; and especially where reasonable hopes may

be entertained of its success. Moreover, the little book which contained Messrs. Beverley and Phillips' experience is out of print, and as fifteen years have elapsed since its publication, during which I have been anxiously watching the result of cases, especially of the recoveries, I can now with greater certainty point out the best mode of using this particular treatment. Upwards of seventy cases during that period of time have recovered; and I consider no case to be called a recovery unless two years at least of unabated health have elapsed since the treatment concluded. In nearly twenty cases the treatment has failed, or only given temporary relief.

The treatment of melancholia and of hypochondriasis by sedatives was not unknown to the Romans, as we find (and it is remarkable it should have been forgotten) that the Romans raised a statue to Musa, the physician of the Emperor Augustus, for curing his sovereign of melancholy, by the use of extract of lettuce.*

In modern times the use of opium has not only been neglected, but by some greatly blamed; even by Morgagni.

“ With respect to opiates, which I have supposed
“ might often be useful in cases of mania, I believe
“ they can seldom be properly employed in the partial
“ insanities of the melancholic, *except* in certain
“ cases of violent excitement, when the melancholia
“ approaches nearly to the state of mania.”—*Cullen's First Lines*, vol. ii. page 332.

* The Lactucarium, or Extract of Lettuce, prepared by the direction of the late Dr. Duncan, sen. of Edinburgh, contained morphia. This has been proved by analysis.

And yet every now and then we meet with wonderful relations of cures by this very drug, in hands of physicians so well known and so skilful as to leave no doubt of the fact.

Vanswieten mentions a lunatic servant girl who was cured by drinking accidentally a large quantity of opium,* dissolved in vinegar; and Mons. Odier, of Geneva, reports a cure of *a case of melancholy* by opium, *carried by degrees* to the large quantity of thirty grains.

Even in London some cases have occurred occasionally in the hands of men of great practical skill, which required and received the appropriate treatment. Thus I am well acquainted with the case of a lady who fell into a melancholy state of mind many years ago, which lasted nearly seven years. From her station in life she received the prescriptions of various physicians in vain; at length she was cured by a *dose of Battley's Liquor. Opii Sedativ.* given *every night*, for several weeks. This practice, which effectually cured her, was recommended by Mr. Pennington.

About two years ago a slight relapse took place, and was removed by similar treatment, under my care.†

“ Dans cette mélancolie,” says Esquirol, “ vulgaire-
“ ment appelée nerveuse, les évacuans augmentent le
“ mal; le médecin doit se proposer de modifier la sensi-
“ bilité, de calmer l’excitation nerveuse, par les moyens
“ hygiénétiques déjà indiqués, par les boissons adoucis-
“ santes, *par les narcotiques, par l’opium*, par l’usage

* A scruple.

† There has, a short time ago, appeared a most interesting work, by Dr. Joseph Williams, “ On Procuring Sleep in Insanity.” This gained the Lord Chancellor’s (of Ireland) prize on the subject of Insanity. Such a prize is indeed a monument to the honour of the Lord Chancellor!

“ d’eau en vapeur, en douches, en bain, en effusion :
“ les bains tièdes et plus ou moins prolongés, quelques
“ fois pendant plusieurs heures.” — *Esquirol*, vol. i.
page 480.

Why such medicines became entirely rejected in England, may be explained by the number of asylums kept by persons without any knowledge of the medical art, and the universally inculcated opinion, that moral means, and moral means alone, are all-sufficient, and the use of medicine restricted to the ordinary maladies or derangements of the human body, independent of the disorder, or disease, as the case may be, of the brain.

Partly, also, because when lunatics are collected together on a large scale, namely pauper lunatics, many of whom are farmed at from six to nine shillings a week, according to the poverty of the parishes, it would deprive the owners of these establishments of all possible profit, if medicine were to be *systematically employed, in order to cure after many weeks and months of treatment.*

How could this be done on from six to nine shillings a week, including meat and clothing? Partly also from the theory, which traces all excitement to inflammation, in the cases of mania, and to the no less erroneous, but still more frequent error, that melancholia depended solely on disease of the structure, or at least of disorder of the functions of the liver, as a primary cause !*

* Hence the use of any medicine which produced a white evacuation, though this effect was only temporary, was immediately condemned. *It locked up the liver!* It is well known that this effect of opium in nervous disease ceases after a short time.

Having mentioned the reason of taking up this subject, I will now relate some cases of the treatment successful in the earlier stages, and afterwards of the more prolonged and severe forms, and finally some few in which the mental disorder was mania of the more violent sort, which is very much more rarely relieved by this treatment than the cases of melancholia tending to suicidal madness.

The preparation which I have preferred, and, with two or three exceptions, I have always used, is the acetate of morphia; the mode of preparation the solution: forty drops of the solution which I have generally employed contain one grain of the alkaloid salt.

It has generally been, in mild cases, my practice to begin by a quarter of a grain every night, in solution;* then, after a week, to increase this to half a grain: it has rarely in such cases been necessary to increase the dose beyond half a grain. In severe cases I begin with half a grain (twenty drops), and increase it speedily to a grain (forty drops); rarely, most rarely, beyond this dose. The medicine is given at bed-time, and only at bed-time, the period which is intended for sleep; but, it must be repeated, without the *intermission* of a single night, for several weeks in mild cases, for at the least three months in the most severe ones.

In some of these cases at first sleep is not produced; in very few *rest* is not produced. Slight nausea, and

* In substance the effect is far less well marked. In some stomachs pills are scarcely dissolved at all. In all, except as regards purgative medicine, pills often pass unchanged.

This remark is especially referable to calomel pills "made for the winter," or made with gum, which after keeping harden.

disturbance of the head, are felt the first few mornings, but in these cases almost always at first, and *always after* a short time, both sleep is procured and the waking hours are free from pain.

The effect of the medicine is in precise analogy with what follows.* Suppose a man toiling with professional anxieties, and with domestic cares, returns home, after a larger proportion than usual of the annoyances of his profession or calling, fatigued beyond his powers, wearied in mind. He returns to rest unhappy, discontented, inveighing against his lot, and what he considers to be his peculiar cares. He sleeps sound, and when about to rise in the morning, the sun streaming in at the windows, after a sound sleep, how does he look upon the evils of the preceding day? do they not lose a large portion of their affliction? does he not look in a totally different point of view at the very causes of distress which afflicted him the night before?†

And this is precisely what the effect of morphia, properly employed, effects in cases of melancholy mental derangement, but not once or twice, as would be the case in trifling distress. Hence it must be

* This is beautifully referred to by the great poet of truth and nature, Sir Walter Scott. In *Quentin Durward*, he draws the distinction between the feelings of fatigued and refreshed nature with all his wonderful power. Thus, after weariness and despair, he adds—

“ Yet unwelcomely early as the tones came, they awakened him a different being
“ in strength and spirits from what he had fallen asleep. Confidence in himself
“ and his fortunes returned with his reviving spirits, and with the rising sun. He
“ thought of his love no longer as a desperate and fantastic dream, but as a high
“ and invigorating principle to be cherished in his bosom, although he might never
“ propose to himself, under the difficulties with which he was beset, to bring it to
“ any prosperous issue.”—*Quentin Durward*, vol. ii. page 145.

† “ Trim,” said my uncle Toby, “ I wish I was asleep ! ”

repeated regularly every night until the nervous system is soothed !

Thus it requires weeks for the medicine to be repeated regularly, even without a single night's intermission, and the cure, as I shall shew by examples, is the result.

And now comes precisely the point to which I wish to draw attention. If a man suffer from continued fever, or from diseases in which large evacuations have been necessary early in the disease, afterwards, when convalescent, what is the recommendation of the physician? Moderate and nutritious diet, quina, and one, two, or three glasses of wine in the twenty-four hours. Such a course repeated for several weeks entirely restores the patient's health, his muscular powers, &c. ; but what should we say, if he increased the wine every day by a glass, in order to enjoy the pleasurable sensations? We should say he would become a drunkard, and deplore such an event. Yet this is precisely the argument used against the employment of opiates in this disease. Is it not reasonable (I am sure it is true), that in broken states of the nervous system, the regular use of these medicines in given doses, should succeed in restoring the nervous power, as wine and stimulants, and diet, did, in the former case, the muscular system?

The wisest and the best of our own countrymen, aye and the most religious, have never thought taking opium for disease deserving of reproach, even when it was necessary to take a given portion, (without increasing it,) *regularly*. Mr. Wilberforce, whose character is above suspicion, took regularly for many years

a small portion of opium for his health, and the good, the kind, the charming Crabbe, was likewise obliged to take it for his health. Both these persons lived to be nearly eighty years of age.

“ My father,” (says Mr. Crabbe’s son,) “ now in his
“ forty-sixth year, was much more stout and healthy
“ than when I first remember him. Soon after that
“ early period he became subject to vertigo, which he
“ thought *indicative of a tendency to apoplexy*, and was
“ occasionally *bled rather profusely*, which only in-
“ creased the symptoms. When he preached his first
“ sermon at Muston in the year 1789, my mother fore-
“ boded, as she afterwards told us, that he would preach
“ very few more ; but it was on one of his early journeys
“ into Suffolk, in passing through Ipswich, that he had
“ the most alarming attack. Having left my mother
“ at the Sun, he walked into the town alone, and sud-
“ denly staggered in the streets, and fell. He was
“ lifted up by the passengers, and overheard some one
“ say significantly, ‘ Let the gentleman alone, he will
“ be better by and by ;’ for his fall was attributed to
“ the bottle. He was assisted to his room, and the
“ late Dr. Clubbe was sent for, who after a little
“ examination, saw through the case with great judg-
“ ment. ‘ There is nothing the matter with your
“ head,’ he observed, ‘ nor any apoplectic tendency ;
“ let the digestive organs bear the whole blame ! you
“ must take *opiates*.’ From that time his health
“ began to amend rapidly, and his constitution was
“ renovated : a rare effect of opium, for that drug

“ almost always inflicts some partial injury, even
“ when it is necessary,* but to him it was only salutary,
“ and to a constant but slightly increasing dose of
“ it may be attributed his long and generally healthy
“ life.”

If it were constantly to be increased, then, indeed a vicious habit would be induced, but it is to be used in small quantities, regularly repeated, and never increased *beyond a certain point, whether taken for six weeks or six years!* I may say, with the greatest truth, I have never seen one single case, either where the treatment has succeeded, or where it has failed, that the smallest injury has been done, nor in a single case where the medicine has been continued beyond the time when health was re-established. The application of medicine to disease being entirely beyond the ordinary reasoning of mankind, I should not have dilated on the subject had I not met in my practice, even at the moment when, after all other means had been used, the patient was recovering, such exclamations as these: But will it not paralyse the brain? As if the means which restored sense and reason, were about to do the very opposite, but of course more from the imagination being seized with the idea of opium eating: as if a remedy used for a most severe disease, and successful in curing it, could not be

* This is the opinion of Mr. Crabbe, notwithstanding his father's recovery, not of Dr. Clubbe; and this, in spite of recovery, is the ordinary state of alarm in the minds of people ignorant of medicine—the same as to colchicum, and to many of our most important means of cure.

I have known at least twenty cases similar to the one related by Mr. Crabbe.

distinguished from the intemperance* which seeks new sensations in inebriety.

These observations premised, I begin by giving cases, which will best shew the mode of treatment and the success. I do not take them in the order in which they occurred, being anxious to shew, first, the effect in recent and afterwards in longer cases.

CASE I.—A lady, aged about 43, was attacked in the month of August, 1833, (after exposure to severe distress by the death of a relation, who expired in her presence) with mental derangement.†

Her usual habits of thinking were those of great deliberation; she had lived much in society, and from her station mixed much in the world; nor had there at any time been any even the slightest indication of eccentricity or weakness of mind. Her mind was at the time I saw her filled with gloomy ideas: imaginary neglect of great and solemn duties, and a belief of having committed indescribable and even ill-defined crimes, constituted the principal features of her malady.

Her bodily health was unusually robust, and she had scarcely ever suffered even from trifling bodily ailment.

In the first instance the patient was bled, and took repeated doses of purgative medicines, but without any beneficial effect. The pulse was not weak; the nights were sleepless, and there was no pain in the head, but

* When persons have been cured of very severe cases of autumnal ague by the use of a solution of arsenic, people do not apprehend that it will lead to serious results, though arsenic has an undoubtedly poisonous effect on the system.

† This case has already appeared in the Transactions of the Royal Medical and Chirurgical Society.

a sense of weight was described, and there was restlessness of the body always present, so that the patient would often endeavour to jump out of bed and run out of the room. During an unavoidable absence from London the patient was seen by my friend Dr. Southey, and she was kept under nauseating doses of tartar emetic without any satisfactory result. It was now resolved to try the morphia, and a grain of the acetate was ordered to be taken every night, the bowels to be kept open by small doses of castor oil.

The severity of the symptoms became greatly diminished, and it occurred to me that the sedative effect of cold would greatly assist the operation of the medicine. Ice was therefore kept to the head in a bladder day and night. The morphia never failed to procure a good night; and thus by degrees, without any other remedy except those mentioned, the mind cleared up.

The use of ice was gradually abandoned, but the morphia continued to be administered every night during three months, although all trace of insanity had disappeared six weeks from the commencement of the remedies, during ten days of which the ice was kept continually to the head. No relapse whatever has occurred in the patient.

CASE II.—A young lady had visited for her health and her husband's the baths of Kissengen, without relief: on their return the complaints of the husband became worse, and he died.

The wife, wearied with nursing, tired from her

journey, shewed, previously to her husband's death, signs of mental derangement. She was removed to another hotel by her mother, and attended by a late physician and general practitioner of eminence. She was very melancholy, occasionally interrupting her delusions with hymns, or scraps of sacred poetry; occasionally, as is often the case, loquacious, and then again subsiding into absolute silence and idiotcy as regarded those around her. At the expiration of ten days her medical attendants reported to their patient's mother, that it was a rule in such cases, that when the patient did not immediately recover, she ought to be removed to an asylum or a private lodging, attended only by nurses, and without the visits of the family. The lady to whom this was addressed was very indignant at this opinion being pressed, and dismissed those who offered it. In the evening of the same day I was sent for, without any information of what had passed. I saw the patient, and recommended twenty drops (half a grain) of morphia at bed-time, first opening the bowels. This was repeated every night for a fortnight; in eight days the patient was well enough to be informed of the death of her husband; at the end of a fortnight she accompanied her mother to her seat in the country. Three years have nearly elapsed, and no return or disposition to return has manifested itself.

A few days after being called to the case, I was assisted by a medical man of great respectability, who came to London on purpose, when he heard strong measures had been recommended for one whom he had attended since her infancy.

CASE III.—A young gentleman, æt. 28, was attacked, after suffering from abscess in the perineum, with symptoms of mental derangement. He was attended by an eminent physician and surgeon, and the antiphlogistic treatment, bleeding, blistering, and purging, carefully administered. After three months had elapsed he was no better, and it was proposed he should be sent to an asylum in the neighbourhood of London. I was requested to see him; I found there was reason still remaining, though greatly obscured, at least it had not entirely disappeared, and I objected to his removal to an asylum until the use of sedatives and tonics had been employed. It was settled that a private house should be taken for him in the Regent's Park, where a relation or a friend was to reside with him; and this I think an indispensable requisite to the cure in all cases. He need not see the patient when it is thought to be improper; but he should always be there.

Either, therefore, a near relation or a most kind friend lived in the house. Two attendants were required, by day and night, from the very dangerous character of the disease. The other medical attendants having gone out of town, it being the month of September, the case was left entirely in my care.

The patient was given half a grain of the acetate of morphia in solution every night, and an acidulated mixture of bark twice in the day. The bowels were kept open every alternate day, either with castor oil, or senna draught, at least when required; but the bowels soon ceased to require any purgative. Slowly the veil seemed to be raised which obscured the faculties:

when he did not sleep he rested, and progressively improved until Christmas, when he appeared to have recovered.

Having visited too soon a crowded and busy place, his disorder returned in a slight degree, but by the end of February even this very slight irritation entirely ceased. Ten years have elapsed since this event, and this gentleman has never had any even the slightest return of his disorder.

CASE IV.—A lady, between sixty and seventy years of age, had passed the spring at Brighton, where she had been drinking for dyspepsia the imitative Carlsbad water; during this time she appeared more than usually excited, restless, even merry, expressing herself to be better than she had ever felt in her life. On her return to London this flow of spirits increased to serious delusion; then came constant and ceaseless talking, being quite incoherent. Among other things she thought she was brought to bed, and the mind constantly rambled on this point. The family became extremely alarmed. The continuance of the attack involved most serious considerations of property, in addition to all the horror of the complaint. I watched the case very anxiously, administered a quarter of a grain (ten drops) for the first three nights, and gave her a draught with two minims of Scheele's hydrocyanic acid twice in the day. The morphia was gradually increased to a grain (forty drops), and then for the first time in about three weeks an amendment presented itself. At the end of four months the patient *quite*

recovered. Nine years have elapsed, but notwithstanding much family anxiety, no symptoms of relapse have ever appeared. The patient still takes a quarter of a grain of morphia nightly, which she has never discontinued. This case was not purely one of melancholy, and it is rare that cases of similar excitement yield so readily.

In the progress of cases peculiarly fitted for the practice—melancholy, I may here observe that after little real or apparent benefit is obtained in less than a month, a day or two of ease occurs, then the family are in ecstasies; but a few days elapse and the patient is as bad as ever—proportional despair ensues; yet in neither the one nor the other case is there real cause for either excess of emotion. The case progressively improves, and at the end of a period varying from six to ten weeks the patient is restored to society.

I proceed to speak of a form of melancholia which more nearly resembles what is understood by hypochondriasis. In the former, the mind is disturbed by self-accusation without cause, passing on to delusions taking the form of crime or of remorse; the facts on which these are founded do not exist either in part or at all. In hypochondriasis the same deep conviction of the existence of bodily disease occurs: in women, of the uterus generally; in men, of the lower bowels or bladder. But even in hypochondriasis the delusion is very often sufficient to constitute melancholia. I have seen, for instance, a patient who thought and firmly believed she could not swallow; a probang was easily

passed; the delusion remained unchanged. She was satisfied that she suffered from disease of the womb. The most celebrated accoucheurs in London separately made the usual inquiry: the parts were perfectly healthy. She was sure she had lost the use of the lower extremities, and crawled about the room; but when from sudden fright, and once from the breaking down of a carriage, she walked easily and readily, still all day and part of the night was passed in complaining of her evils. No conversation, however interesting, could divert, no sudden alarm change the subject on which the mind dwelt—neither devotion nor amusement.

I mention this case to illustrate what I mean by hypochondriasis verging on melancholia. About seven years ago, a gentleman, about 25, applied to me for a supposed disease of his bowels; his mind, though a man of ability, was entirely occupied with the idea that he was losing his inside, while no real symptom existed of more than occasional derangement. He could talk, think, hear of nothing else: in the meantime constant solicitude preyed on his health; he lost his strength, his spirits, his flesh. He became reduced to the condition which we unhappily see in the last stage of consumption; emaciation so great that all the fat in the neighbourhood of the facial muscles was absorbed, and the zygomatic processes stood out in painful prominence. A grain of the acetate of morphia was given him at bed-time nightly; but many weeks elapsed ere he began to feel intervals of ease. His diet, which had not nourished him, began now (in four

weeks) to give him comfort : but those only who have had to prescribe for these cases can imagine the decision and encouragement, on the part of the physician, necessary to bear up against the constant importunity of the patient : always daily, sometimes twice or thrice in the day, will the patient call to say he is no better, perhaps worse. Still, in this anxious and trying case, perseverance in the remedy restored the patient completely. Health and flesh were regained, and no vestige of the complaint has existed from that time to the present.

A case occurred some years ago, which proves very satisfactorily the advantages of the treatment laid down.

Ever since my appointment as physician to St. George's Hospital, in the year 1828, I was in the habit of giving clinical lectures. In one of these lectures, about six years ago, I had occasion to mention this treatment, its success, and the mode of administering it. This lecture, or part of it, was published in the *Lancet*. About a week afterwards a gentleman in the west of England wrote to me, saying that the description of the symptoms, &c. exactly applied to his wife's case ; that she would not see any medical man, declaring it was *useless* ; but he hoped he might be able to give her the medicine on which I had laid so much stress. I gave all the information in my power. About three weeks afterwards I received another note to say that the patient had greatly improved ; and at the expiration of six weeks I received from the patient herself a letter of thanks, assuring me of her restoration to health, and begging to know how long the me-

dicine ought to be continued in order to prevent a relapse. Three years afterwards I had the pleasure to hear incidentally that she had continued to enjoy uninterrupted good health.

In the cases hitherto related, no remedy was in the great majority employed except the morphia, and taking the precaution of keeping the bowels open every alternate day. This is necessary, as on the first administration the morphia constipates, but after some few days this disagreeable consequence disappears, and there are no longer white evacuations or difficulty in the functions of the bowels. In two or three of these cases, in the first place ice was applied to the head, but this remedy is better adapted to the determination of blood to the organ of the brain, in mania, where blood-letting cannot without danger be had recourse to. It undoubtedly assists where melancholy intermits with paroxysms of violence.

There is another remedy which may be employed, though I have less often used it from the inconvenience of its adoption *regularly* day by day in this large town—the tepid bath. It is, however, very useful in melancholy, especially in that arising in the puerperal state, and in women generally. The only remedy which could, some thirty years ago, be recommended as being of certain advantage at the Quakers' Retreat at York, was the warm bath in melancholia; and the same was stated to me at Charenton in the year 1819.*

On the first attack of this malady purgatives may be

* Galen, De Locis Affect. c. 7. "Se melancholiam incipientem solo aquæ dulcis balneo frequenter curasse."

used actively to remove any obstruction in the bowels, and promote a free flow of the secretions ; but in fixed cases, in my experience, purgatives (so called) do harm, they disturb the system and lower the health of the patient : hence they may be confined to regulate the state of the bowels, so that they may be relieved at the least every alternate day.

The most amenable to similar treatment is the insanity which arises immediately after parturition. This is acknowledged to be the form the most influenced by medicine, and opium and the tepid bath have been the most frequent and the most useful remedies employed. I do not dwell on a point of practice which I hope and believe is well understood, further than to shew by two examples at a distance of time its utility.

About nine years ago I was sent for to Islington to see a lady, who had been confined the day before. This lady had had, a short time before her expected time, a fright from an alarm of fire, and her labour, although some days after the fright, was believed to be on the whole premature : the child was living. The patient's state was dreadful ; her screams and cries were under the apprehension that she was condemned, and in hell fire. The lochia had ceased to flow ; the patient, young and always delicate, seemed to have almost superhuman force ; but her expression and violence of fear were scarcely to be endured. The pulse was 130, or even quicker. I recommended a grain of the acetate of morphia in solution, and a warm bath, every evening ; her bowels to be kept open. I did not visit her again for two or three days, and I well remember the

astonishment with which the anxious friends assured me she was so much better.

The practice was continued, and I only saw her once afterwards; the further attendance of a physician being quite unnecessary.

Three years after this I was requested to see a young lady about a week after her first confinement: she had begun to talk flightily and incoherently, and this went on to insanity.

Such a condition was speedily followed by obstinate constipation, and constant vomiting; purgatives and the warm bath relieved the first, but the tendency to sickness continued, and became most alarming. At this time a grain of opium every three hours was advised, and the perseverance in the use of this medicine and the warm bath speedily restored the patient. This lady has since borne four children without any recurrence of her sickness.

But there is a class of cases which still more immediately profit from this practice—melancholy madness, connected with the uterine system. In these cases aberration of mind first is observed to take place in the early months of pregnancy, and generally after some fright or mental emotion. In the cases to which I allude, and I believe generally, the attendant practitioner, either from not having seen such cases, or with a laudable view of giving hope, speaks confidently that all will cease with the labour. In no case which I have seen has this proved true; the birth of the child has been the signal for an increase of the disorder, and

unless cured—and it may be cured by the means I mention—no alleviation has occurred until after another child has been borne.

The character of the insanity is self-accusation, alarm or horror for the husband or children ; scenes of future punishment often present themselves, and a peculiar dread of taking food for fear of adding to the evil by increasing the health, and thus perpetuating the wickedness of which the patient considers herself to be guilty, is constantly present. I will relate two marked cases of this kind, which will exemplify the malady and the success of the treatment at the same time.

I was requested in the month of September, 1838, to visit a lady professionally. The history of her case was as follows:—Her age was about thirty-two ; shew as the mother of several children ; when in her pregnancy, advanced about three months, she was visiting in the house of a near relation, where a death took place after a very short illness. Peculiarly susceptible amidst the distress of all around her, it made a profound impression, not perhaps at the moment ; its effects were not visible for about a month, when symptoms of mental aberration shewed themselves. The care of her friends wasted time as well as they could, in hopes the accouchement would act as the resolution of the malady. The labour was short, and as is usual in such cases the pains made little impression on the patient ; but instead of being better in mind she became worse ; alarm arose both for own life and that of her child ; and as bodily recovery

progressed from child-birth, the state of her mind seemed to become worse.

She was removed to her seat in the country. Seven months had elapsed since her confinement, when I was requested to see her. I found her with such change of features, that in after-life I should scarcely have recognized her; in despair about her faults, her incapability of saying or doing what was right; considering herself a dirty and defiled creature, and shewing the strongest disposition to suicide, towards which she had made many attempts. At times violence and destructiveness were mixed with the sad, deeply melancholy general expression. Her family, whom she dearly loved, were fiends in her imagination!

After seeing the patient, and making careful inquiries, I said and felt satisfied this was one of the cases in which opiates had the best effect, and entered fully with the gentleman whom I met (a late most eminent general practitioner) into the reasons for such practice. I recommended 30 drops (considering the duration of the disease) of the solution, (two-thirds of a grain) to be given every night at bed-time. I said, it will at first perhaps make her feel sick, or cause head-ache, but it will *cure her!* only remember, I do not expect any *marked good effect in less than a month.* Some days after, in consequence of a fresh attempt at self-destruction, I saw the gentleman again; I again earnestly impressed upon him the propriety of perseverance, from my experience. In about a fortnight, meeting him incidentally, he said, "Oh! we were obliged to give up

your medicine after a few days, it made her sick !” I made no answer, and considered my responsibility to be at an end.

I lost sight of the case for the best of all reasons : soon after this conversation I was attacked myself by an illness so severe as to leave no expectation on my own mind, or hopes in my family, of my recovery, and of course all professional business was at an end. The first day in January (the last visit to the case had been early in October), on which I for the first time left my bedroom, a gentleman called on me to express the urgent wishes of the lady’s family, that I should take the entire and sole charge of the patient. My health was so injured that I could then attend no one ; but urged by importunity, I said I would write to the husband of the lady, if my health enabled me to return to my profession. At the end of January, I returned, feeble indeed, but able to commence my duties, and in the last week of that month the patient was placed under my charge. I found her, I thought, better in bodily health than on the former occasion, but everything in her room was boarded up which could be easily destroyed, and the female attendant informed me, that on that morning the patient had destroyed all the crockery by wilfully overturning the table, and that during the preceding nine weeks she had never slept without some restraint, as her tendency to self-destruction was well marked. It was my first desire to remove her home : it appeared to me that she would be as well with attendants in her own large house in London, as in a

much smaller one in the neighbourhood of the Regent's Park ; but I was prevented by her house in London being dismantled, and a fortnight elapsed before this could be carried into effect. In the meantime I held out the return home as a reward for taking her medicine, which was the same in dose, and identical in composition, with that which I had ordered five months before. With the exception of occasional purgative medicine, no alteration was made during the continuance of the illness.

In about a month after her return home, she was so much better that her children were restored to her. This was at the end of February. She then visited different relations, and on the 24th of May in that year was well enough to go to the Queen's drawing-room, all idea of serious illness being at an end.

With a view of restoring her health, her kind friends, notwithstanding some difficulties from other engagements, resolved to try a tour on the continent. She remained well, but at times melancholy resumed its throne for a short time, and she returned to England not better than when she left home. Here I must be understood : she was in no state that approached the one in which I found her, but she was still low in spirits. This continued for about three months after her return, but at no time was there anything in her conduct and behaviour which could prevent her being a free agent. There were only shades of depression.

From this time, her medicine being continued in half-doses, she entirely recovered, and when she died in child-bed (the third pregnancy since her illness),

from an unusual accident in parturition, it was a consolation to all who knew her that she had retained for six years uninterruptedly her excellent sense and good spirits even to a few minutes before her death.

I mentioned above, that, with the kindest intention, the friends of the last patient removed her for a short continental tour, from which she derived no benefit; and this brings me to speak of the effect of travelling, and what is called variety, in the treatment of this form of disease.

In every case (and it will be illustrated in the next), that this course has been pursued, it has been invariably hurtful in my experience. Nothing is so common as to say—"Poor thing! give her or him a little variety; rouse them, change the scene." In simple hysterical cases this may do, but in cases of real aberration of intellect in melancholy, two circumstances render it wrong.

First, presenting to a mind impaired a succession of objects too quickly.

Secondly, that the mind pre-occupied considers all this as an abomination: "What do they drag me here for? I who am so wretched: ah! it is all very well: what a mockery in my state!"

Thus it is, and thus it has been forced on my mind, in a great number of examples, both of men and women, that change of place and variety is eminently injurious as a means of cure, until the melancholy hallucinations are completely at an end.

This is in great contrast with the good which does

arise from such a plan in the deep and real affliction which results from loss of friends, simply severe bodily illness, or any great moral distress. In these, if the unhappy individual can be persuaded to travel, new life comes from the exertion.

The contemplation or the thought of what great changes occur on the face of the earth,—how many thousands have equally great or worse sorrows,—the very distraction of occupation,—works wonders.

In the one example the mind constantly rebels against the change of scene; in the other, the mind borne down with affliction, still in right-minded people lends it assistance to recover.

To the really melancholic and hypochondriac it does most serious harm. I speak decidedly, for I have seen many cases retarded in their cure by the prevalent and popular opinion that variety and change of scene will benefit cases of mental aberration, either in the incipient or confirmed stage.

I was consulted about two years ago on the case of a young lady, the mother of more than one child, who after her last confinement (a year previously) had become melancholy, unhappy, taking care neither of her husband nor children, believing the latter did not belong to her, and mixing her expressions of sorrow or despair with language such as is only to be heard under perversion of intellect in young, beautiful, and well-educated females. In this case the patient had been from watering-place to watering-place to divert her fixed melancholy. I had seen so many similar cases, that I did not hesitate to recommend her

returning home and taking the opiate (the regular one) every night at bed-time, and I ventured to assure the family that in about six weeks the patient would recover. In little more than a month I received a letter from the lady's mother-in-law, to say she was perfectly recovered, had resumed her duties, her love for her children, and her favourite amusements. At the expiration of a year I saw this patient perfectly recovered, and have seen her again lately in a state which could give not the slightest reason for believing she had ever suffered as she did when I first visited her.

I proceed to consider the subject of occupations for such persons.

A great deal has been said, and very well said, on the subject of occupation in insanity, and especially in cases of melancholy. When amusement or occupation can be effected without compulsion it is of the greatest importance; when on compulsion a great many deaths will be the consequence. Still, among pauper lunatics, whose whole lives have been spent in labour, a large proportion are willing to employ themselves, and when they are willing I think every endeavour should be used to restore the reason both by remedies and by moral treatment, as I feel well assured that the very fact of being willing and able to work is a *prima facie* evidence that their mental disease is curable.

But among opulent lunatics, employment is much more difficult—with men especially; so that I have had

great reason to regret that the amusement, not the abuse, of games of chance has become of late years so much less had recourse to than formerly: cards,* in every form, are great adjuncts to employment, draughts, billiards, and chess (the latter, as requiring more perfect combinations, the last to be employed), all render the cure more easy: and many and many a time have I grieved when I heard the patient never played at cards, draughts, or backgammon, as I was prevented seeking assistance from that which would have first opened the way to more serious employment.

In female cases the difficulty is far less great; all women work at the needle, or do plain work, net, or embroidery. Of all these kinds of female work embroidery is the best. I remember in the case of a gentleman extremely ill, and dying of a chronic disease, I one day found his wife actively engaged in his room embroidering, as he slept. I said, "How industrious you are!" or some such remark. She replied, "Yes; I embroider as much as I can, for do you not know that I *cannot think* as long as I am counting stitches?" This explains why this kind of female employment has an advantage in cases of melancholy; and I feel certain I have seen cases greatly accelerated in their recovery by the patients promising to do a certain portion of this kind of work every day.

There is one circumstance to be adverted to in these cases, namely, the irregularity or total cessation of the

* It is well known that cards were invented for the employment of Charles the Sixth, king of France, during his periods of insanity.

monthly function after delivery. It is, in such cases, both extremely natural, and according to the rules of good practice, to solicit the return of the monthly period by attention to the general health, by steel, bit-
ters, aloetic purgatives, warm baths, &c. The wasted state of the patient's health, the anxious countenance, the feeble pulse, the daily increasing emaciation, would all seem to render this the most natural and necessary practice; but I cannot call to mind, out of many, a single case where this has succeeded as the result of tonic treatment.

Where the melancholy and distressing feelings have given way under the use of opiates, this necessary function has appeared to return as a result of restored health; but though the disease of perception has been removed it has occasionally happened that the regularity of the monthly recurrence has not been re-established; but on the contrary, in the sedative practice, when followed by success as far as the mind is concerned, it has been unaccompanied occasionally by the restoration of the function which all females consider, and justly consider, as essential to perfect health.

This difficulty has been obviated in a very remarkable degree by a practice which there is but one objection to, the difficulty of its application. Leeches should be applied immediately before the expected period, as nearly as can be, to the os uteri itself. The leeches are to be applied through a tube perforated with holes, and it is obvious that they can only be applied by a professional person, and equally obvious

that it is desirable, if not indispensable, that it should be done by a female. For this purpose I have availed myself of the assistance of those persons who attend as educated nurses in the metropolitan lying-in hospitals. It appears to me to be very desirable to impress upon the profession the great advantage of this practice; it is equally useful in the hysterical mania of young women, which is met with not unfrequently, and here the application of the remedy is still more difficult, and the careful manner of its application still more necessary. I have seen the most serious and alarming illness disappear under the regular adoption of this remedy,* and I have every reason to believe that I have seen consequences of the most distressing nature, namely, the establishment of mental derangement, averted by it.

I had occasion to see a case in illustration of the former part of these remarks not long since. A young lady, aged 21, had suffered from hysterical mania two or three years previously, from which she had recovered; a second attack had lasted eight months; she had had the best advice. She had taken sedatives at night, and every thing that care and kindness could afford had been administered. Air and exercise, amusement as far as she could enjoy it, and strengthening medicines, had all been employed in vain. Medicines which generally cure amenorrhœa in a languid habit had had no effect.

* The remedy should be used about three days before the expected return, or when the function ought to have recurred.

On the patient being placed under my care, I continued, and rather increased, the dose of sedative medicine taken every night. I ordered quina, with galbanum and conium, in the day, and I recommended the application of three leeches in the tube to the os uteri as each recurring period of the catamenia would be expected. In six weeks the patient entirely recovered, having had two applications of the remedy. I have mentioned here languid amenorrhœa, because it is in such cases that this remedy is most useful, florid amenorrhœa being rarely or never accompanied by mental derangement, and being of course treated by those remedies which reduce health to its natural state.

It is well known that many persons suffer immediately after confinement from maniacal derangement in a greater or less degree: fortunately these are cases which, unless there be an hereditary predisposition, sooner or later recover. The present observations have reference to what may be termed the acute form of the disease, and the very essential relief afforded by the sedative practice.

Not to overload these pages with numerous cases, I state in each instance one which is a type of several others, from my notes. A lady, about twenty-two years old, was confined with her first child, somewhat previously to which event she had had some alarm from a cry of fire in the house: the labour was natural, but succeeded by this maniacal affliction of the patient: she considered herself to be in hell-torments, and it required

the force of several persons to keep her in bed. The lochia were suppressed, the tongue brown and loaded, and evacuating medicines, which had been given, were attended with not the smallest advantage. I recommended acetate of morphia, one grain every night, the use of the warm bath, a small quantity of wine, with a caution to the family not to expect for several days any amelioration to the symptoms. At the expiration of forty-eight hours there was a visible improvement; at ninety-six hours lucid intervals and refreshing sleep began; two days more elapsed, and all immediate distress was removed.

This lady has had several children since the period in question, without any return of the complaint. In this instance the images of distress were all melancholy, although her disease was accompanied by great violence. Nor is it easy to describe the excessive exhaustion and apparently hopeless condition of the patient. Had the images been joyous, with equal violence and a less exhausted state, I think even now that I should have despaired.

I come now to a series of cases which have no reference to that peculiar system the interruption of whose functions is productive of so many secondary and serious evils.

About the age of sixty, great changes take place in both sexes, which would appear to have reference to the circulation in the brain. As life advances the mechanical portion of the fabric would be most likely to

decay ; and this we find to be the case. The arterial system loses its elasticity by the alteration of its coats ; sometimes the destruction of its internal coat by softening, sometimes by the deposition of bone in the otherwise elastic tissue. The deposition of bone, often very considerable in the larger arteries, especially the aorta and radial, nearly obliterates the structure of the minuter arteries. This, in the smaller ramifications, gives rise to softening in the parenchyma of the brain, while in the larger arteries of the brain it occasions rupture of the vessels, whenever sudden and very considerably increased action of the heart is produced ; but where disease does not go to this extent, it is clear great irregularity takes place as to the uniform pressure of blood in the vessel : hence, perhaps, the natural relief by the pouring out of fluid ; or the brain itself, no longer equably and regularly nourished, becomes impaired in its perception in a similar way to that in which organic actions in other parts of the body are impaired by a deficiency of proper nutriment : whether this be or not the proper explanation, the facts are as follows.

The patient becomes morose and exceedingly distressed about trifles, and sometimes there is a melancholy foreboding of mischief. As time advances, the patient becomes oppressed with the feeling that it would be better and easier to escape from life itself, than to undergo the horrors that he experiences. Now, it is conspiracy of his dearest and best friends to deceive or destroy him ; often, he consider she labours under some great moral imputation, and takes up the remem-

branches of youth for the purpose of establishing some terrible stain on the character which he is now, for the first time, fully aware of. Sometimes it is his affairs which are inextricably involved. It has occurred to me to see several of these cases of melancholy in advanced life, where the principal alarm was against personal arrest: although at the same time there was a large balance at the bankers', and an income equivalent to five times the expenditure, yet at any knock at the door the patient would expect a bailiff; or he passed hours in the deepest lamentations over bills and bonds of which he had been cheated, and which all the time reposed safely in his strong box. When these supposed missing securities were shewn him he would declare they were not the real ones, but forged for the purpose of deception. Intervals of ease, however, take place under these circumstances; they are frequent at the commencement, but gradually become less. Such cases very frequently terminate in suicide.

The utmost quiet and tranquillity are necessary. The patient ought never to be left either by night or day, for suicidal propensities in these particular instances are extraordinarily ingenious. An instance occurred in a private asylum not many years ago, where a patient strangled herself when a nurse was sitting within four yards of her bed. The moral management, as it is termed, consists in a variety of amusements, which call for the least exercise of mental power; gentle riding on horseback; and, in-doors, cards, billiards, backgammon, or any of those numerous engagements which occupy without employing the mind.

The medical treatment which I have seen successful is entirely in conformity with the explanation which I have endeavoured to give. The patient, unless he be very plethoric, in which case he may require venesection, should be cupped at the back of the neck, to the amount of about six ounces the first time. This will relieve, not the plethoric condition of the vessels, but the unequal distribution of the blood; and every six weeks, as nearly as possible at the same period, the patient should lose about four ounces more. Some saline purgative medicine should be administered every morning, sufficient to procure two watery evacuations, and a quarter of a grain of morphia every night, increased after a time to half a grain, to relieve in this instance the effect, and not the cause, of a disordered organization. Neither warm or cold baths appear to be of any use in this particular form of the disease.

If, which is not unfrequently the case, the stomach be disordered, the tongue red and shining, symptoms of an irritated state of the mucous membrane of the intestinal canal, especially of the stomach, the patient may take twice a day such a dose of the medicinal prussic acid as may be considered by his adviser to be necessary, and from which often the greatest benefit is derived: and here particular attention is required to those periodical discharges which establish themselves as life advances. If the patient has been subject to hemorrhoids, which have ceased to discharge, leeches may be applied to the anus, instead of cupping to the back of the neck; if the urine be small in quantity, as is not unfrequently the case, the use of the preparations of

nitre, with nitric æther and tincture of squill, may be taken twice in the day, in the place of the prussic acid recommended under a different condition of the system.

In every case the diet must be moderate, and if animal food is taken it should be every alternate day, fish and farinaceous food being given on the intermediate days. On the subject of wine it is impossible for me to lay down any rule, because the same recommendation cannot apply to a man who through life has been very temperate, as to one who probably has habitually drank a bottle daily during the preceding forty years of his life. The smallest possible quantity must be allowed that can be reconciled with the previous habits of the patient. It has occurred to me to see more than one of these cases where the disease has been attributed to that parent of all evil, the liver, and the patient has been sent to drink the stimulating saline waters of Carlsbad, or even those much less stimulant of Wiesbaden; and even in more than one instance the factitious waters of Brighton. The use of these, thus *improperly* employed, has been followed by the most furious insanity; at other times paralytic seizures have ensued with fatal effect, and the worst part of these cases is, they have been invariably preceded by amelioration in the melancholy disposition of the patient, and frequently by a flow of spirits and eagerness of manner which, when contrasted with the former symptoms, have raised the most sanguine hopes of relations, which were speedily to be consigned to despair. The sedative treatment alone is perfectly useless; it is in a secondary view that

it is useful, in diminishing the intensity of an effect, while the cause is relieved by the regulated and periodical treatment already related.

But by far the most serious obstacle to the cure of this disease, and which was made apparent during the attendance on cases of it, arises from the singular connexion between diseases of the mind and diseases of the lungs, especially pulmonary consumption.

I have stated that, during the last fifteen years, upwards of seventy cases of melancholy mental derangement have recovered; rather more than twenty have not recovered. In investigating the causes for non-recovery, the first, and by far the most important, arises from the singular connection between melancholy and disease of the lungs.

Thus Esquirol—

“ De ce relevé il résulte que les mélancoliques
“ succombent presque toujours à des maladies chro-
“ niques, particulièrement aux affections de poitrine.”

And again he states, that out of 176 patients who died affected by melancholy, sixty-two died of pulmonary disease.

The most eminent English physicians (Meade and Heberden) have called the attention of physicians to the extraordinary and beneficial interposition which is afforded by the appearance of phthisis pulmonalis, and the not very unfrequent recovery of the patient from his mental malady. And this most remarkable effect must have been seen by most physicians who have had extensive practice. But observations on the converse of the propositions is much more rare; at

least I did not know it until forced on me by experience, nor is it mentioned in any of the standard works on physic in England with which I am acquainted ; and yet it is very remarkable.

A large proportion of the twenty cases mentioned died under this disease : I will subjoin three from many, as illustrative of what I advance.

About seven years ago I was requested to see a lady labouring under so great a degree of what would be called hypochondriasis, as to amount to melancholy. She could not eat, imagining there was an obstruction. She passed sleepless nights for months, in lamenting her distress. She had successively disease of the uterus, as she supposed, palsy, and various mortal diseases. This was not the serious part of the complaint. She could *talk of nothing else*. Though a pious woman her mind was abstracted from religion : with much cultivation of mind all objects of amusement or society were given up ; always returning to the same subject, never leaving it even for a moment.

This distressing state of mind I was informed had succeeded to an attack of catarrhal fever, more generally called in these days influenza. There were no symptoms of fever present, neither heat of skin, nor acceleration of pulse, nor any change in the ordinary animal functions. The tongue was clean ; the age had passed since the female health was a consideration, and the other functions were natural ; still the whole conversation was a complaint, neither by day nor night ceasing. After much careful attention, I mentioned to the family, and to a friend of the family, who will re-

member the conversation, that if there was not disease *slowly progressing in the lungs*, I had every reason to hope I could effect a cure ; but I feared there was disease slowly progressing in the lungs. Weeks, and even months, elapsed without benefit more than slight relief. I then begged the husband of the lady to have other advice. He sent for a late physician of eminence, who paid great attention to auscultation and percussion. After careful inquiry, he said there was no disease of the lungs, and he did not think the patient would recover unless placed in an asylum. This advice was not complied with. Several months again elapsed, when another eminent physician was applied to, who made a long examination by percussion and auscultation, and was satisfied no disease existed in the lungs. Again, at the expiration of from six to eight months, she was visited, and a similar opinion elicited. Three years had now elapsed, and the patient was no better. After this, in conversation with Mr. Bacot, the patient's ordinary attendant, I gave my opinion that, from experience in such cases, sooner or later disease of the lungs would appear to be established. A few months after this conversation Mr. Bacot called on me to beg I would visit this lady. Her cough was incessant ; her expectoration very great. The colliquative sweats greater than I had ever seen before, wetting even to the mattress. Hectic fever of the severest character was present. Only six days after I visited her she sunk from one of the most rapid cases of pulmonary consumption which I have ever witnessed.

CASE II.—A young lady had been observed to be much disturbed in her reason ; at length seemed to think she was at the moment of marriage with a gentleman who had never made any advances to her. The morbid idea continued in her mind, and she acted as if her imagined wishes were true. This greatly embarrassed her family, and the embarrassment was increased by various other hallucinations being mixed with the prevailing folly. This was permitted to go on with watching during more than a year : after this time her mind became so impaired from various morbid ideas, that my advice was requested.

When first I saw her, finding that two of her sisters had died of consumption, I mentioned my great fear that a similar termination would ensue.

Under the first treatment which I have described, her general health greatly improved, but her mind still continued to receive the greatest errors. Sometimes all the women around were men in disguise ; sometimes her ordinary attendant, the person to whose affections she was devoted, disguised as a woman : at another moment were supernatural conversations. Then came the most dreadful of these most afflicting cases—self-starvation. Life was for some weeks preserved by forcible feeding, when the desire to resist suddenly disappeared. After a short time great emaciation began to take place, and the unhappy idea established itself that she, the patient, must be a martyr ere she could attain the happiness intended for her in her matrimonial scheme.

Time passed on, and the lungs became affected. I cannot say in this case that the appearance of disease in the lungs (an effect I have several times witnessed) suspended the mental disease; but it modified it; all violence disappeared; and the patient took pleasure in the sight of her friends.

She died, worn out by pulmonary consumption, about six months after the symptoms of disease of the lungs first occurred. It is useless, and might be painful to others, to multiply cases.

Twelve cases out of twenty of those coming under my observation died in the same way. One was very remarkable.

A young lady, of great personal attractions, sustained a sudden shock at the age of seventeen. Strange alterations in her behaviour were observed, which ended in *violent mental derangement*. After a residence of about two months in London she was apparently well. I feared her restoration to home was too early; but her strong desire, her apparent recovery, the natural affection which prompted her wish to return, all induced me to consent. The patient went home.

About six months afterwards I again saw her; not violent, nor in any way deranged, except shewing a fixed and determined hatred to those who loved her best—her parents.

In the seclusion in which she was placed every kindness was shewn her, and she appeared to enjoy perfect health except when expressing a positive determination not to return home, on account of the fixed aversion before stated.

After rather more than a year had elapsed, yielding rather to persuasion than her own wish, she rejoined her family, and went into society. But a few months after, this young lady, who enjoyed the highest personal advantages, was highly accomplished and well informed, died of phthisis pulmonalis, after an attack of pain in the chest, which she studiously concealed, of only *six weeks duration*. I cannot sufficiently impress on the profession this most remarkable connection. As an example: in one family, consisting of four young people, two destroyed themselves, and two died of pulmonary consumption.

I have mentioned, in one of these cases, the saddest and most painful incident among so much suffering—self-starvation. This is not very uncommon, and in some instances has proved fatal, occasionally from the natural but ill-directed affection of friends, who would not permit any force to be used even to maintain life.

It has been my misfortune to see several of these cases, but no fatal ones. To those in whose experience fatal cases occur, every attention ought surely to be given to investigate the state of the stomach after death; to endeavour at least to add some link to the chain of investigation.

I have seen this frightful state exist six weeks, during which the patient's life was saved by broth enemata, and by passing a small portion of broth into the stomach once in the twenty-four hours by means of the stomach-pump.

Sometimes this disposition to starvation is periodical,

at others disappears suddenly. In all cases a very small quantity of food appears to be sufficient. The stomach appears to be unable to digest a load ; and a very small portion of arrowroot and milk, given twice daily, will often carry the patient over the dangerous time.

I am ignorant of the cause ; but being ignorant of the cause, if I might suggest an explanation, it would be, that this state arises from a contracted state of the stomach, secondarily to disease of the brain ; and as the indirect influence of the brain changes, the more healthy condition of the stomach is restored.

The disposition to voluntary starvation is a symptom generally observed in melancholy, although it also occurs in violent mania.

I have already suggested the study of this symptom to those who have great opportunities of experience, to trace the cause ; and when the patient dies, the careful examination of the stomach and the remaining secretion, in order to throw every possible light on this most striking disposition to suicide, should be sought for, notwithstanding the false delicacy of friends or other obstacles.

There is another symptom also in melancholy, still more deserving of scientific inquiry. In some happily rare cases, the patient being violent, spits a vast quantity of viscid saliva during the whole day, and often for weeks together. This must necessarily be a very weakening process ; but what renders it more neces-

sary for the consideration of the physician is, that the matter spit out (increase of saliva, not expectoration) is of a most disagreeable odour, and in some cases actually stinks. I have conversed with many persons who, during their lives, had attended lunatics, and they seemed almost to think I was of the family of their patients, when I suggested that this circumstance was a matter for scientific inquiry, and more especially when the very same extraordinary spitting, often with a harsh smell, distinguishes some cases of hydrophobia.

I suggested, and I still feel the suggestion to be just, that the remote analogies, when followed up, may throw light on the two most dreadful diseases of the human body.

Those who have the care of a great many lunatics, might, when such cases occur, have the excreted matter analysed by a skilful animal chemist, and no means should be omitted to ascertain, by inquiries after death, whether any particular lesion of the brain was observed where this severe symptom prevailed, more than in any other case of madness.

In the few and striking instances in which I have seen it, it accompanied the most violent form of mania; but, alas! I was prevented from making the post-mortem inquiries. This cannot hinder those who, being at the head of the greatest lunatic establishments, owe such inquiries to their country.

But I go on to speak of the little advantage hitherto which morbid anatomy has contributed to our im-

provement in the understanding of these diseases, and hence in the art of *curing*,—the first great object of every physician's inquiries.

If, for instance, a man of fifty dies deranged, after much mental distress from broken circumstances, forfeited hopes, or the loss of the last and best promise of his life; if, on his death, there is some vascularity in the brain, and the vessels have begun to put on that appearance of change in their coats which is observable as life advances, those who examine the body are satisfied if congestion of the brain, and atheromatous deposit in the vessels, are present. The next day, if a hospital physician, he examines a man who dies of enteritis, or of some sudden illness; the same congestion is observed, and the same state of vessels, and still no one dreams of attributing the death to other than the inflamed state of the intestines, with purulent matter or lymph, and whey-coloured fragments thrown out.

Sir Benjamin Brodie told me, that he had examined very accurately with Mr. Tatum, surgeon to St. George's Hospital, the brain of a gentleman who had been confined for many years, nor could he ascertain any apparent alteration from ordinary structure. Many, many cases of a similar nature have occurred, but, above all, the numerous and permanent cures which have arisen from allaying functional disturbance, prove that mental derangement does not necessarily depend on organic disease of the brain.

If a lunatic advanced in life dies of apoplexy, the

effusion of blood or fluid into one of the ventricles of the brain, or at least the condition of the arteries which produced it, is considered quite enough to explain the preceding malady.

In another case the blame is laid to the vesicles found in the choroid plexus; the observer forgetting that such cases occur in very large numbers without any degree of mental aberration ever having been observed.

At another time adhesion of the membranes dependent on age, or complete ossification and obliteration of the sutures, have been quite enough to satisfy the observer, even though he finds the same appearance next day in a patient who has died of carcinoma of the rectum, or stricture of the bowel. And this was still more the case when all disease was considered to be the result of inflammation, acute or chronic; any appearance of thickening, or increased vascularity, however old the former, or recent the latter, accounted in default of other appearances for the mental aberration of the patient. For example, several cases of post-mortem examination are related in the early part of the work of the late Sir W. Ellis. Now I feel satisfied that in no one of these cases are there any appearances which I have not seen in patients who have died of disease wholly unconnected with disordered mind.

The only person with whose writings I am acquainted, who has studied organic causes as bearing on insanity in a philosophical point of view, is M.

Foville, the physician of a large lunatic asylum in France.

I cannot coincide with him as to the frequency of the appearances, but I should be neglectful of my first duty, viz., the urging physicians to a similar inquiry conducted on similar principles, if I were not to give a sketch of his opinions.

Mons. Foville observes that—

“ Mons. Esquirol has remarked in the numerous
“ post-mortem examinations he has instituted in refer-
“ ence to the thickness or thinness of the cranium, or
“ its being compact or porous, or with the diploe well
“ marked, whether injected with blood, or exsanguine,
“ a great number of irregularities as to the presence
“ or frequency of such alterations; but neither thick-
“ ness nor congestion of the membranes, nor ossifica-
“ tion of the basilar arteries, neither hardening or
“ softening of the brain, nor serous cysts in the choroid
“ plexus, alone or together, were *constant in relation*
“ *with any form or forms of insanity.*”

Amid all the changes which he has observed, Mons. Esquirol concludes that each and all having been found in cases in which no mental alienation prevailed, none can be considered to be causes of, or in direct relation to, mental alienation.

“ I need not speak here of the alterations of the
“ brain which may occur to those who study the brain
“ after the death of the insane, the same as are found
“ in the brain of those who were never insane, such as
“ hæmorrhage and softening.

“ With reference to abnormal growths, such as
“ tubercles, encephaloid formations, the presence of
“ entozoic cysts, I have not seen these often in the
“ brain of lunatics.

“ It is, however, desirable to state, without entering
“ into detail, that a tumor pressing on the hemispheres
“ of the brain, or an effusion of blood into either
“ ventricle, may produce the symptoms of mania, and
“ thus cause individuals to be sent to a mad-house who
“ were in fact never mad. For the interest and happi-
“ ness of families most undoubtedly such mistakes
“ should be carefully avoided.” — Foville, *Dict. de Médecine Pratique*, p. 544.

The preceding observations from the pen of Mons. Foville, who to great observation and experience adds the greatest physiological knowledge, are, in my mind, of the utmost importance. It is not enough to find in the cranium of a lunatic of sixty years of age what would have been found in the cranium of an individual of the same age who never experienced any alteration of the intellectual faculties, to pronounce that the tumor, or softening, or tubercle in question, was the cause of the disease. But this is an error which many have fallen into, and which has been one main cause of obstruction to investigation in these difficult cases.

Mons. Foville thinks he has seen a very peculiar appearance in the brain of lunatics after death, which, if his observation is correct, would lead us one step at least further in the most interesting inquiry as to what alteration in the structure of the brain was

necessary to the production of mental disease, or even the most frequent cause of it. I give a sketch of his opinion for the consideration of others. In the few cases in which I have been able to make the inquiry after death these have not presented themselves ; but surely it only requires that these opinions should be known, to enable those who have great opportunities at the hospitals of Bethlehem or St. Luke, to set such questions, and most important ones they are, at rest.

Mons. Foville is evidently a firm believer in the opinion which attributes sensibility and volition to the cortical and cineritious structure of the brain ; while he considers the medullary or fibrous portion to be the medium through which the more intellectual portion transmits its orders.

Hence in lunatics we ought to find the cortical portion of the brain principally diseased (supposing mental disease to be referable to organic alterations), while the medullary part may be greatly injured without the mental or intellectual faculties suffering.

Thus in acute cases :—

“ Dans les cas les plus aigus, aussitôt qu’on a
“ enlevé les membranes qui recouvrent les circonvolu-
“ tions, la substance corticale présente une couleur
“ rouge très-intense, approchant de celle d’un érysi-
“ pèle ; cette couleur est encore plus prononcée dans
“ l’épaisseur de la substance corticale.

“ Quelquefois la superficie des circonvolutions dé-
“ pouillées de leurs membranes peut sembler peu
“ différent de l’état normal ; mais si l’on pratique de

“ légères excisions de la substance corticale, si l’on en
 “ sépare dans plusieurs points des couches assez minces
 “ pour ne pas mettre à découvert la substance blanche,
 “ on remarque alors une teinte rouge plus ou moins
 “ foncée, quelquefois uniforme et très-intense, mais
 “ plus ordinairement inégale, offrant l’aspect de mar-
 “ brures nombruses, dont la couleur propre varie du
 “ rouge de sang artériel au rouge lilas. De petits
 “ points plus foncés, des sortes de piqueture de sang se
 “ rencontrent très-souvent au milieu de ces marbrures,
 “ et donnent l’idée d’épanchemens sanguins d’un très
 “ faible volume ; le plus ordinairement la consistance
 “ de cette substance semble augmentée à la surface,
 “ diminuée dans son épaisseur. C’est toujours dans
 “ son épaisseur que j’ai vue l’altération de couleur et la
 “ diminution de consistance plus prononcées.”

And again,

“ J’ai vu quelquefois dans des cas très-aigus d’alié-
 “ nation mentale, des épanchemens du volume d’une
 “ petite tête d’épingle parsemer la substance *grise* des
 “ circonvolutions.”—Foville, Dict. de Médecine Pra-
 tique, vol. i. p. 535.

Mons. Foville continues always to trace to alterations
 in the cineritious portions of the brain the appearances
 which he believes to be indicative of mental derange-
 ment ; in fact, to be the material representation of the
 disease.

I must refer to his paper in the Dictionnaire de
 Médecine Pratique, as it is too long to quote en-
 tirely.

The following is the most important passage :—

“ La plus constante de ces altérations est à mon
 “ avis la suivante : la partie la plus superficielle de la
 “ substance corticale a acquis, dans une épaisseur uni-
 “ forme et peu considérable, une consistance sensible-
 “ ment plus forte que dans l’état sain : en même temps,
 “ la consistance des parties le plus profondes de la
 “ même substance est diminuée, de sorte qu’il est facile
 “ d’enlever à la surface une sorte de membrane d’une
 “ épaisseur uniforme, lisse en dehors, tomenteuse en
 “ dedans, d’une couleur plus pâle qu’à l’état sain.
 “ Les parties qui restent au-dessous sont, au contraire,
 “ beaucoup plus rouges, mamelonnées, molles, et
 “ représentent, s’il est permis d’employer une com-
 “ paraison très-grossière, la surface d’une plaie, les
 “ bourgeons charnus, sur lesquels serait appliquée une
 “ sorte d’épiderme.

“ Si l’on racle avec le tranchant du bistouri la sur-
 “ face de la substance grise non entamée, on éprouve
 “ une certaine résistance ; et lorsque cette résistance
 “ est vaincue, le bistouri pousse devant lui un lambeau
 “ de la partie endurcie : il en résulte une sorte d’écor-
 “ chure. Si l’on racle à la surface de cette écorchure, on
 “ enlève avec la plus grande facilité la substance grise,
 “ ramollie, et sans plus de cohésion que la pulpe d’un
 “ fruit cuit. Ainsi des caractères bien tranchés dis-
 “ tinguent en deux parties la substance cortical dans
 “ ces cas.”—Page 536.

M. Foville concludes by being convinced, that this
 sort of membrane which he describes is not “ une
 “ pseudo-membrane accidentelle.”

After having repeatedly read with great care at different periods these observations of Mons. Foville, the only ones which affect to associate mental derangement with a specific change in the brain, I have not either myself, or with the assistance of friends, whose zeal and anatomical knowledge are well known *, been able to satisfy myself that such appearances are often met with in the brain of lunatics. At the same time, it is fair to say, that any individual physician's endeavour must weigh light in the judicial balance on such a subject. A large, very large portion, recover; of the rest, friends often object to any inquiry. A physician may observe with constant zeal, for seven years, a case of this kind, hopeless in itself, but still wishing to connect some of the singular symptoms and peculiarities with alterations in the brain, and thus add one fact to the inquiry; but he is met by the absolute prohibition of friends to make a post-mortem inquiry. Great opportunities are afforded by the large Royal Hospitals; but even here (I mean no disrespect) such inquiries require to be made with previous knowledge, with a firm desire not to be led away by ordinary appearances, nor governed by prevailing theories.

I fear that from pathological appearances I cannot agree to the division of functions between the cineritious and medullary portions of the brain into the intellectual and organic.

Two very striking cases occurred to me, one at St.

* I may here mention particularly my distinguished friend, Mr. Prescott Hewitt.

George's Hospital and the other in private, which in my mind throw discredit on these prevalent opinions. A youth of good talents and industry, described as more than ordinarily quick, was admitted into St. George's Hospital with symptoms of inflammation of the brain, which after a very few days proved fatal. From the commencement of his illness to his death less than a week passed away. On opening the head a very singular appearance presented itself; a number of small yellow tubercles, about the size of large rape seed, occasionally nearly as large as a pea, studded the cineritious portion of the brain. They were very numerous, but not one was found in the medullary portion.

Here, then, was a case with most universal and extensive disease of the portion of the brain supposed to represent the intellectual functions, when until the illness (a very few days) of the patient, he had possessed, not in the least impaired, the intellectual qualities, but in a rather higher than in an inferior degree to those of his class and age.

The case attracted much attention, and is in the remembrance and, I think, among the notes of several friends.

The next case is the converse. A gentleman, whose lunacy supervened several weeks after a fall, and continued for more than a twelvemonth, was examined after death. There had been no paralytic affection, nor fits. The cineritious portion of the brain appeared natural, but the whole of the medullary substance had under-

gone that change which is observed on submitting the brain to immersion in alcohol. It appeared throughout to consist of a number of fibres, many of which could be isolated and exposed on the point of the scalpel.

Here, then, the organic portion of the brain appeared the portion extensively diseased, and yet it was in the intellectual faculties that the disease was manifested. In accidents, also, portions both of the cortical and medullary substance are removed without any alteration in the subsequent condition of the faculties of the mind.

But I will not pursue the subject further than to express my conviction, that hitherto no distinct relation has been decidedly established between mental derangement and organic disease, except the certainly fatal event when organic disease exists in conjunction with mental derangement. Thus a wide field is open for the observation of those who have the care of lunatics, in endeavouring to discover whether any or what lesion or change exist in the brain itself, as a cause for the long and hitherto inexplicable duration of this dreadful malady, especially in cases of hereditary insanity; this last being the most curious as likely to lead to the most important results, especially as to the great point, whether this predisposition, as is the case with gout, scrofula, and lues, is transmitted through the blood, or through some hitherto ill-defined impression on the solids of the body, the configuration of the brain and its envelopes.

The state also of the memory, the principal function of the brain, which depends on the perfection of the organ, is to be carefully considered. In old people the deficiency appears traceable to ossification of the arteries, and the first failure often precedes it.

I was consulted some years ago about a gentleman, æt. 40, who, without any ailment, had lost his memory. He conversed well, and had no palsy ; but he did not remember at four o'clock what he had had two hours before for dinner. A very short time afterwards he lost the use of his lower extremities, and died a few months subsequent to my visit.

When any organic disease of the brain exists, illustrated by loss of power in any of the limbs, epileptic fits, indistinct pain in the head, accompanied by dimness of sight and loss of memory, especially after thirty years of age, the treatment mentioned before is not applicable.

An example of this is the following :—

A gentleman of fortune had taken on his own hands a double speculation. In the duties prescribed to himself difficulties arose as to carrying on so large an undertaking. During the midst of these anxieties he slipped in going from one part of his large premises to another, and fell about ten feet. He had much pain in the head, was cupped, took aperient remedies, and, as far as his family could oblige, rest. About six months afterwards he was attacked by melancholy mental derangement, alternating with violence

Every pains was taken for his recovery, and when I saw him, a twelvemonth after, he was like an old hypo-

chondriac, never wished to leave his bed, was in great affliction when by entreaties made to rise, becoming violent in order to return to it, taking little food, and moaning often as in great distress.

In this case the treatment appeared to sooth him for a time, but in the continuance was useless. Here the bowels, as in disease of the brain ordinarily, were difficult to move beyond all common experience, and when solution of the bowels was effected, it appeared solely to be the result of the medicine and the secretion of the bowels passing through them.

It may be mentioned here, that during mental derangement, whether maniacal or melancholic, the occurrence of epilepsy is a certain proof of the incurability of the disease. In very severe cases, the attacks of epilepsy, previous to the death of the patient, are so frequent and so severe as to leave the utmost surprise on the mind of the physician that human life can endure, even for a few days, under such attacks. And yet these continue for weeks, and sometimes for months, daily, and often several fits occur in the twenty-four hours.

“ L'épilepsie compliquée d'aliénation mentale ne guérit jamais.”

ESQUIROL, p. 317.

Still it is a very remarkable circumstance, that occasionally, in epilepsy supervening on mania, the patient's mental distress becomes modified: he has more knowledge of what is going on around; his violence is changed into depression and sadness, and hopes are entertained by his friends of his recovery. Such a

state usually precedes by a few weeks only his decease. I have seen three or four of these cases, where similar changes have taken place; but though mental disease was rendered less severe and afflicting, death ensued within a few months of the first attack of epilepsy.

I can scarcely enter here on the subject of mania very little amenable to the remedies which I have described. In the early stage, the use of tartar emetic and the shower-bath, counter-irritants and purgatives, have been, in my observation, the best remedies. But none of these should be employed without careful inquiry into the state of the patient. This inquiry is usually restricted to the fact of a quiet pulse, a clean tongue; in fact, to the absence of fever. But the state of the heart, of the lungs, of the abdomen, should be carefully inquired into before any treatment is adopted. There are secondary causes; but on the condition of these the state of the brain itself often depends. Has the patient ever had fits? has he any deficiency of motion or sensation in his limbs? has he half vision or double vision?

There are some cases of mania, immediately succeeding to concussion of the brain, which are curious for the investigation of the physician. I have seen three of these cases, and all recovered. In one, a young gentleman in the army, full of health and spirits, was thrown from his horse in riding a hurdle race. He suffered much from pain in the head after recovery from the immediate effects of the accident: but worse accidents followed. Every afternoon, for many weeks,

he had a violent accession of mania, and this lasted until a late hour of the night. Kind and affectionate friends devoted themselves to restraining and watching him during the dark hour. This, then, partook of the nature of epilepsy, the fit ending in quiet, while the senses became afterwards entire.

In May, 1845, I was consulted for a young gentleman, who had suffered two months previously from a blow on the head, in falling from his horse. He remained many days, nearly a fortnight, comatose, and became subsequently maniacal. In his paroxysms he was violent and destructive; when quiet, insane; but when the paroxysm occurred, requiring the efforts of several men to hold him. In this state I saw him, and with the remedies prescribed, which I shall mention by and by, he improved greatly: presently there arose distinct intervals of ease, subsequently days of quiet; in two months a perfect interval of twelve days. I then told his friends that I felt quite satisfied he would recover, but that he would be liable for some months to relapses. In October, there was another long and perfectly lucid interval; at this time he went into the country, without being accompanied by a medical man, and seemed to improve greatly; but a sudden relapse ensued, and he was immediately brought to London, the journey greatly exasperating his symptoms.

This return induced persons about him to seek for other opinions, without communicating such an intention to me. I was, therefore, obliged to relinquish the further charge of the case, but the gentleman who suc-

ceeded me as medical attendant pursued the treatment which I had recommended. The opinions of persons about him, and medical opinions hastily given after a single interview, recommended an asylum, to which I felt greatly opposed. The youth, the accidental illness, the certainty in my mind of his recovery, from having seen similar cases recover, the sensitiveness of the youth himself likely to be greatly shocked in his lucid moments by being in an asylum, made me very averse to such a measure, and I stated this in an affidavit before the Master in Chancery. Still the affidavits of those who had seen him *once* only were so strong, and the measure on the part of those who acted for him so pressed, that the Master came to a resolution to place him in an asylum. Between, however, the making, and what is technically called the bringing up of the report, the young gentleman recovered, and at the time the report was brought up he waited himself on the Master, in full and entire possession of his faculties. These faculties have continued uninterrupted since that period.

The treatment of such cases is wholly different from that laid down in former diseases. Blood-letting, ample, and repeated immediately after the concussion, is absolutely necessary, and, if neglected, on the appearance of the maniacal symptoms must be repeated, by cupping or leeches, twice on alternate days.

After this a seton inserted in the neck will be of the greatest service, and an interval of ease for a short time may be expected. To this should be added the use of calomel, succeeded by brisk purgatives. As the disease advances, when a lucid interval occurs for

the first time, it gives great hope to the patient's friends, but when the accession comes again, calomel must be given in brisk doses every alternate night with purgatives. Every evening the feet should be immersed in hot water with mustard flour, and the cooling, formerly called antiphlogistic regimen, pursued.

I feel satisfied, from the cases which I have seen, that such treatment, modified according to the particular case, will terminate in the entire recovery of the patient, but with regular treatment, which must be followed for several months; rarely is this permitted, from the impatience of friends.

Some have heard of homœopathy, some of galvanism, some of specifics, and thus great obstacles are raised to a treatment, in my opinion certain, in this particular form of disease.

This applies, of course, to mania supervening on recent concussion. There is some reason to believe that mania succeeds occasionally to falls or blows on the head, after a long lapse of time. Here the plan is manifestly improper; nor, in cases in which such remote cause has been suspected, have I ever seen recovery take place.

In speaking of the treatment of persons labouring under mental derangement, it is impossible not to speak of the asylums open to those whose afflictions require they should be removed from their family.

That such establishments are essentially necessary no doubt can exist. I will take one or two examples from nature, of the necessity for such establishments.

Example I.—A widow lady, of the highest respectability, with a small income, came to London with a daughter affected by mental derangement. An attendant was placed about the patient, with strict injunctions not to lose sight of her for a moment, because the tendency of her disease was to suicide. Notwithstanding every care, a momentary absence of the nurse occurred, and though the family were warned of the danger from suicide, the patient threw herself out of the window, was much bruised, but brought home alive. What was to be done? The finances of the mother prevented the possibility of her being kept in lodgings with nurses—to remain at home was impossible. She was removed to an asylum, where great care restored her bodily, and in a few months her mental health. Here is an example of the necessity of such institutions. Life would have been extinct without the power of resorting to such a means of cure.

Example II.—Again, a tradesman with no more than can just covers his expenses, has his wife affected with derangement in her confinement. She does not recover: she would recover, were there means for medical attendance, for the care of her child, and the necessary attendance: the three are impossible. She is placed for a few weeks in a well-regulated house, and she recovers.

Every one would wish that this was not necessary; that means could have been found for medical cure, for care of the child, and for the nursing of the mother:

but this was impossible. Here is a case where necessity is urgent for an asylum.

Example III.—I now approach a higher order of things. A man of rank becomes suddenly and violently insane; his malady is greatly aggravated by his giving commands to his servants which they *cannot obey*. He becomes furious, and must be removed from home. The alternatives are a private house with attendants, or an asylum.

If, especially in the commencement of the disease, a private house can be taken, and one of the family will live in it, this is (under medical care) the best measure; but if no relation or friend live in the house, I feel satisfied it is a most ineffectual, and worse than ineffectual means of cure.

Let us again have an example:—

Example IV.—A gentleman, formerly in the Army, and with habits of irregularity, is taken ill.

After a short time his friends (with great difficulty) take a house for him. He has two attendants at a great expense. No one lives in the house. He is left to two well-meaning people. It must be remembered he is a lunatic, with the perverted sagacity of his nature. He soon discovers the weakness of his attendants,—one is vain and wears a ring, another is religious, another likes brandy and water. The patient (I speak of maniacal, seldom of melancholy patients) speedily discovers it, and all that spite or violence can imagine

is levelled on the unhappy keeper. It is fair in the observation of human nature to believe that this is sometimes visited in return on the lunatic, and never was a question more applicable in this case than the famous one—

“ Quis custodiet ipsos custodes.”

Hence, in private confinement, I have long since refused to attend, unless one of the family, or at least a near friend, or an old and favourite domestic, resided in the house. Where it was thought necessary (a rare occurrence) the patient should not be seen, they ought still to be in the house, or at the least in the immediate neighbourhood.

I am aware that this opinion is not accordant with the experience of others, and I do not wish to offend: I write down only what has pressed on my observation by much and very anxious inquiry.

As the confinement of persons in private houses, from its great expense, must be a rare occurrence, I cannot help offering some “Thoughts” on the asylums most necessary and most useful if properly cared for. I must, however, in common justice, premise that during my period of duty as a Commissioner of Lunacy, I never witnessed one case of *cruelty*.* The greatest care was taken, the most assiduous, nay, the most invidious (to innocent people) inquiries were made. Every suspicious case is examined on evidence, and never any case of *cruelty*, nor anything like it, occurred.

* This applies to the houses visited between 1830 and 1838. I have no knowledge of houses in the country: my remarks apply to asylums situated within London and seven miles thereof.

The accommodations in private asylums were of course different, but I repeat again, in no single instance was there anything like cruelty or wickedness. When wishing for alterations in many respects, I am bound to say this much in favour of such establishments.

These observations especially regard the less favoured by fortune.

To those who are rich, in many houses every accommodation is afforded. Still, I must be allowed to give utterance to my "Thoughts" on these points.

1st, then, it has become a system, partly from tradition, partly from usage, no physician taking it up, that no one can recover except when removed from his family.

2d.—That it is not only desirable, but necessary, that the patient should not see his friends, except on visits very few and far between, during his confinement.

3d.—An extreme disinclination to let the patient have a trial; that is, to be removed home.

Let us examine the first objection.

I can assert from my own knowledge that this mode of proceeding is common.

I have seen many cases myself which would have been sent from home, unless further medical assistance had been sought, and whose health was restored without such a measure within a few weeks.

Something is to be attributed to the indisposition to undertake a difficult and unmanageable case by men actively engaged in the profession. They answer, "really this is a case I am not accustomed to; you

“ must send to one of those gentlemen who make it “ their exclusive study.” Now, this is precisely what I think to be erroneous: it is because they make it their exclusive study, that I think they are less good judges than they otherwise would be of the *cure* of such cases.

I think no one should be sent to one of these asylums until it has been ascertained that medical means properly directed will not restore the health; and this is the more necessary inasmuch as by far the greater proportion of asylums for persons who cannot pay for long continued attendance, and hence have not the chance of early recovery, are kept by persons wholly ignorant of medicine or of pathology in any form.

It is true they are overlooked by the Commissioners, and when the patients exceed a certain number they must be visited periodically by a medical man, but these visits never relate to the endeavour to *cure the disease*; simply to note the aberrations of violence, or the deviations from general health.

It has occurred to me to see several cases already recommended on these principles to asylums, who have recovered without such a measure. I do not in the least doubt the necessity in many cases; what I dispute is the general rule and its application,—the result of the supineness, and I grieve to say, the indolence of many medical men, who will neither learn nor appear to be ignorant, and between the two consign the patient to an abode, where he will be kindly treated, but where no thought of cure enters the idea of those about him,—I mean systematic treatment for cure. How easily,

when such views are abandoned, apathy as to recovery takes their place.

On the second point, the visits of friends, I have a still stronger *opinion*. Here, indeed, it is not necessary for any objection on the part of those who are attached to lunatic asylums, for human nature presents enough obstacles of itself.

When first a patient is placed in a lunatic asylum, the friends are solicitous to see him—at the period, in fact, when these visits are the least likely to be useful; a few weeks elapse, he is no better; the visits discontinue, after a time disappear altogether. Then time takes this affair into his own hand; the early affectionate and solicitous die,—a new generation succeeds. It is whispered *they have a relation*; but no relation, or a very old one, has ever seen him. “Yes, my dear, your mother or uncle (as the case may be) used to go, but it did no good, and was so distressing that he gave it up.” And thus, after some years, and in extreme cases, I have known persons who had never seen friends or relations for many many years. I shall be answered, who pays for them? This is often sent from an agent, nearly a stranger to the family.

Now who is there amongst us who would think a large estate, even under the wisest superintendence, perfectly managed without occasional personal inquiry? Who but inspects his books periodically who is a merchant? Who trusts to the best of servants in finance; but even setting aside finance, in all other considerations? Is it not, then, more than necessary for some one to watch the condition of the lunatic? It changes;

in the worst cases it is susceptible of relief, of comfort, even of joy; remembrance is called up on occasion of those once loved; the moment of returning affection may influence returning reason. It has done so in more than a few cases.

I lay more stress on this point, because I *know* I can prove its difficulty. Affection lasts some time after the beloved is in a legal grave, but when told that harm comes from the visits, injury from affection, and great pain is felt from seeing the destruction of intellect in one beloved, the mind settles down to the necessity of not visiting. “They told me not.”

To illustrate this, I may quote the best medical opinion for many years, as it came from a general physician, who was very extensively consulted on this disease, the late Sir Henry Hallford.

When asked upon the Committee of the House of Commons, in 1814, whether he could suggest any great improvement in the treatment of lunatics, he replied, “The greatest advantage would be derived in obliging the friends of the lunatics to *visit*.”

Perhaps this influenced the opinion of those who brought in the New Lunatic Act, in the reign of George IV. (1828.) By this act any one who authorised the confinement of a lunatic was obliged to visit him either personally, or by any *other person appointed under his hand and seal, once in every three months*: no great hardship, it would seem; but such is the superstition of this country, that to be allied to a lunatic is a disgrace—the alliance not a disgrace, but the discovery of it—that on the renewal of this act, this clause,

so trifling an approach in its effect to real good, *was expunged in the House of Lords.*

Much has been done by legislation, much by the influence of the Commissioners, who work with great zeal and humanity: but I feel convinced nothing can ever be of the use which would ensue from a systematic course of visitation by friends.

Of course there are exceptions to every rule, and I freely acknowledge there may be cases where the visits of friends, especially at the commencement of the malady, aggravate the evil. Such a stage is very short, and, moreover, when such a state exists, the visit must be only of a few minutes' duration.

I have seen, I ought to add, several cases in which, in my opinion, no kind of excuse existed for precluding, nay for not encouraging the visits of friends.

On the third point, the permitting patients in a state of convalescence to have a trial, I feel satisfied that many patients, whose homes offer a fair hope of care, would recover, and have recovered, by being removed home, even when the degree of relief in an asylum has been doubtful. I have seen several cases in which such a change has had the most beneficial effect—cases considered doubtful, of men who have since conducted themselves with propriety, and in some few in which I felt satisfied that their restoration to reason was the undoubted result of the restoration to society.

I feel all the difficulty. A patient long removed from home, seeing his or her family only occasionally or rarely, returns under the greatest disadvantage. Is it a wife and mother, estranged for years under a moral

death, in what condition does she return? To great changes in her family: leaving infants and finding them lads, grown out of her power, and with new and strong attachments, or still worse; for the absence of years, with all the accompanying distress, amounts often to widowhood.

In other cases the return home is met by all the difficulty of families: ill health and misfortune have visited the family who could previously have received a sister, an aunt, or a cousin; absence without the usual interest has slackened the tie, while increasing cares have rendered such a course of relief (the reception of a recovering lunatic) impossible. These, added to the constant answer, "Yes, sir, she is well now, but *a fortnight ago she was very high*," accounts for no trial being given.

And still I am of opinion, with Dr. Haslam, that the advantage and happiness of home are not sufficiently often had recourse to in the *cure* of these diseases.

These considerations are rendered more important by reflecting that scarcely any duration of insanity absolutely precludes the restoration to health.

I saw a case of a French gentleman who recovered at the age of seventy-six, after a confinement of fourteen years' duration. He was restored to liberty, went home, and died two years afterwards, of the natural effects of old age.

Another case recovered after nineteen years' confinement, was restored to liberty, and did not in any way abuse the newly recovered privilege, dying a natural death about two or three years afterwards.

Such cases are extremely rare, but as they do exist they more than ever impose the necessity of considering, in every possible way, the cure of disease.

No doubt could exist of the decided insanity of both these individuals during the earlier period of their confinement.

Similarly, in private, I remember a case of a gentleman who during his life had three distinct attacks of melancholy mental derangement. The third occurred at sixty years of age, and the patient lay in bed nearly two years ; at the expiration of this time he recovered, and survived his recovery several years.

These, and several similar cases, have occurred under my observation. They did not owe their recovery to me, or to the practice on which I have laid so much stress.

" Go charge my goblins that they grind their joints
 With dry convulsions, shorten up their sinews
 With aged cramps," &c.

SHAKSPEARE : Tempest, Act iv.

IV.

ON SCIATICA.

THE disease called Sciatica, to whatever its original meaning might have been restricted, is now commonly used to signify a greater or less degree of pain following the course of the great sciatic nerve ; whether pain from inflammation or disease of the nerve ; or pain symptomatic for the first time of disease in the brain, or from gouty disposition, or from disorder in the stomach.

In each and all of these cases, however different in their original seat of disorder, a pain greater or less affecting the great sciatic nerve, or even when affecting other large nerves in the body, has received the name of sciatica.

The principal feature of the disease, though derived in the worst cases, from these various causes, is *pain*, *acute pain*. In many cases the patient only complains

of a dull heavy pain at the back part of the thigh, most severe in damp weather, severe after walking, and especially on ascending a stair, often increased after a full meal, and principally after the limb has been cramped by sitting. This is the milder form of disease.

In the second form, the low grumbling pain in the course of the nerve is scarcely ever absent, but in addition violent accessions come on, with comparatively long intervals of ease. In the paroxysm the pain is described as of a pistol-shot discharged down the course of the nerve, and the suffering is extreme. This is the second degree of the disease.

Lastly, the patient is quite unable to move the limb; when moved, the pain becomes excruciating to so great a degree, that the patient will not willingly permit a friend to approach his bed, or walk quickly on the floor, lest the movement of surrounding objects, or of the bed, should renew the pain.

Nor is this all: generally at night, most frequently about midnight, violent pains come on in the nerve; the limb, formerly motionless, now shakes so that even force can hardly restrain it; the muscles and tendons are affected by the cramp, and the unhappy patient lies screaming often for several hours in torture. Towards morning the pain becomes diminished, and the patient falls exhausted into slumbers, without which it appears to be difficult to conceive how life could be prolonged; for such paroxysms sometimes recur nightly for weeks.

What is singular is, that in most of these cases, and invariably in the last most severe form, there is no fever

present. The tongue is clean ; the pulse under eighty ; there is no heat of skin, nor thirst ; in fact, no symptoms which accompany inflammation, either of a superficial or deep seated part.

After very severe or long continued pain, swellings of the muscles into knots, or nodes, in the affected limb take place, and on the subsidence of these swellings deep and extensive bruises are often found occupying the seat of the preceding swelling.

The disease is considered to be amongst the most difficult to cure by our art. Several obstacles have presented themselves to a more clear understanding of its nature. In the first place, it has been looked upon entirely as a disease of itself, and not as a disease of a system, or of parts at a distance, and hence with reason it has been delivered over to empirical practice.

A person who has suffered some months from this form of disease will send for a new adviser. He relates his case : " I have tried everything, cupping and blisters to reduce inflammation ; sedatives, opium, belladonna, stramonium, &c. to diminish the sensibility ; electricity and galvanism to increase the sensibility of the nerves. The application of the magnet in the course of the nerve, cramp rings, cod-liver oil, calomel and opium, sarsaparilla, acupuncture," &c.

Now it is quite clear to me why the patient did not recover. With the exception of the magnets, cramp rings, and cod-liver oil, there are none of the above remedies which, properly applied, have not been of use. But how remedies of completely opposite effects in the animal economy, heaped one on the other as the im-

patience of pain demands, could cure the disease, it is difficult to imagine.

I will take an example. The pain occurs most severely in the night; the body wastes, the appetite declines: at length it is remembered that there was a taint in the constitution for which large quantities of mercury had been taken. Sarsaparilla is of course given, with mezereon, &c. The patient recovers. Every body, male and female, within the circle of the friends of this patient, are immediately informed of the wonderful cure effected in an obstinate case of sciatica, after every thing had been tried, by sarsaparilla. It can scarcely be doubtful that the farrago of medicines which the patient had swallowed were injurious to him, and tended to diminish their real efficacy in the opinion of the profession.

The first thing to be done when consulted for a case of sciatica is to ascertain that it really is purely painful affection of the sciatic nerve. Now there are two diseases for which it has often been mistaken; in my own experience, more than once or twice, viz.—1. Disease of the hip-joint; 2. Disease of the kidney, especially the secretion of uric acid by that organ.

Painful affection of the sciatic nerve is distinguished from disease of the hip-joint by no pain being felt on pressing the head of the bone upwards against the acetabulum; by the pain not being increased on striking the heel on the ground; by the absence of swelling and pain in the groin; but, above all, from the absence of fever at the commencement, especially in adults, and of shivering or cold sweats as the disease

proceeds to suppuration ; and, finally, by the pain on pressure in any part of the sciatic nerve, when this is really the seat of the affection.

Nephritic disease is distinguished from sciatica by pain in the fore part of the thigh, numbness in the groin, the occasional tenderness of the testicles, and the drawing up of one of them towards the belly ; frequent micturition ; by the presence of crystallized lithic acid, or lithate of ammonia, in the urine ; by occasionally a fixed pain midway between the umbilicus and the spine of the ilium.

In a paroxysm of nephritic colic, the muscles of the leg on the affected side are often for a time affected by spasm and cramp in the same way as in sciatica.

Having thus ascertained that pain in the course of the sciatic nerve is neither connected with incipient disease of the hip joint, nor dependent on irritating secretion in the urine, the physician must proceed to inquire whence it proceeds, and whether it is idiopathic, that is, depending on the state of the nerve itself, or symptomatic of disorder of the stomach, or of syphilitic taint, or, finally, whether it is the first indication of disease in the brain itself.

The first attention should be paid to the general health of the patient. Is he robust, living well, taking much food and little exercise, having enjoyed good health for many years ? If this be the case, it is more than probable that a brisk succession of purgatives will cure the disease ; such pain, if on the right side, occasionally depending on distension and obstruction in the caput coli ; or, if it has succeeded to cold blasts,

upon the body being in the state mentioned, then cupping, followed by blisters, will be useful to relieve the pain ; or the vapour-bath, or diaphoretic remedies carefully continued, will cure the case.

And this is the mode, in fact, by which almost all cases of this disease are first attacked, whether involving the constitutional condition of which I have just spoken, or the contrary.

We will consider another case. A middle-aged man, worn by the increasing toils of a professional life, hopes to regain strength by a period of relaxation from daily care, and forgetting the poet's idea of the life of Paradise, "rest and alternate labour," he substitutes one species of fatigue for another : long walks, climbing up cliffs and hills, supply the place of the dull monotony of daily practice, but, though in a different mode, scarcely less exhausting. He is attacked with violent sciatica, excruciating pain coming on in paroxysms, and shooting down the whole course of the nerve.

Such is the influence of habit over discretion, that such a case as this has been considered to be inflammatory, and cupping, leeches, blisters, and mercury immediately recommended, under the idea that the pain must arise from inflammation. Now is it not clear that, under such cases, with a patient half exhausted, of slight habit of body, though with usually good health, that the painful affection of the nerve is to be soothed by sedatives, while the muscular force of the body is upheld by nourishment and strengthening medicines, given carefully and by degrees ? Nor is this an imaginary case. The description I have given is

that of a case which happened some years ago, and from which the patient recovered by the following means. Perfect rest was enjoined; nourishment given frequently—from half a grain to a grain of morphiæ acetat given at night in the following draught; and two of the following pills twice at first during the day.

℞ Pil. Galbani Comp. ℥j.
 Extract. Conii, ℥ij.
 Quinæ Sulphatis, ℥j. M.
 Ft. pilulæ xxiv. æquales.

℞ Acetatis Morphicæ, gr. $\frac{1}{2}$. (M. xx.) (Gr. j. in 40.)
 Aquæ Flor. Aurantii, ℥j.
 Aquæ Fontanæ, ℥x.
 Syrupi Aurantii, ℥j. M.
 Ft. haustus horâ somni sumend.

This case completely recovered in the course of a month; nor has it after many years returned.

In every case, then, the first consideration is to be given to the habits of life and constitutional powers of the patient, unguided by any hypothetical consideration that sciatica arises from an inflammatory condition of the nerve.

The next consideration in the treatment of this disease is the state of the stomach. Is the patient a gouty man? Has he suffered from gout? If he has, and this painful affection occurs in an interval of the disease, it may fairly be classed with other cases of erratic gout, and treated accordingly.

The various preparations of colchicum will be of great importance; but in the cases which I have witnessed (and they were very severe), quinæ sulphas in large doses given in the day time, with thirty drops of

the wine of colchicum in a draught at night, were most effectual; but neither separately produced permanent relief.

But I must not be understood to say that the preparations of colchicum are only advisable in cases of sciatica which are more or less connected with gout. On the contrary, the “*anima articulorum*” is very frequently successful in the cure of this disease, where it arises from cold or working in the wet, especially among the labouring classes.

John Massey, æt. 30, admitted Feb. 3, 1836, into St. George's Hospital, affected by sciatica of the left thigh and leg of one month's duration. Pulse small and quick. Tongue slightly loaded. The pains are occasionally increased by warmth; neither redness nor swelling present; no heat of skin.

Succi Spissati Colchici, gr. j.

Opii, gr. $\frac{1}{2}$, 4tis horis.

Ut. Balneo Vaporis ter in 7nâ.

February 6th.—Pains in the limbs less.

Haust. Sennæ.

To repeat the medicines as before.

16th.—Pains greatly diminished in the course of the sciatic nerve.

March 2d.—Dismissed cured.

Jas. Oldbury, æt. 58, admitted Aug. 25, 1837. Complaints of pains following the course of the great sciatic nerve on the right side; the pain is much increased by

warmth. Pulse 80, but weak. The pains are of four months' duration, attributed to cold and damp.

Haustus Cinchonæ Comp. ℥jss.

Liquoris Potassæ, ℥xl. bis in die.

Capiat. Extract. Aceti Colchici, gr. iij.

Pulv. Doveri, gr. v. Formâ pilularum omni nocte.

Ut. Balneo vaporis ter in 7nâ.

On the 26th September dismissed cured.

If the patient never has had gout, he labours under feeble digestion, has heartburn, acid eructations, low spirits, and *hoc genus omne* of distress, gathered together under the name of dyspepsia !

In such a case the painful affection of the nerve is not constant, nor is it often very severe, but the distress is felt over a long period of time : for weeks together the patient walks lame, and the pain is greatly increased if he ceases to walk on a plane surface.

He also begins with leeches and a blister, and, if with any advantage, only temporary. Every one recommends something which is *good for sciatica* ! and, if he does not get better, he soon falls into a fair way of being poisoned.

At length, as a last resort, the mineral waters of Nassau or Bohemia have been recommended, and in some cases with benefit, but it is short-lived, and the tormentor again appears.

I was consulted by a gentleman who had for two successive years, at great inconvenience to himself, visited the springs of Ems and Wiesbaden, but the relief was far from complete. When he consulted me

I took care that it should be ascertained by the most experienced surgical opinion that no incipient disease of the hip-joint existed, and this being decided, I simply recommended him to keep his stomach in proper order by the use for several months daily of rhubarb and soda, combined with a bitter and an aromatic. This plan entirely succeeded.

Having, then, ascertained that the disease does not arise from repletion, and is not, as it is most frequently, the result of a long continued constitutional depression, or occurring after large evacuations, or from disordered stomach, great care should be taken to ascertain that no syphilitic taint exist.

Such a state of things is by no means uncommon. Hence the cases we hear of recovery from the use of sarsaparilla. It will be observed, when we hear of a loud flourish as to the cure of sciatica by sarsaparilla, that such recoveries are always in men.

Many years ago I was asked to advise for a gentleman labouring under this disease apparently in both extremities ; his sufferings were very great, and a large consultation was held ; at which, among others, the late Sir Henry Hallford, and the late Dr. Nevinson, were present. The patient's health was greatly broken by pains almost intolerable during the night. Various remedies were recommended from the class of sedatives, and blisters to the seat of the pain ; but in vain.

The patient went into the country, and put himself under the care of a physician who had been a companion in youth. He recommended a mercurial course and sarsaparilla with excellent effect.

Twenty years afterwards, this gentleman was, though greatly advanced in years, in excellent health, having never had any return of his pain.

The following is another example of the cause and cure of one form of sciatica.

Richard Blackall, æt. 39, admitted into St. George's Hospital, October 15, 1845. Complains of pain in the lower limbs, without redness or swelling, nor has he perceived any at any time.

The pains follow the course of the great sciatic nerve, occasionally shifting from one side to the other.

The pain is of several months' duration.

He was ordered to drink daily,

Decoc. Sarsæ Comp. lb. j.

Ext. Sarsæ, ʒj. M.

And to take Opii gr. j. at bed-time. The vapour-bath twice in the week.

On the 22d the pains were reported less, and on the 3d of November he was dismissed cured; the pains having entirely ceased.

In all these hospital cases great good is to be attributed to better diet, and a perfect rest from labour.

I have now spoken of the various cases which occur from symptomatic or constitutional disorder. This leaves me to speak of what is called the idiopathic case, where severe pain exists in the course of the nerve without any discoverable cause at a distance.

Of all those who have written on this complaint the most perfect work is that of Cotugno, or Cotunnus, as he is generally called, a Neapolitan physician about the

person of the Emperor of Austria. He lived to a great age. Hence his work may be looked upon as an ancient classic on this subject.

He appears to think that the disease arises principally from effusion of fluid into the sheath of the nerve, and his mode of cure is to destroy or cause to be dispersed this fluid which presses on the nerve.

To begin this, it is right to arrest the process of secretion of fluid, which he considers to be an inflammatory process.

Hence leeches, cupping, issues, are recommended ; or after the cupping a succession of blisters, which he thinks will cause the fluid to be dispersed or absorbed.

That this disease exists of itself there can be no doubt. It sometimes also, in very rare cases, goes on to the death nearly of the limb, and when such cases are examined after death, the nerve is found altered in structure, hardened, grey, and shrunk.

I cannot say I have seen many cases of this last effect of disease ; those which I have seen of pure sciatica were principally in-patients in the hospital, labourers of strong constitution and good health, who could not rest by night, nor walk by day, without excruciating pain.

Occasionally, the local means mentioned have relieved the case, and in some instances cured it. The most remarkable relief which I have ever witnessed in any disease has been in very severe sciatica, not referable to constitutional causes, from the use of what is called *acupuncture*.

The patient lies on his stomach, and six pairs of

very fine needles, made for the purpose, are carefully inserted at the distance, one pair from the other, of one-fourth or one-sixth of an inch in the course of the nerve. This is done slowly, and is accompanied by little pain.

The operation requires much nicety, and should be done with great care. I attribute several failures to this want of manipulation alone. The cases which succeeded in the hospital were superintended or conducted by my friend Mr. Prescott Hewett, who had witnessed the practice in France.

This remedy appears to have been introduced from China, but, instead of gold or silver needles, highly polished steel needles are used in the operation.

From the year 1820 to 1830 this mode of treatment occupied the attention of the French physicians, and of some among our brethren. Dr. Elliotson and Mr. Churchill here, and, among others, Mons. J. Cloquet in France, were satisfied of its efficacy.

Dr. Elliotson says, "he has employed acupuncture very extensively, both in private and in St. Thomas's Hospital, in rheumatism. It is useful chiefly in the rheumatism of fleshy parts; and the more so as *the disease is less inflammatory*. Indeed, where the parts are hot, or the pain is increased by heat, the remedy is generally useless, and cannot supply the place of anti-phlogistic measures. *On the same principle I have never seen it beneficial in any inflammation or inflammatory pain.*" (Med.-Chir. Trans.)

In these views of Dr. Elliotson I entirely concur, and under such modifications as he lays down in the

preceding passage, I cannot but hope it will receive more favour than it hitherto has done from the profession.

M. J. Cloquet is said to have employed it in four hundred cases, of which two-thirds were either cured or greatly relieved. He has given the history of ninety-one of these cases.

It has been believed that acupuncture acted by subtracting the superabundant electricity in the diseased part. Under this idea M. J. Cloquet adapted a little chain to the needle, the extremity of which he plunged into water. But the researches of natural philosophers have not confirmed this idea, and hitherto no electrical or galvanic phænomenon has been proved in reference to the action of this remedy.—(MM. Merat and Lens : art. "Acupuncture.")

If the opinion of Cotunnus as to the pathology be correct, the benefit arises from setting free the fluid contained in the sheath of the nerve. I am inclined to be of this opinion. Where the sensibility of the nerve has been diminished, I can easily understand that the galvanic or electrical influence will recal the lost sensibility. But it is very difficult to understand, how parts already increased in sensibility can be cured by a remedy which tends to increase the function in its intensity; and, in fact, I have seen great advantage in the passing of electrical shocks, or the current of the galvanic fluid, through paralysed limbs remaining paralysed long after the effusion in the head, which had produced it had been removed, or rendered innocuous by the adaptation of parts; but

I have never seen these agents of use in painful sciatica.

It is from substances of the class of sedatives, which either render the brain less susceptible to the perception of pain, or which by sleep interrupt the course of morbid actions, that relief has been sought. The principal of these are belladonna, stramonium, hyoscyamus, and, above all, the various preparations of opium.

Stramonium was principally introduced into this country for the cure of nervous pains, but more particularly for sciatica, by the late learned Dr. Marcet, physician to Guy's Hospital. The extract was made by Mr. Hudson in the Haymarket, and the process of making it (a matter of great importance) was as follows:—

“One pound of the *seeds* of stramonium, after being well bruised, are boiled with three gallons of water down to one gallon. The decoction is strained, and the seeds are again boiled with one gallon more of water to two quarts. This second decoction is strained, and being mixed with the former, the whole is allowed to stand for twelve hours. The liquor is then drawn off free from *fæcula* and oil, and evaporated to a proper consistence, the latter part of the evaporation being performed in a water-bath.”

The quantity of extract yielded by one pound of seeds is from an ounce and a half to two ounces. From one quarter of a grain of this extract to a grain,

in very severe cases, was given by Dr. Marcet in cases of sciatica. In four cases very great relief appears certainly to have been obtained, but, except in one case of only a fortnight's duration, the cure does not appear to have been permanent.

In severely painful diseases, as cancer, it appears likewise to have been accompanied by great relief, and in two cases of painful affection of the facial nerve (*tic douloureux*), it appears to have been useful in greatly diminishing distress.

I found belladonna, morphia, and opium, in all its forms, so much more useful in the isolated cases of simple pain in the nerve, unconnected with constitutional disorder, than stramonium, that I cannot give a fair opinion as to its utility. I mention it here, therefore, as having been recommended by a very superior man, a physician of undoubted experience, and one who never said the thing which was not.

Belladonna is administered, either internally, or the extract mixed with soap plaster in equal proportions, or as one to two, used as a plaster externally; or the extract dissolved in spirit, in the proportion of one to twelve,* has been recommended. The plaster is the most employed, and it is applied to the course of the nerve with occasional good effect, especially where the disease appears in young females, and is connected with an hysterical state of constitution. The solution

* ℞ Ext. Belladonnæ, ℥j.

Sp. Rosmarini, ℥iss. M.

in spirits of rosemary is employed in the quantity of a drachm being rubbed into the course of the nerve morning and evening, care being taken that no abrasion of the cuticle is present, nor any pimples, which would render the absorption likely to produce temporary blindness and other disagreeable symptoms.

The dose of the extract of belladonna internally is from a sixth to a third of a grain ; but even in the smallest quantity it produces great dryness of the fauces (after more than four doses,) and sometimes the appearance of an eruption on the skin resembling scarlatina. It undoubtedly exercises great influence over nervous pain. I have seen it control local spasms of the face especially, and spasmodic loss of voice, in a very remarkable manner ; it produces usually at the same time symptoms of great depression of vital power. I have seen more than once the terrible disease “*tic douloureux*” suspended for ten years by its employment. It is needless to say that it should be used with very great care.

This is one of the substances which must not be used by what is called the endermic method.

In this mode of treatment a blister is applied to the affected part, the cuticle raised by the blister, removed, and the sedative agent applied or sprinkled on the vesicated surface. Such a proceeding, as far as regards belladonna, would probably be fatal, as its effects on the vital organs by absorption are very rapid. It would appear that the application of strychnia, or of finely powdered *nux vomica* by the endermic method, has

been found effectual in amaurosis, and some cases of paralysis.

In the case of the various preparations of opium this system has been greatly praised in sciatica by the French; they look upon it as a great improvement on the system of blistering recommended by Cotunnus. It has not succeeded in my observation; and it may be observed, that the application of opium or morphia to a vesicated surface is, in many places, accompanied by intense pain.

The next in its effects on the animal economy among the class of sedatives is aconite. This, as used in medicine, is the result of various preparations from the leaves or root of the *Aconitum napellus*, or the *Aconitum paniculatum*.

The latter has been substituted for the former on the authority of De Candolle. It does not appear well proved that the one is preferable to the other. The extract of aconite was introduced into modern medicine, together with those of the plants of the natural family of *Luridæ*, by Stoerck of Vienna; but aconite soon fell into disuse, except for the cure of chronic rheumatism or rheumatic pains, for which it has been much celebrated on the continent; and in our own country the extract was much trusted to by the late eminent Dr. Pitcairn, Physician to St. Bartholomew's Hospital. I have in my possession numerous prescriptions of this most distinguished physician, in which aconite was the principal ingredient; from a quarter of a grain to a grain were given twice or thrice in the day. It then fell into

disrepute, but has lately been rather a favourite with some of the profession, being given for hysterical and nervous pains, and in the painful affection of the sciatic nerves.

I have of course used the extract of aconite in hospital practice, and occasionally I thought the pains of chronic rheumatism were relieved by it, but the effects were so unequal as to make me lose great confidence in the medicine.

Latterly it has become much the fashion to prescribe it in a half grain dose, or less.

I have had reason to believe that this medicine accumulates in the system, and produces its effects on the brain and spinal marrow after some interval of time, and hence I deprecate the treatment in question, especially as the obvious and immediate relief is difficult, or at least has been difficult in my experience, to ascertain.

A young gentleman took extract of aconite for a fortnight, in small doses. He left it off, and had recourse to astringent remedies for his disease—a chronic diarrhoea. One day suddenly he was attacked with loss of speech, unconnected with apoplexy, or any other sudden affection of the brain. He could indicate all he wished, and understand all he heard, only he could not speak, and when asked if he had pain anywhere, replied by putting his finger low down at the base of the skull. Blisters and quiet entirely restored him, and he had no return. He told me afterwards that before he left off the aconite he had experienced the same pain in the same spot, in an inferior degree. The pulse was natural, and there was no fever, or other disturbance,

during his illness. This is one of the cases which induced me to think that too great care cannot be used in the prescription of this remedy.

The alkaloid salt of aconite, aconitina, is a medicine very difficult to obtain, and very expensive; hence removed from ordinary practice. It has been said, I think on good authority, that half a drachm of this medicine* (gr. xv. Adipiss Ppæ. ʒj. Ol. Olivæ ʒss.) rubbed through the course of this nerve, has been found productive of immediate relief,—a great happiness in extreme cases. As the test of cure depends on time, I do not think there is evidence to prove the cure of the disease by this means; at least none such has occurred in my observation.

There is also a tincture of aconite, made by macerating, for fourteen days, lb. j. of the recently dried and powdered root in a gallon and a half of rectified spirit. On the highest authority, that of Dr. Pereira, when applied on a sponge in the course of the painful nerve, it produces very great comfort and relief.

The next medicine is from the *hyoscyamus niger*.

The efficacy of this medicine mainly depends on the purity of the extract.

The celebrated Dr. Fothergill relates several cases of puerperal mania cured by this medicine, but the extract was most carefully prepared by inspissating the expressed juice under the beams of a hot sun.

It has proved very inferior to belladonna, and to stramonium, in allaying the painful affection of

* Pereira's Mat. Med. vol. ii. p. 1812.

nerves in my experience, but it is milder and far less dangerous in large doses. It has a greater reputation on the continent than in this country.

Whenever these remedies are given internally, it is desirable to diffuse them through a medium which of itself is most agreeable to the excited and altered condition of the nervous system. Of these, orange flower water, so much esteemed in France, is the best. One or two drachms, with syrup, in water, will cover the disagreeable taste of all this class of remedies, and may possibly increase their efficacy, as cases are not wanted on record of cure of nervous, and even epileptic cases, by the repeated use of this medicine. And both the flowers and leaves of the orange tree powdered have had their advocates in the treatment of similar painful diseases.

The small experience which I have of issues leads me to place no faith in them. I have seen them used in obstinate cases, but only to add additional distress to unrelieved pain.

Where the pain commences in the sacrum, with dull gnawing pain in the loins, the greatest relief from it is often obtained by wearing a bandage next the body lined with oiled silk. I have seen the best effects from this simple remedy.

In all cases of broken health, whether worn down by preceding illness or gay life, or the result of the long continued pain in this disease, the use of quina, in pretty large doses, is necessary, either combined with a sedative, such as conium, or with a sedative and colchicum at night. In cases of painful affection, under a

similar state of constitution of the facial nerve, it is well known that the sesquicarbonate of iron is a very powerful remedy. But in sciatica I cannot doubt that quina is preferable to restore the strength. It may be given in pills, with Pil. Galbani Comp. and Extract. Conii—a form from which I have seen the best effects—or alone, with a little Sulphuric Acid, and Tincture of Orange Peel and Tincture of Ginger.

To this should be added the use of the warm air-bath—produced by covering the patient with a wicker cradle, and over this, blankets, burning at the feet a spirit-lamp, the chimney of the stove entering beneath the coverings. At first this ought not to be used longer than a quarter of an hour, for its effect in producing perspiration is prodigious. When continued for more than half an hour, I have seen at the hospital the perspiration pass through the mattress. Such a process is very weakening, and therefore should be used carefully, and increased by degrees. When the lamp is put out, the patient should remain at least for an hour in his blankets, which are then to be changed for warm dry linen.

I have seen the greatest advantage, and never any injury, from this practice properly employed.

The application of cold, especially in the form of ice, in cases of sciatica, has been much contested. It has often been found of much advantage, but often also it appears to have failed. The same may be said of cold bathing. No case has occurred, in my own experience, of benefit from this remedy, but I have read of great relief derived from such treatment.

Here, again, the particular remote causes of this disease must be known, whether it arises from a general over excitability of the system, or from stomach diseases, or from other local causes. It is impossible to judge of the real advantage of such remedies without having a just appreciation of the apparent causes and real state of the constitution of the patient.

Iodine and its salts have been also greatly recommended, both externally and internally, in the cure of sciatica. This medicine, which is employed in very large doses in this country, and likewise by our more cautious neighbours, the French, is often found to affect the nervous system in a remarkable manner. Those who remember the effects of this medicine when taken incautiously at Geneva in 1819, will have no doubt of its deleterious effects on the human body when improperly employed. It is, however, taken in considerable doses without any apparent bad effect. This, in my opinion, arises from two causes, the preparation being often much adulterated, and the peculiar circumstances of its passing away in many persons very rapidly by urine.

The well-known effects of this medicine in secondary symptoms would induce its employment where the sciatica appears to arise from a syphilitic taint, but in cases where this painful affection arises as symptomatic of an over excited state of the nervous system I feel certain it is injurious. In one case, undoubtedly, the employment of it was followed by great increase in the severity of the pain.

Some years ago, I heard of a gentleman who for

secondary symptoms took forty grains, twice in the day, of the then named hydriodate of potass. Remembering the frightful effects which I had seen from half the quantity, I begged the medical friend who told me of it to examine the urine. A very short time (two hours) after the medicine was taken, more than two thirds could be detected in the urine. In other persons less is passed by urine, and a larger quantity is assimilated.

Lugol assures us that very powerful effects are produced by half a grain of iodine and three grains of the iodide of potassium, taken regularly for two or three days, in what he calls his third solution.

The effects of oil of turpentine have also been used, both externally and internally, in the case of sciatica.

Externally it is simply a rubefacient, but often relieves the extreme pain as a counter-irritant. Internally the oil of turpentine is of remarkable advantage in some states of irritation—in all cases of the abdominal irritation arising from worms, inhabiting the intestinal canal. More particularly, however, it is useful internally in those morbid states of the secretions of the intestinal canal which are accompanied by much flatulence. In epilepsy, and in diseases of the brain of a chronic nature, one of the most distressing symptoms is flatulence; so much so, that it passes from the mouth, as from the rectum, with noise. Occasionally this is a very marked symptom; and tympanitis is sometimes the most marked symptom of the last stage of disease of the brain.

In these cases, by the use of oil of turpentine in injection, both the flatulence is relieved and the pain in the limb greatly diminished.

I have seen occasionally cases where for a time the whole distressing pain disappeared from an enema of Ol. Terebinth. Ol. Ricini, aa. ʒss., in any vehicle, such as Aqua Aneth., or Aqua Menth. Piper.

Even internally a drachm given in the morning, rubbed up with yolk of an egg, and diffused in aromatic water, has been found effectual in curing sciatica.

I cannot doubt that the latter cases, in which this remedy was successful, must have been connected with long-continued disorder in the large intestines—another reason for searching accurately for the cause of this most painful disease before beginning to treat it.

I must not omit here the employment of a ligature, or pressure with the tourniquet, for several hours, on successive days. It has proved of great use in intermittent cases, where the intervals between the paroxysms were long. This practice has also been known to arrest the aura epileptica, in severe cases of that terrible disease.

But of all the sedatives known to our art, opium, when it does not from some peculiarity of system derange, is the most powerful.

It is well known that during the acute pain arising from the passage of gall-stones, or the similarly acute pain of a calculus passing down the ureter on either side, a great quantity of this medicine may be given without the smallest danger, the relief of pain shewing the period for leaving it off.

I have seen in a paroxysm of gall-stones 300 drops of laudanum given in two hours, without any effect except the relief of pain. The patient drove and dined out on the next day, without suffering from headache, nausea, or any of the bad effects from this drug which would have occurred under other circumstances.

The offending biliary concretion was passed about a week afterwards.

But in sciatica, during the extreme violence of the worst paroxysm, without the assistance of opium the patient's life would be in danger from exhaustion of his strength. A case of this kind occurred in my practice not long since.

I was requested to meet Mr. Cross, of Leicester Square, on the case of a young gentleman, aged about twenty-five, of a very excitable nervous system, in November, 1846. The case was as follows :—

The patient, in the preceding summer, five months before his illness, had a fall from his horse, and fell on his right side ; for some time he was lame from the effect of his fall, and walked with lameness. On his return home his lameness must have been very slight, as it was not remarked by any of his friends, nor indeed mentioned by himself until the disease of which I am to speak had existed several weeks.

Lying down imprudently on the grass after a shower of rain in October, he was attacked by swelling of the ankle, knee, and hip of the right side ; in fact, rheumatism. For this he was treated according to the best rules of art ; leeches were applied to the principal pain

and swelling of the hip ; among other remedies, calomel and opium was given regularly, and the swelling of the knee, wrist, and ankle disappeared, but the pain remained in the hip, and in a most acute degree in the course of the sciatic nerve ; he not only dared not move the limb, but he dared not try to move. Such was the extreme agony in these parts, that a person walking across the room, or even speaking loud, brought on torture. On the other hand, the patient insisted on a strong light being constantly in the room at night. He had suffered thus during a fortnight. At this period of the disease I first saw him.

He was very thin, highly excitable, any motion or emotion of any kind bringing on torture, so that his screams might be heard at a distance.

The practice with calomel and opium could not be carried further on account of affecting the mouth. The pulse never, even under the acutest paroxysm, reached 80. There was never fever, heat of skin, or dryness of the tongue.

He was ordered to take one grain of the acetate of morphia with orange-flower water in almond milk, and half a grain of extract. belladonnæ, every three hours during the paroxysm. But as Mr. Cross was with him part of every night often many hours,* it was left to him to increase the dose of the medicine to procure ease to the patient. Generally about midnight, sometimes before, the paroxysm began by violent trembling

* Indeed the patient (so severe was the case) owed his life to this unremitting attention.

in the limb, starting of the tendons, and this increased until the violent movement rendered it impossible to keep the limb steady even by force, at least such force as could be reasonably applied.

This went on, accompanied by the screams of the patient, until from six to eight o'clock, when he sunk into a sleep of exhaustion: the sleep usually lasted about two hours. On awaking, the pulse was as usual quiet, the tongue clean, and though the bowels were slightly constipated after large doses of the medicine, when acted on by a moderate purgative the dejections were as to colour and consistence those of a person in perfect health.

The dose of the acetate of morphia was obliged to be carried up to six grains during the paroxysm before any advantage was obtained; then the paroxysms became shorter, did not begin until two or three o'clock in the morning, and usually did not last above three hours.

I must not here state that the patient was free during the day from pain. Several times the pain returned for a few minutes, or a quarter of an hour, but during the night it was incessant.

In the day time four grains of sulphate of quina were given twice or thrice; indeed as often as the patient could be prevailed on to take it.

At first he would take little or no food, but by persuasion he was induced to live better with the greatest good effect. The functions of the kidneys were never affected throughout the course of the disease.

At this time, when the paroxysms of pain were beginning to be less frequent, the natural anxiety of friends required a consultation, and a question arose as to the extent of the disease of the hip-joint.

Mr. Cæsar Hawkins attended, and subsequently Mr. Liston on two or three occasions met him.

Leeches were again applied to the joint, and evaporating lotions, and also ice applied, the other treatment remaining the same; and with extreme difficulty, from alarm at being moved, the patient was placed on one of Mr. Earle's beds.

From this time the recovery though slow was progressive; but when nearly free from pain on the right side, pain occurred in a less degree in the left hip.

Several months have elapsed since the patient was able to leave off his opiate altogether, and many more since any pain has been felt. He now walks with only the assistance of a stick.

I must repeat, that no feverish symptoms occurred during any part of his disease.

CASE II.—I was requested in August last to meet Dr. Cape in consultation on the case of a lady two days after her confinement. This lady had previously to her pregnancy been attacked by severe pain in the sacrum and right sciatic nerve, attributed to sitting on an iron bench in the garden while it was still wet.

The pain was most excruciating, especially at night,

and greatly increased by resting on the right tuberosity of the ischium.

The patient had had recourse to warm baths at Brighton, to the baths and waters of Wiesbaden; to the application of almost every considerable remedy, or what is said *to be good for sciatica*, without more than very slight temporary relief.

During delivery the pain was not increased by the head of the child passing through the pelvis; a pretty strong proof that no organic mischief existed.

On the third day after delivery the pain became excessive. I could not go at the first summons, but begged that the draught* which I find to be most useful might be taken, and I visited her with Dr. Cape about two hours afterwards.

The relief had been very great; the draught was directed to be continued at bed-time.

At the expiration of the month the patient took two of these draughts every night, one on going to bed, and one when the pain became severe, about two o'clock in the morning, and continued this for several months, without any apparent effect except continued relief from the pain.

In the month of November the patient went to Bath and drank the waters, and used the douche with advan-

* R Solut. Acet. Morphiae, ℥xl. (gr. i.)

Aquæ Florum Aurantii, ʒj.

Aquæ Fontanæ, ʒx.

Syrupi Aurantii, ʒj. M.

Ft. haustus statim sumendus.

tage, never, however, leaving off the sedative. During the whole of this period she suckled her child, and the infant never had one day's illness.

The improvement of the patient is wonderful; the pains are so much diminished as to enable her to move about, and up and down stairs, without even the assistance of a stick, and on weaning the child the pains are so materially relieved that the opiate is gradually being left off.

There has never been, throughout this most severe case, any fever, quickness of pulse, or heat of skin, or any disorder of the animal functions.

Both these cases are examples of sciatica from great excitability of the nervous system. In the first there was a great general predisposition to increase of the sensibility and irritability of the nervous system; among other proofs, a near relation has laboured for years under *tic douloureux*.

In such a state of constitution, the fall, and application of cold to parts weakened by the fall, produced the dreadful disease which I have related, but which I feel would not have been the case had the extreme sensibility of the brain and nerves been less. The constitution predisposed, accident determined the particular form of disease.

In the second example the same in some degree holds good.

A general tendency to easily increased sensibility of the nervous system is called into action by particular circumstances. The part especially affected is determined by accident; but the severity and long continuance of

the pain has reference to peculiar constitutions. The same quantity of injury may be applied to the bodies of different individuals, but the manner in which the pain is perceived will, perhaps, be different in all; certainly the pain will be slight in one while it is unendurable in another.

Hence, therefore, in investigating cases of sciatica, great attention should be paid to ascertain, as far as possible, the susceptibility to external impressions of the patient, independent of the symptoms of the disease with which he is actually attacked.

I now come to speak of this painful affection, as symptomatic of disease in the brain.

It requires long observation and experience to be able to speak of this most distressing form of disease, as it is rarely seen in hospitals, from the length of time which often intervenes between the first attack and the fatal event.

Some years ago I was summoned to see a lady of florid complexion, stout, and about forty-six years of age. She complained of sciatica very severely affecting the right thigh. She had in Paris had iodine baths, and taken iodine largely. In addition to the acute pain in the thigh there were two encysted tumors on the scalp, which at that time gave no pain. Purgatives, followed by small doses of colchicum, and a lotion with laudanum to the part, seemed to relieve, and she went to the sea-side, and used the tepid hip-bath, with little benefit. On her return she could with the greatest difficulty be lifted from the carriage, not

from want of the power, but from a fear of motion bringing on the excruciating pain.

The pain, always severe in the right leg, occasionally affected the left; and in spite of all the remedies, the nights were spent in indescribable torture. At this time the legs began to swell, and each paroxysm of pain was accompanied by a hard swelling like a node. When this subsided, which it did after a few days, a bruise occupied its place. These nodes or swellings appeared most frequently on the thighs or legs, but as the disease advanced were formed in the pectoral muscle, and sometimes in the serratus major, accompanied by intense pain, and subsiding after a day or two.

At this time I had the advantage of the assistance of Sir Benjamin Brodie and Dr. Chambers.

The patient could not use her legs, not from palsy, for when strongly urged she could lift her legs and walk, but from the excruciating pain in the nerve of both thighs; even to this, however, there were intervals of entire ease.

During the whole of these attacks the pulse never exceeded 80, nor was there at any time heat of skin, thirst, or loaded tongue.

Great hopes were entertained from long continued doses of sarsaparilla, so useful in some cases of soft nodes, which occur in both sexes at an advanced period of life without any syphilitic taint.

Four months had now elapsed. Each new remedy, each new sedative, appeared to give momentary relief: a fresh symptom appeared—vomiting. At first the

patient, from perhaps some feeling of uneasiness, provoked vomiting, at other times food was rejected as soon as swallowed with the least possible effort; nor was this always, it occurred only occasionally. But I note it, because I have seen it since to be a constant symptom in similar cases, as the disease advances. When the disease had continued nearly six months a slight epileptic seizure took place; this recurred with greater or less frequency, the fit never exceeding in duration twenty minutes.

The occurrence of the epilepsy did not suspend the pains in the limbs, especially in the course of the sciatic nerve. The attacks became more frequent, and after an illness of more than eight months the patient died with symptoms of effusion into the brain.

In the next case, the pain was not in the sciatic, but in the brachial nerve.

The patient was a gentleman who had passed a life of labour, bodily and mentally, with the greatest activity of mind, and reached, after uninterrupted health, the age of seventy-eight.

The pain in the left ulnar nerve extended to the biceps muscle, and was intense; the very weight of the bed-clothes was intolerable; a person walking across the room produced an agony as much of fear as of real pain.

In this case the great and only relief was from the draught of morphia previously mentioned. Half an hour after taking it all pain would cease, and the spirits and mental powers of the afflicted patient rise proportionally. Occasionally, when the pain was severe,

slight cramp arose in the biceps muscle, and at times the little finger of the left hand was drawn up spasmodically.

Here, again, was observed the symptom mentioned in the former case; vomiting after taking any solid food, either provoked voluntarily, or occurring with very little effort. As the disease advanced this symptom became more frequent; but there was no pain in the head, no paralysis in any part of the body. A few days before death the vomiting became very frequent, and the left eye was observed to be shrunk and injected in a remarkable manner.

At no time was there any fever, or any heat of skin, or any symptoms which accompany inflammatory disease, and in the absence of pain the mind was always cheerful and disposed to be happy. The patient was ill about five months.

I have seen three cases nearly exactly similar, all occurring in persons with a strong predisposition to what is called nervous disease, that is, of great excitability, and in whom pleasure was more enjoyed and pain more acutely felt than in ordinary people.

It may be said that the use of sedatives, though of necessity, might produce both the sickness and the head symptoms; but in the first instance sedatives had been given up long before the epileptic seizures took place; and in the second, attacks of every sort appeared to be averted as long as the sedative produced its usual effect. In another of the cases alluded to sedatives had been given up, and the patient free from pain, fully a month before a seizure took place, while in

other cases the patients recovered without any similar symptoms occurring at all.

But if to an individual in private practice five cases of sciatica have presented themselves, the pain in the nerve being the first symptom of disease slowly going on in the brain, it is clear such cases are more common than would be imagined, and must both cause more alarm on the part of the physician, and influence his prognosis, oftener than is usually believed in cases first simply shewing themselves as painful affections of a nerve.

END OF VOL. I.



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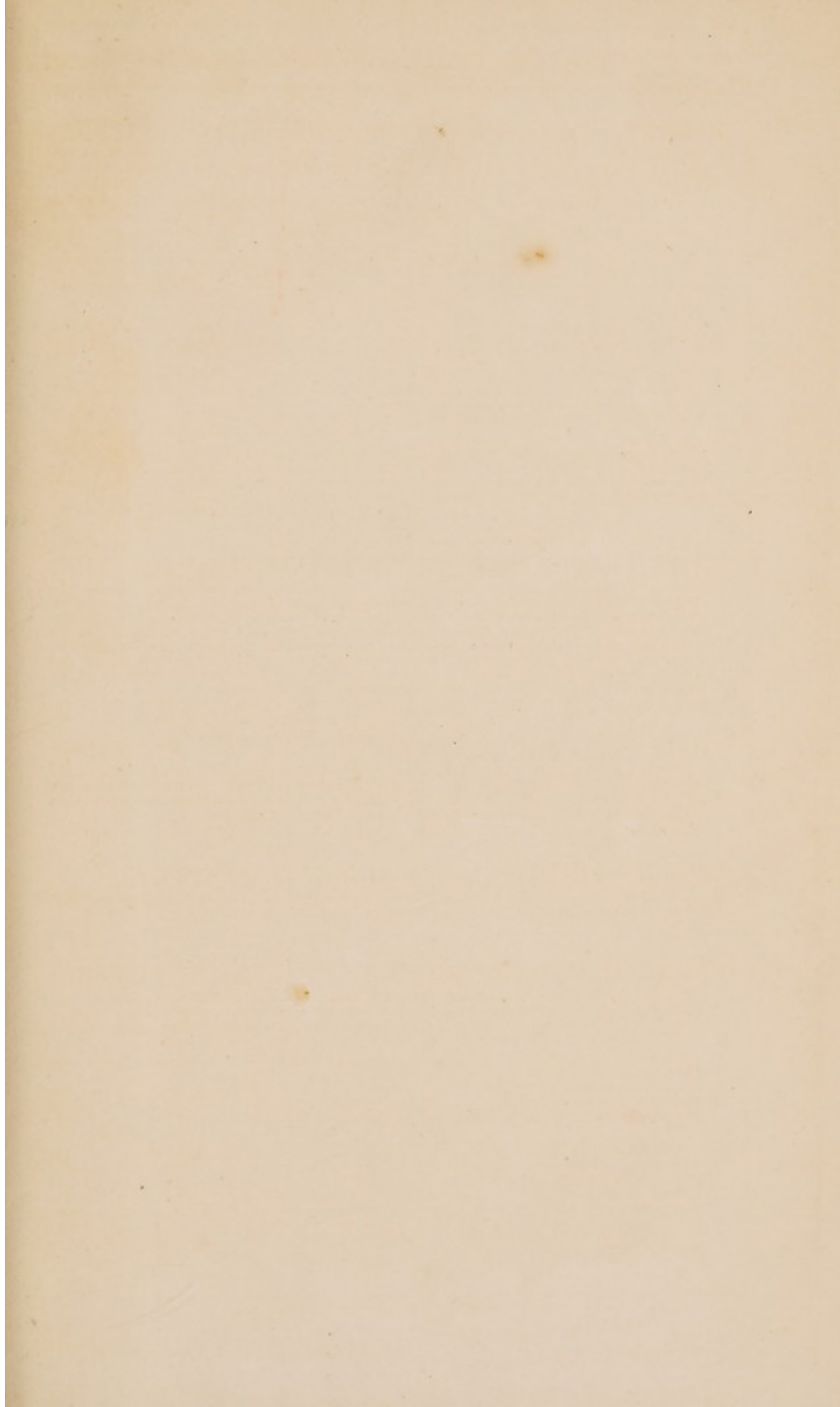
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