

Practical researches on the nature, cure, and prevention of gout, in all its open and concealed forms : partly translated and condensed from the French of Guilbert and Hallé : with a critical examination of some celebrated remedies and modes of treatment employed in the disease / by James Johnson, esq.

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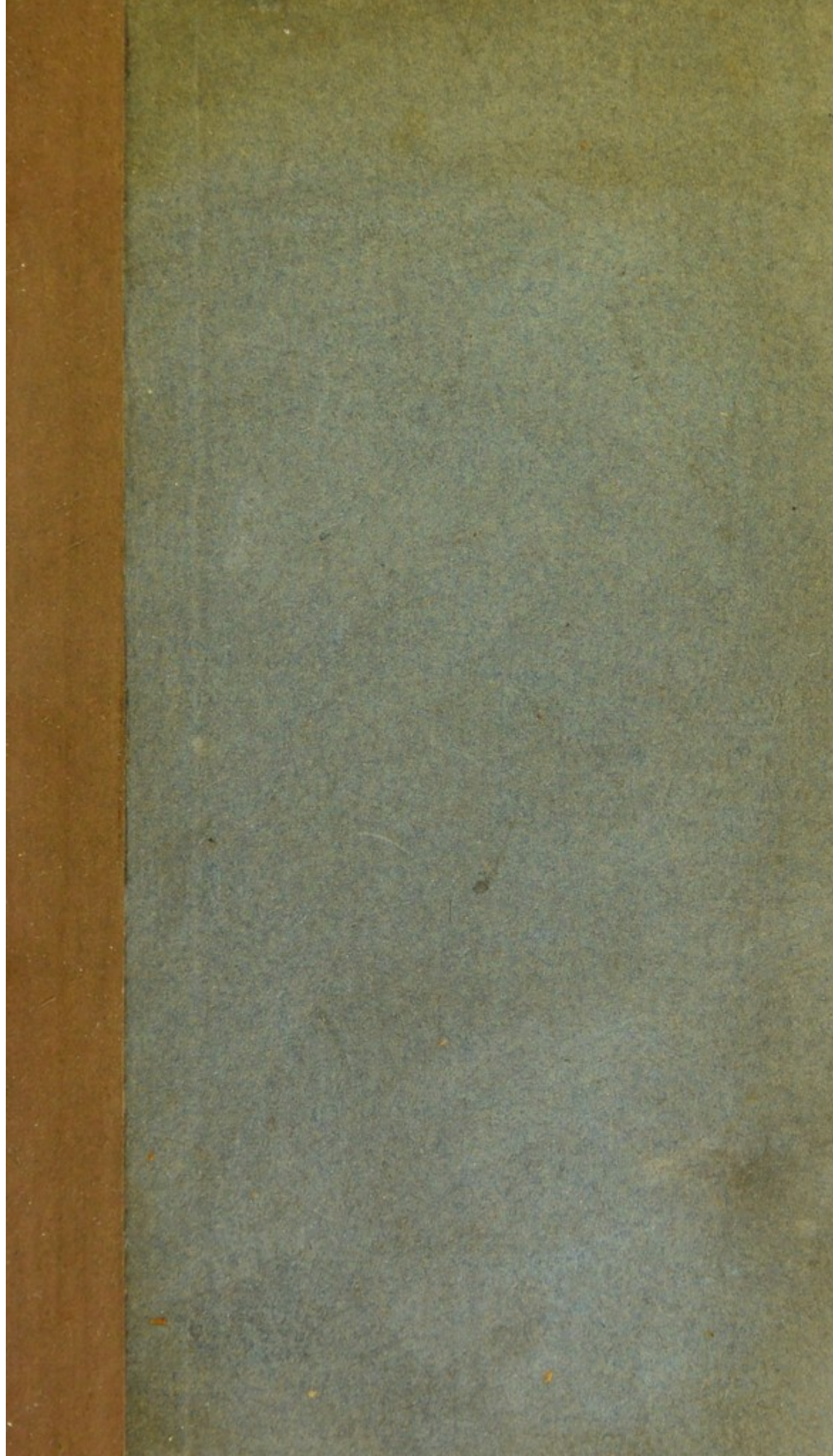
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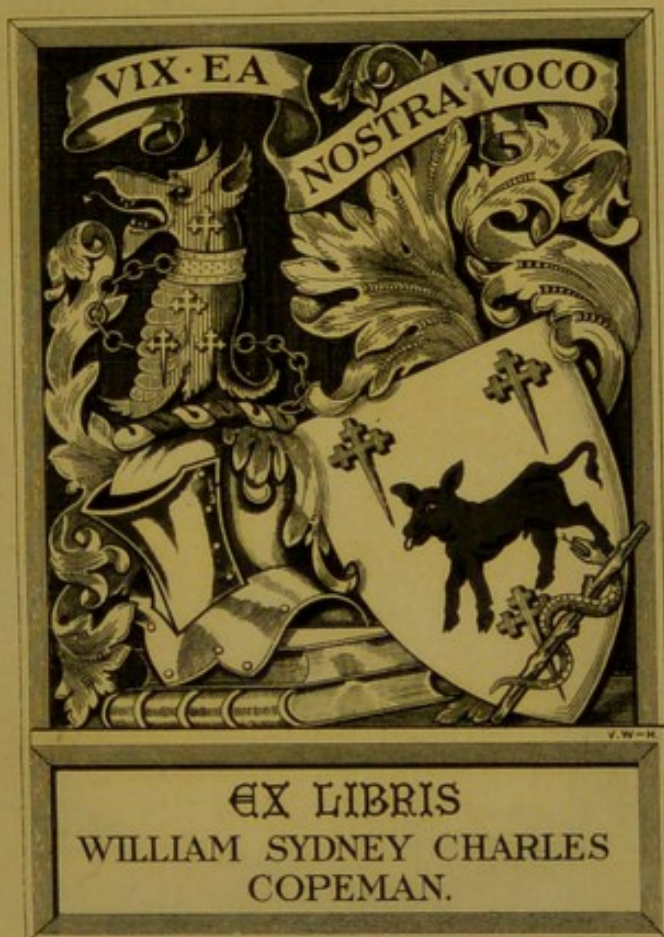
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PRACTICAL RESEARCHES
ON THE
NATURE,
CURE, AND PREVENTION
OF
GOUT,

IN
ALL ITS OPEN AND CONCEALED FORMS;
PARTLY TRANSLATED AND CONDENSED FROM THE FRENCH
OF GUILBERT AND HALLÉ;
WITH
A Critical Examination
OF
SOME CELEBRATED REMEDIES AND MODES OF TREATMENT
EMPLOYED IN THIS DISEASE.

BY JAMES JOHNSON, ESQ.
SURGEON TO HIS ROYAL HIGHNESS THE DUKE OF CLARENCE;
Author of the "Influence of the Atmosphere on the Health and Functions of the Human
Frame;" of the "Influence of Civic Life, Sedentary Habits, and Intellectual
Refinement, on Human Health and Human Happiness;" and Editor of
"The Medico-chirurgical Journal."

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1819.

PHYSICAL MEDICINE

OF THE

HEALTH

CURATIVE AND PREVENTIVE

OF THE

DISORDERS OF THE

RESPIRATORY SYSTEM

AND OF THE

THORACIC VESSELS

AND OF THE

PERICARDIUM

AND OF THE

PERITONEUM

AND OF THE

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AND OF THE

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AND OF THE

PERICARDIUM

J. Gillet, Printer, Crown Court, Fleet Street.

PREFACE.

AMONG the offspring of civilization and wealth, GOUT holds a distinguished station. TEMPERANCE, indeed, had long ago declared that she would visit the sins of the father upon the children to the third and fourth generation of those who despised her precepts: but LUXURY smiled at this denunciation; conscious that man would, in every age, snatch at *present* enjoyment, whatever might be the chance of future suffering! The malediction of Temperance is now visible wherever we turn our eyes; for we every where see Gout transmitted from parent to progeny, as regularly as any other species of property;—often, much more so! Thus, as Shakspeare has said of “honours”—“some acquire” Gout, and “some have,” Gout “thrust upon them.” But in whatever way it comes—even with

“The boast of heraldry, or pomp of power,”

It is an unwelcome guest; and both artifice and *force* are daily employed by thousands to dislodge the intrusive visitor. It is almost *hopeless*, and

it is too often considered *absurd*, to persuade a man, when labouring under pain, that he ought not to free himself of that pain as quickly as possible. Yet the records of medicine, and every day's experience, offer innumerable proofs that many *apparent* diseases, and especially Gout, are *salutary* efforts of the constitution to waste, as it were, an irritation, or inflammation, on an extreme part of the human frame, which would otherwise prey on an internal organ. Indeed, a very considerable proportion of what are termed diseases, are, upon the whole, *sanative* struggles of the constitution to ward off worse calamities. The best physicians, in every age, were those who, attentively watching the operations of nature, restrained them when *inordinate*, stimulated them when *torpid*, and confined them when sallying from the safe and medium course. On the contrary, the unprincipled charlatan, and sometimes—to our shame be it spoken, the regular practitioner, have held out delusive hopes, and actually prescribed deleterious medicines, with a view of affording present ease, at the risk of subsequent misery!

For the honour of human nature, however, I am inclined to believe that this nefarious proceeding is more generally the effect of ignorance, than wickedness. But as the evil consequences are, in either case, the same to the patient, it appears an extremely desirable object to lay before the

public at large, a short, yet comprehensive view—not of what one man, or one nation, has said or thought of the nature, cure, and prevention of Gout, but what the wisest, the most learned, and the most experienced physicians, of every age and country, have *agreed upon* respecting the above-mentioned circumstances. If there can be a species of evidence, above all others the most convincing, on any particular point, it is a well digested evidence of this kind.

In presenting to the public the following little work, for which I am greatly indebted to the researches of two eminent foreign physicians, M. Guilbert and Hallé, I am quite confident that I do a service to my brethren and the community at large.

A most erroneous and fatal idea is gone abroad, and is countenanced by some of the profession, who *ought* to know better, that a fit of constitutional gout may, in a few hours, be expelled the system, by certain specifics; as, for instance, the *Eau Medicinale*; or a late refinement on that remedy, the *Colchicum Wine*. Now that this last medicine has often the power or property of checking at once the gouty paroxysm, or *external form* of the disease, I admit; but that it lessens the sum total of gouty action in the *system*, I deny most firmly. On the contrary, in almost every instance, where these “safe, easy, and sud-

den *cures*," as they are called, have been effected, by whatever means, the gouty irritation has preyed, first *silently*, and, after a time, *openly*, upon the function or structure of some internal organ—generally the stomach, liver, or brain; very often the heart itself. Let it be remembered that in the human fabric there are three great classes of parts—the voluntary, muscular, or *animal* system; the involuntary, or organic system; and the intellectual, or nervous system. The *open* forms of gout are generally seated in the *first order* of parts, which are *naturally sensible*, and, consequently, these forms are painful. The concealed forms of gout generally attack the organic system, (heart, liver, digestive organs, &c.), which is *naturally insensible* in health, and until disease has gone a certain length. It is easy to see, that when we hastily dislodge gout from the animal system, or set of parts, it may be proceeding in establishing itself on some of the organs internally, for a considerable time, without giving pain or alarm; as a miner advances to the walls of a fortress before he gives any external indication of his mischievous operations. It is this deceitful and treacherous interval of ease and *apparent* safety, which has given an ill-deserved reputation to certain specific remedies; but, sooner or later, the storm bursts over the head of the hapless victim of quackery and ignorance, and he finds,

when it is too late, that he has a heavy penalty to pay for this temporary immunity from his constitutional malady!

To lay before the patient and the practitioner a fair, a candid, and an honest statement of what can, and what *cannot* be done by a regular and scientific application of remedies, in this painful disease, is the object of the following pages. If they hold forth no magnificent promises of *sudden* cures, or easy *near-cuts* to health, they point out the slow, but the safe and rational road to this desirable haven.

They are, therefore, committed to the protection of the public without further comment. Books, like men, usually find their proper level on the scale of general estimation, from whatever point of this scale they first move. There is something in merit, which the weight of Atlas cannot keep down—in demerit, which the fulcrum of Archimedes cannot raise.

JAMES JOHNSON.

No. 1, Albany Court Yard, Piccadilly.

September 10th, 1818.

when it is too late, that he has a heavy weight
to carry for this community, and that the
situation is not a happy one.
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WALTER JOHNSON

10, 11, Albany Street, London, W.
September 10th, 1911.

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PRACTICAL RESEARCHES

ON

GOUT.

THE following essay on Gout is branched into two grand divisions, the first being on the nature, the second on the cure of this formidable disease. We shall throw the whole into sections, to give greater facility of reference.

§ 1.—*Regular or Acute Gout of the Joints.* Sydenham, the ENGLISH HIPPOCRATES, has given so exact a description of the paroxysm of regular gout, that all succeeding authors have only copied him. The principal characters may be summed up in the following words. A sudden invasion during sleep, commencing with a sense of chilliness and shivering—then local pain (generally in the great toe) with symptomatic fever, increasing and diminishing with the pain. Towards the end of 24 hours, a solution of the paroxysm, with the formation of a slight swelling, accompanied by heat and redness of the part affected. Every evening during the period of the gouty attack, (generally a fortnight) there is an exasperation resembling the first paroxysm.

A few words on the pain, fever, and swelling. The *pain* has no determined character; but is rather remarkable for a cruel variety! a sensation of tension, tearing, constrict-

tion, compression—sometimes like a wedge between the ends of the bones—sometimes like the gnawing of an animal—sometimes like a fire.

Minute observation has often detected, in first and regular attacks especially, a *fever* of weekly period, and three day type. According to Plenciz, it readily assumes the character of the reigning epidemic. Stholl has remarked a partial crisis terminate each gouty febrile paroxysm, manifested by a moisture on the skin, deposition in the urine, or increased secretion into the stomach or bowels.—The erysipelatous swelling is also considered in the same light.

The *swelling* itself, produced by a paroxysm of gout, terminates by a local perspiration, and scaling of the cuticle—the former having often a peculiar odour, and the property of blackening silver.

The attack over, the patient speedily recovers a more than former degree of health, that promises a long, if not a permanent immunity from similar visitations.

Although we generally see gout make its debüt on the feet; yet it occasionally commences in the wrists, hands, and knees. Sometimes also, instead of coming like a thief in the night, it attacks in open day—and then for the most part, at the moment of some unusual mental or corporeal exertion. Van Swieten saw a robust man so stricken with gout in descending from his coach, that he thought he had dislocated his ankle. M. Guilbert knew a gentleman who, during a retreat in the presence of an enemy, and while animated with all the emotions which such a situation naturally inspires, was so violently assailed by gout, on the middle of a bridge which he was rapidly crossing that his life was preserved only by the humanity of his comrades, who carried him over on their shoulders.

But gout makes its approaches sometimes in the most insidious manner. Desault knew a magistrate who every year, towards the end of winter, experienced attacks of gout, but so slight and irregular, that, for a long time, he would not acknowledge the name of the disease. One year it was the shoemaker's fault, who made his shoes too small; another, he sprained his foot, or made a faux-pas, &c. At length, however, the enemy unmasked himself, and left no doubt as to his true nature.

The ancients were still more loath to acknowledge gout than we are. Among us, it is often the consequence of a sedentary life dedicated to honourable and useful studies. In the older time, such causes were rare; since literary investigations were carried on in the open air, in the peripatetic manner. The polished letters of Pliny were composed amid the amusement of fishing and hunting! to the shame then of the Athenian and Roman Arthritics, we are compelled to say, that their gouty attacks were, in general, owing to intemperance in eating and drinking—hence their aversion to a gouty character.

Finally, regular gout ordinarily confines its first invasions to certain joints, particularly those of the feet; but as time rolls on, the sphere of its action is progressively increased, till the patient, at length, appears affected with one universal gout!

§ 2.—*Chronic Gout.* This, like acute gout, is composed of accessions and paroxysms, but of longer duration and less definite character. The different stadia, the increase, the height, and the decline of the disease, are disproportioned and confused. In *acute* gout we see one joint suffering in some degree of ratio with another; but here we shall frequently observe a joint merely traversed, as it were, by the disease, while its fellow, of the other

extremity, is long and cruelly tormented. The chronic species is also more prone to attack internal organs, more apt to transport itself from point to point there, and that from more trifling causes, than the acute gout; hence the epithet *irregular* has been justly applied to it.

This species will last for months—perhaps the whole year, with the exception of a short period in the Summer, wandering from joint to joint. Here the stomach derangements are more marked and obstinate. The appetite fails; the digestion is difficult; the urine is neither of a deep enough colour, small enough quantity, or sufficiently sedimentous. On the contrary, it is very copious, and of a diabetic hue. The patient is annoyed with piles, itchings in various parts, lassitude, cramps, and a thousand other internal morbid sensations. Meantime he becomes a prey to choler, timidity, chagrin, and other melancholy emotions. There are some remarkable exceptions, however, to this rule. The great Condé was never more amiably brilliant in company, or eloquent in conversation, than when labouring under a paroxysm of the disease; and it was said of Charles the Fifth, that he rode between gout and victory, on the same triumphal car.

The local sequelæ, or stiffness and other consequences of chronic gout, are very distressing. The swelling, though less prominent than in the acute species, and sometimes even colourless, disperses slowly, and remains long stiff and painful. It is sometimes imprudent to jest with the gouty patient. The Emperor Severus, who was lame with this disease, put some of the court wits to death for their raillery! “Let my subjects learn,” says he, “that it is with my *head* and not with my *feet* that I govern them.”

The local effects may be reduced to five classes. First; the gouty *œdema*, or pitty swelling occupying a consider

able space, without redness, and possessing but a feeble elasticity, complicated with common œdema. It is most frequently met with in old people, and lymphatic temperaments. Second; **CONTRACTION**, or rigidity of the muscles, tendons, and ligaments of those parts which had long been the seat of gouty irritation. Third; **LIGAMENTOUS SWELLINGS**. These are partial thickenings of the ligaments and tendons, at first soft and painful, but ultimately becoming indurated, and productive of stiffness in the motions of the joints. In fact, the natural movements and actions of the parts affected, are changed by these derangements. The nodosities form new pulleys and attachments for the tendons, in consequence of which, the whole mechanism of the joint is altered, and all its motions embarrassed or distorted. Fourth; **STIFF-JOINT**. This may result from the preceding species, or simply from long-continued immobility of the limb; and consequent induration of the surrounding investments. Sometimes it seems owing to the effects of repeated inflammation in the membranes of the joints, whereby they become glued together. At others, the extremities of the bones themselves would appear to be the seat of disease, whether of caries, softenings, or effusions of superabundant bony matter. But the most frequent cause of stiff-joint is—Fifth; **GOUTY CONCRETIONS**. These are formed of a substance resembling, in appearance, plaster of Paris, or chalk, and which had originally been in a fluid or gelatinous state. They are not irritant in their own nature, but mechanically so, by their size, shape, or situation, as foreign bodies. By occasioning almost constant pain and irritation, they finally induce an *habitual* state of gout which has been thence denominated *fixed gout*, of which more hereafter.

§ 3.—*Fixed Gout in the Joints.* This is the ordinary consequence of chronic gout. Its character depends on those nodosities or concretions already alluded to. Mr. James Moore has given a good description of these in the 1st vol. of the Med. Chirurgical Transactions. The swelling which gives birth to these concretions does not differ from the ordinary swelling of gout at the beginning; but after some time, it communicates to the hand the sensation of fluctuation. A portion of this fluid being absorbed, the remainder gradually thickens, and at length becomes hard and friable. During each gouty attack, and sometimes even in the intervals, a fresh effusion takes place, and thus tumours are formed, which have been seen of all sizes from that of a pea to an egg. These tumours are not bounded by a cyst, but diffused through the cells of the cellular membrane, or even into the cavities of the joints themselves. Sometimes they approach the surface, and are thrown out.

Violent attacks of gouty inflammation now frequently burst upon the parts thus mechanically irritated, and fresh effusions are added to the original depot, till enormous tumours are produced. These swellings are encircled by a large purple ring threatening mortification, and accompanied by intolerable pain. Finally, the skin gives way, and a profuse watery discharge ensues, leaving the concretions at bottom. These last come away piecemeal; sometimes requiring years for their expulsion from foul and irritable ulcers. Fortunately these openings into the cavity of a joint are far from being so dangerous as those resulting from wounds in the healthy state of the parts.

§ 4.—*Primitive Fixed Gout.* This species is but little known, and has been imperfectly described, if we except the account of Hallé and Nysten. It shews itself in pre-

ference, among individuals of a phlegmatic temperament, and particularly in females of this constitution, at the turn of life. The swellings are nearly painless, even during sudden atmospherical transitions; the patient only experiencing a kind of shooting sensation, when bending or extending the joint. They have not the erysipelatous appearance, nor the degree of resistance to the finger, observable in other species of gout. They are pale and somewhat soft. They principally attack the knee, and the joints of the superior extremity. After a considerable sojourn in the joints, it finally becomes wandering, or at least complicated with organic derangements of the viscera. It was this species that harassed the last years of Daubenton, the celebrated naturalist, whose hands were so deformed as to resemble, according to the expression of Perseus—*the branches of an old beech tree!* It has been vaguely described by authors under various titles.

§ 5.—*Conversions of other diseases into Gout. Gout critical.*—Under this title some remarkable facts are ranged. Thus Van Swieten relates the case of a man affected with Pleurisy, who, on the fourth day of the disease, and after copious blood-letting, &c. had been tried in vain, was suddenly seized with acute gout in both feet, when the pain of side and fever immediately disappeared, and returned no more. This man never experienced gout before or afterwards.

Morgagni was himself affected with violent inflammation in both eyes, which resisted every remedy, till happening to bathe his feet in hot water, gout seized the right great toe, and instantly the inflammation of the eyes gave way.

Long mentions a case of mental alienation, (which succeeded, it is true, a translation of gout, but which con-

tinued uniform for ten years) that entirely disappeared on the accession of a violent fit of gout in the feet. The patient never experienced gout afterwards. Lanzoni states the case of a female, subject, during twenty-five years, to Epilepsy, but who was delivered from this disease by an attack of gout in the lower extremity.

But it is to various nervous affections that gout has frequently been observed to prove critical—especially Hypochondriasis and Melancholy. Melancholy and gout are seldom present together; a reflection that may console the victims of both diseases.

§ 6.—*Gout by translation.* Obstinate diseases of the skin have been frequently known to transform themselves, all at once, into gout of the extremities equally obstinate. Bang saw it follow herpes, and the healing of ulcers and issues. In this order of phenomena, Barthez, perhaps with justice, ranges the Phlegmasia dolens of lying-in women, so closely imitating gout, and of which Musgrave has related four remarkable examples.

§ 7.—*Gout, by the extension of another disease.* Certain chronic diseases extend, as it were, to the joints, and there imitate gout, but without any alleviation of the original complaint. "It is not uncommon," says Hallé, "to see painful chronic affections of various organs assume the character of wandering gout, producing on the joints of the extremities, redness, swelling, and even nodosity, with a momentary but fallacious solace of the internal evil. In applying the usual remedies for gouty affections to these local determinations, the practitioner will invariably find himself baffled."

§ 8.—*Enquiries relative to the seat of Gout.* Various opinions have divided the medical world on this point. Morbid Anatomy, however, has now decided the question.

The *fibrous tissue* is unquestionably the more usual, but by no means the exclusive theatre of gouty action; since every tissue and structure which enter into the composition of joints have been, in their turn, disorganized by the gouty process.

§ 9.—Another question has been agitated. *Is gout of an inflammatory or nervous nature?*—Pinel, in the first Edition of his Nosography, ranged it in the latter, but has since transferred it to the former class. Notwithstanding that gout is characterized by extreme *mobility*, and that its morbid action can be transported, in the twinkling of an eye, from one joint to another, or from thence to an internal organ; yet the more closely we examine into the phenomena of the disease, and its morbid anatomy, the more evident will be its inflammatory nature. The following remarkable illustration of this observation was obligingly communicated to the Editor by Dr. Felix of Bristol, through Dr. Dickson of Clifton.

“DEAR SIR,

“I mentioned to you the other day, that an incident or two had occurred to me, in the early part of my practice, which, if not singular in their nature, are, at least, out of the ordinary routine.

“Mr. Gottoch, a country gentleman, 70 years of age, of a full, corpulent habit, but enjoying general good health, excepting annual fits of the gout, which had regularly recurred for several years, and which he jocosely called his Doctor, was laid up with a paroxysm of the above-mentioned disease, at Christmas 1787. Having occasion to pass through his domain, I made a friendly call, and found the old gentleman comfortably flannelled and bolstered up in bed; he was in high spirits, and said he had never before had so agreeable a fit, and insisted on my seeing his

rosy feet. I remonstrated with him on the danger of exposure, as the weather was cold, with a severe frost on the ground; but he would have his way, and the feet were exhibited in a state of *gouty perfection*. The inspection was not long, and I soon afterwards quitted him, promising to return to dinner. I was back within the hour, and went up stairs to chat with my old friend, till dinner should be announced. He was still sitting up in bed, and we resumed our conversation; but I now observed him put his hand once or twice to his left side, and I at length asked him if he felt any uneasiness there. He said he believed he was a little tired, and would lie down. His servant was accordingly called to assist him; but he had scarcely lain down, when he was seized with so pungent a pain in the side, that he was obliged instantly to get up again. This did not afford relief; the pain increased; his breathing became difficult; and, in short, in a few minutes, there was every appearance of the most acute pleurisy. The face became flushed; the pulse rose strong. On turning up the bed-clothes, and removing the flannels, I found, to my astonishment, the swelling totally subsided; the redness gone; and the old gentleman's feet perfectly free from pain. The dinner had just been taken up, and as it was a family Christmas fête, plenty reigned in all parts. As every copper, boiler, and pot, had been put in requisition, there was no want of warm liquids; and therefore a large washing tub was ordered up, into which I had poured decoctions of ham, beef, &c. without any regard to the quality but the temperature of the ingredients. Into this heterogeneous mixture the old gentleman was immersed as high as the hips, and while there I opened a vein and suffered him to bleed till he could breathe with freedom. By these prompt means I think his life was saved; but the

case proved troublesome and tedious; the gouty affection of the extremities was very partially and slowly brought back, and his *regular* attacks of gout were for ever afterwards suspended.

“ This retrocession or translation of gouty matter or action was certainly very sudden, and strongly marked. From the time that his feet were shewn to me till my being obliged to take blood from the arm, two hours had not quite elapsed. Perhaps, however, the instance is not very singular or unfrequent; but it is a necessary prelude to what follows. In short, it was the first link in a train of curious and anomalous symptoms which well deserve the attention of the pathologist and the practical physician.

“ The recovery of Mr. G. was slow, and his convalescence lengthened through the winter; but, as the summer advanced, he gradually recruited, and, to a certain degree, regained his usual health and spirits. His *regular* Doctor; however, returned no more, or paid him but hasty and unsatisfactory visits. About the close of the year 1788, he requested me to visit him, in order to consult me on a subject that had for some time given him much uneasiness, but which he had hitherto concealed. After much circumlocution, he unfolded this secret mischief, which turned out to be a well marked hydrocele. After various consultations and explanations, he consented only to the palliative operation, which was performed, and full a quart of water was drawn off. As may be supposed, the serous collection returned, and the patient was urged to allow the radical cure to be effected; but he begged to have the temporary operation once more performed, promising that when the scrotum a third time filled, he would permit the injection to be employed for a permanent cure.

“ When the tumour had a third time attained nearly its usual maximum size, I examined it particularly, late one evening, and appointed the next morning for the operation. On arriving, I found him in bed, and having spread the necessary apparatus on a table, I removed the bed-clothes, and exposed the scrotum; when, to my unspeakable surprise, as well as to the utter astonishment of my patient, not a vestige of the hydrocele remained! the scrotum was corrugated to its natural healthy size. Nothing particular had occurred during the night, which he passed in sound sleep, to account for the sudden disappearance of the tumour. He had voided no more urine than usual, nor had he had any evacuation from the bowels during the preceding twenty-four hours. However this might be, my patient expressed himself right glad that Nature had saved me the trouble, and him the pain of the intended operation.

“ No perceptible effects immediately followed this extraordinary absorption; but after a few weeks, marks of general constitutional disorder began to manifest themselves. He became dyspeptic; complained of wandering pains, a short cough, and some difficulty in breathing, on walking up a hill, or going up stairs. His arms were particularly affected with pain; and, by degrees, he lost almost entirely the power of using them. At this time there was no swelling of the feet or ankles; but he constantly observed, that the greater the pain in his arms, the more free was the chest. It would be tiresome to narrate the various remedial measures pursued during a long period of suffering; suffice it to say, that the affection of the chest finally swallowed up all other complaints, and Hydrothorax became strongly and unequivocally developed. For a long time, medicine kept this distressing and dangerous disease

in check; but at length, the constitution appeared to sink beneath its pressure, and his family were prepared for his decease: an event he himself fully expected; and for which he had made due preparation, by arranging all his temporal and spiritual concerns.

“ One night, when the last scene appeared to be closing, I was requested by the family to wait till the mournful event was over, with which solicitation I complied, as every phenomenon indicated that dissolution was at hand. Through the day, the patient had been entirely deprived of speech. I sat up with him till late, and then prevailed on the family to retire to rest, promising to have them called when the awful moment of our friend’s departure arrived. Finding that he still held out, I lay down about two o’clock in the morning, in an adjoining room, desiring the nurse to call me if any change took place. About seven she awoke me, to say that the patient was dying. I hastily repaired to the sick man’s chamber, where I found the whole family assembled round his bed to witness the last scene. Placing myself at the bed-side, I took his arm; but, instead of a pulse, an indistinct flutter only was occasionally perceptible. His eyes were fixed, and inanimate; a dewy sweat stood on his forehead; his breathing was laboured, and at long intervals; in short, he exhibited a perfect picture of a person in *articulo mortis*. In this state he continued upwards of half an hour, during which I kept my finger on his wrist, expecting the final stop, and thinking every attempt at respiration would be the last. During this distressing scene, he, to my astonishment—I may truly say *alarm*, opened his eyes, and starting suddenly up in the bed, fixed them, for several seconds, with fierceness, on one of his daughters, who sat petrified with fear near the bed-side, and then sprang violently out,

as if with intent to seize her, without my having the power, or the thought of preventing him ! He fell all along, however, and then we recovered sufficient presence of mind to hurry to his assistance, and re-convey him to his bed. From this moment his breathing became free ; his pulse returned ; his speech was restored ; but he was completely *deranged*, and continued so till his death, which did not take place till *fourteen months* after this eventful period.

“During this long state of hallucination, I had constant opportunities of observing this unfortunate patient. The mental derangement varied much in character. At the commencement, it seemed more like delirium than mania ; as it advanced, it often betrayed traits of whimsicality, often of fury. The first hallucination was an idea that he was at a particular inn, in a distant part of the country ; and this impression he retained for some time, talking incessantly night and day : yet he exhibited no symptoms of pyrexia, or increased vascular action of any kind. After some months, he was attacked with *prurigo*, which proved very troublesome ; but, during its continuance, there was an evident improvement in his general health. When this cutaneous eruption disappeared, anasarca supervened, and at length he died of general dropsy.

“I leave you, Sir, to make your own comments on this remarkable series of conversions, assuring you only of the fidelity of the statement, and authenticity of the facts. I have seldom related the case, because, in general, it was listened to with an air of scepticism when detailed ; but I cannot help thinking that it is not unworthy of record, or devoid of interest, both in a pathological and therapeutic point of view.

“I am, &c.

“MATHIAS FELIX, M. D.”

To Dr. Dickson, &c.

§ 10.—*Gout situated in other parts than the joints.* This has received various appellations, as *anomalous, irregular, and internal Gout*. It assumes almost every form; it attacks almost every organ. Here, as in the regular species, it shews a preference to the white *fibrous tissues*, where it is too often mistaken for rheumatism and nervous affections. Nor is it a matter of trifling importance to overlook an insidious irritation which, exercising itself to-day on a ligament, may to-morrow attack the stomach, the lungs, or the brain!

When seated in the coverings of muscles, the pain will wind in all the directions of those membranes, though no mark of inflammation or swelling appear on the surface. In the *ligaments* under the sternum, gout will imitate *angina pectoris*;—in the *periosteum* we will have nodes on the arms and shins, that are often taken for venereal. At this moment we are treating a gouty oblong tumour, very painful, and situated along several of the ribs. The patient had regular gout in the spring. Many such instances are on record. In attacking the *pericranium*, it will follow the line of the sutures so closely, that the patient, as Aretæus long ago observed, can trace them more accurately than the anatomist. That many of those periodical head-aches, which bark, arsenic, &c. fail to relieve, are gouty affections of the *dura mater*, we have every reason to believe. The capsular envelope of the *kidneys* is well known to be frequently the seat of gout; and this affection is not seldom confounded with lumbago, and other diseases of the neighbourhood. In many cases of *Ophthalmia*, with periodical exacerbations, the cause has been traced to gout. We have seen it unequivocally attack the testicle, in a man of middle age, but perfectly free from syphilitic taint. He experienced the most acute pain in the left testicle, without swelling, or any af-

fection of the spermatic cord. It succeeded a fit of regular gout.

Among the instances of gout affecting the white *fibrous tissue* of the arterial system, we might cite the history of the celebrated John Hunter, as given by M. Desportes in his treatise on Angina Pectoris. We there see the attacks of the chest *preceded* by fits of regular gout in the spring, and offering this remarkable phenomenon, viz. that the arteries of the left arm were the seat of such excruciating pain, that he could not bear the slightest pressure on them. Many cases, in fact, of what is termed Angina Pectoris, appear to be nothing else than a determination of gouty irritation on the heart and large vessels, or on the nervous plexuses in the chest.

The connexion between gout and nervous diseases, so called, is extremely worthy of attention and investigation. Whytt has judiciously remarked that men and women of robust constitutions are subject to gout, but very rarely to nervous disorders; whereas delicate people are seldom assailed by the former, but are very obnoxious to the latter. M. Ideler saw a fit of gout in the feet put an end to a most distressing train of nervous symptoms in a woman. Leidenfort relates a case of tic douloureux disappearing on the accession of gout in the foot. We ourselves have observed a nervous face-ache unequivocally connected with gout, and succeeding an eruption on the chin. The articulation of the lower jaw, on the right side, was the seat of the gouty pain; while another and distinct pain seemed to issue from the mental foramen, and ramify over the chin and lips. The attack lasted six weeks, and was composed of paroxysms like regular gout. During all this time, the Tic went *pari passu*; increasing, diminishing, and ceasing

with the other disease. A thousand facts might be brought to bear on this point, and induce us to believe that gouty and nervous affections are intimately connected—are influenced by similar circumstances, and have perhaps one common origin. This supposition will be strengthened by reflecting on the white *fibrous tissue* of which the covering or neurilema of the nerves is composed, and which we know to be the favourite seat of gouty action.*

Let us now proceed to trace the various transformations which gout assumes, when absent from the joints. Let us pursue this Proteus through all its metamorphoses, and make ourselves acquainted with his masks and forms, so that we may be able to recognize the enemy wherever he takes refuge, and combat him with success.

§ 11.—*Conversions of Gout into the forms of other diseases.* These are sometimes developed in consequence of imprudent applications to the joints, by which the gouty action is driven, as it were, from its exterior seat of occupation to an internal part—sometimes by powerful moral impressions, which disturb the economy of the living machine, and invert the harmonious order of its movements; hence these diseases have been termed *retrocedent*, *misplaced*, and *translated* gout.

Occasionally too, and without an evident cause, or external application, gout will shift its seat, partially or totally,

* Here is another blow to the class neuroses. We cannot help noticing the coincidence between the continental authors and Dr. Parry. Every day seems to furnish new proofs of the vast influence which the vascular system exerts on the nervous—probably through the medium of the white fibrous tissue or neurilema, where turgescence, inflammation, or gouty or rheumatic irritation, may readily excite those *spasmodic* affections hitherto denominated *nervous*. Vide Dr. Moulson on spasmodic affections, *Medico-chir. Journal*, vol. iii. and Dr. Seeds on blood-letting, in the first vol. of the same, p. 38, et seq.

from the extremities to internal parts, receiving the appellation of *spontaneous* retrocedent gout.

At other times again, and without any *immediately* preceding attack of the gout, internal affections, of gouty character, will occur, which for the safety of the patient require to be thoroughly understood. This form may be termed *masked*, or *latent* gout; and of which we shall enter into some detail.

Suppose, for example, a man has been subject to regular gout, but has now had an unusually long immunity from an attack. He becomes affected with some prevailing complaint of the season, and that at the period of former gouty seizures. His disorders not only resist the usual remedies, but are accompanied with irregular and anomalous symptoms, not generally observed in similar complaints. Here we have reason to suspect a latent or *masked* gout, although there was neither accession to, nor retrocession from the joints. If, as Stoll and Barthez have judiciously remarked, the stomach or abdominal viscera (organs which internal gout affects in preference) be the seat of disease, then we have additional grounds for the suspicion alluded to.

But we may reasonably suspect the gouty nature of many internal affections, where the individual has never experienced the regular form of the disease. According to Barthez, the following are sure indications. 1st. If the parents have been subject to gout, or if the local nature of place of residence predispose to disease of this kind. 2d. If he have the gouty form of body. 3d. If he have habitual derangement of the digestive organs—and particularly if he be intemperate or passionate. 4th. If he be subject to internal pains, more or less severe, which increase or decline at particular seasons, or are influenced by the state of

the skin, and perspiratory function. If to any of these signs are added pains of any part where the *white fibrous tissue* obtains; and if he have previously been in the habit of voiding urine with considerable sediment, then there is every probability that the anomalous malady of the patient is gout *en masque*.

If we examine the writings of Musgrave, Cullen, and Stoll, we shall find ample confirmation of the foregoing reasoning. Among the various masks which gout assumes, Stoll enumerates the following; Chronic Colics, Piles, Hypochondriasis, Melancholy, Mania, Asthma, Vertigo, Apoplexy, Epilepsy, Hysteric and Nervous diseases, chronic Eruptions, &c. It is true indeed, that it is not in our public hospitals, those asylums of indigence and misery, that we can study a disease which has been aptly termed the "*disease of the rich*." It is in the higher walks of life, and among people of condition, that we recognize all the various transformations above enumerated by Stoll and many others.

§ 12.—*Indication of the principal species.* When gout presents itself under those forms and circumstances, to which we apply the epithets *repelled*, or spontaneously *retrocedent*, it constitutes, in reality, either *an inflammation* more or less intense, of the organs assailed, or an affection to which we may apply the term *nervous or spasmodic*. These are the two principal modes of internal gout. The possibility of its existence, as *an inflammation*, should never be lost sight of by those who would oppose that cruel and indiscriminate routine which, even when the enemy is ravaging the stomach under the form of inflammation, obstinately persists in seeing nothing but a *je ne sais quoi*, called gout, which it pretends to frighten back to the extremities, by pouring on an inflamed surface the most burning tinctures,

or stimulant liquors, endowed with supposed *specific* virtues against the gouty irritation!

§ 13.—*Nervous or Spasmodic form of misplaced Gout.* Numerous examples of this are seen in the organs of sense, particularly in the eye. Barthez knew a gouty subject affected with a kind of *false perception*, in which the patient saw a circular spot float before the eyes, and which disappeared on the accession of gout in the extremities. Aetius relates a similar instance; and Klein mentions a *gutta serena* occasioned by retrocession of gout, and cured by a judicious application of blisters.

These, however, are generally complicated with other affections of the neighbouring parts. The following very illustrative case we owe to the Breslau Physicians.

Case. “A man, who had led an irregular life in his youth, was seized, at the age of manhood, with violent colic pains, terminating in palsy of half the body, of which he was cured by mercurial frictions. Some time after this, he experienced a sharp attack of gout; but not having patience to support the pain, he plunged his feet several times, and afterwards his whole body, into water in which had been quenched heated silver. The pains left the joint, but attacked the head with indescribable violence. Each paroxysm of pain was ushered in by a profuse effusion of tears, with some convulsive motions of the eyes, buzzing in the ears, uneasiness in the stomach, and discharge of pale urine. The pain usually commenced in the left side of the head, sometimes on one point, sometimes on another; darting thence, with great violence and rapidity, to the neighbouring parts, as the jaws, the shoulders, and even to the right side of the breast. But it was in the central part of the eye that the pain was most insupportable. From time to time, a red tumour would form on

the nape of the neck, so extremely sensible that it could not be touched without occasioning exquisite torture. These paroxysms would last from twelve hours to two whole days, during which time the patient could neither bear a ray of light on the eyes, open his mouth, or breathe with freedom. When the paroxysms arrived at their height, vomiting took place, and the whole terminated by a flow of turbid urine letting fall a very copious sediment, after which the patient remained for some time, in a low irritable state." *Hist. Morbor. qui Vratislav*, p. 51. The Editor has a case, very similar to the above, under his care at this very moment. The subject of it, a female, has had paroxysms of the above kind, and preceded by the same phenomena, for more than 20 years. They generally come on once a week, lasting from four to twelve or sixteen hours. They were once suspended for eleven weeks by a smart salivation, and very low living.

In Hoffman we find an account of chronic sleepiness determined by retrocession of gout from the joints; and of a *lethargic* complaint, corresponding with the *latent* gout of STOLL.

GOUTY APOPLEXY, the worst of all its forms, is often preceded by affections resembling those above related; particularly giddiness, sometimes transient, at others chronic, accompanied with a kind of stammering in the speech, and staggering in the walk. These phenomena ought to be viewed by physicians as the serious warnings of impending danger !

Case. "Madame de St. J—— affected many years with gout, experienced last winter, for the second time, an apoplectic seizure, with palsy of one side. We were called," says M. Guilbert, "in consultation, and prescribed what we thought necessary for the moment. The following

day, on visiting our patient, every trace of apoplexy and palsy was gone; and, in their place, a paroxysm of irregular fever, with delirium, violent agitation, &c. These symptoms presently subsided, and the original complaints returned, but curiously modified. The arm of the paralytic side, previously insensible, had now become the seat of such excruciating pain, that the most gentle touch caused the patient to cry out piteously. The arm has since remained paralytic. We have seen the same train of phenomena in another case of gouty apoplexy."

In the writings of Wepfer, Hoffman, Musgrave, and Morgagni, we find numerous examples of gouty apoplexy. Among these we ought not to pass unnoticed a species of this sort, observing a type which, if not strictly periodical, yet approaches to it. It returns at short intervals, and generally at the periods when regular gout might be expected. We have seen so many instances of this and other masked forms of gout, that we are impressed with the necessity of giving the bark, in full doses, at the close of an attack of internal gout, to prevent subsequent accessions of this kind.

Case. A woman of strong constitution, born of gouty parents, and affected, for many years, with wandering gout, was stricken, after a long cessation of the menses, with a violent fit of apoplexy, which instantly deprived her of sensibility, motive power, and intellectual faculties. The treatment proved fortunate, and at the end of a few days she was apparently recovered; nevertheless we recommended the internal use of the bark, in large doses, to fortify against relapse. The medicine was scarcely tried, when she was persuaded by her attendants that it could not be necessary in her advanced state of convalescence. But on the eleventh day from the attack, and at the moment

when she was receiving from all quarters visits of congratulation on her happy recovery, she was seized with a paroxysm of irregular fever, which terminated in apoplexy.

Anomalous gout, which counterfeits most forms of disease, has sometimes assumed that of *Epilepsy*; and very frequently that of *Hypochondriasis*. Tode, of Copenhagen, and many eminent physicians have expressed themselves to this effect. Ideler says the same of *Hysteria*, and most of those diseases denominated nervous. Musgrave relates numerous cases of *Hypochondriasis* and *Hysteria*, terminated by the developement of gout in joints. The more closely we compare Hypochondriacal and anomalous gouty symptoms together, the more reason we shall probably have for assigning them one common origin, or at least a near degree of consanguinity.

Case. A lady, says Guilbert, arrived at the turn of life, became affected with *periodical* hypochondriasis; each fit of which commenced at sun-rise, increased till noon, when it was at its height, and then declined as the sun approached the western horizon. Here the degree of hypochondriacal affection bore a relative proportion to the altitude of the sun. The patient at first, merely a little low spirited, became gradually more and more dejected and depressed, till she appeared devoured by chagrin, or overwhelmed with despair. But when the sun had attained the zenith, such a sentiment of terror took possession of her mind, that the least noise—the lowest spoken word, seemed to her imagination the signal of some dreadful misfortune that was ready to burst over her and destroy her! As the sun declined from the meridian, this morbid affection diminished; retracing its steps through the same grades of sadness which marked its developement. To this state of terror succeeded a pro-

found sense of chagrin, which becoming weaker and weaker, took on various shades of sorrow, till it ended in a mild and not unpleasant state of melancholy. Such was the train of mental emotions; during which, other phenomena presented themselves. At the moment of accession the patient felt a sensation of darting or quivering in the region of the heart; which sensation radiated in all directions, but particularly towards the superior parts. Then the pulsations of the heart, and finally of all the other arteries, became hard, strong, and greatly accelerated. Such was the augmented propulsion of blood into the arteries, that we could see the fingers start involuntarily, at each beat of the heart. This curious sensation which preceded the preternatural action of the heart and arteries, increased, *pari passu*, with that action; with the hypochondriacal paroxysm; and with the elevation of the sun above the horizon.

This case, so very interesting in itself, is singularly so on account of its periodical nature, and that remarkable sensation which radiated on the heart, and thence throughout the whole arterial system. These traits, in our mind, point out *a gouty affection of the nervous plexuses in the region of the heart.*

After a long and strict attention to various other hypochondriacs, we have very generally observed a *marked and painful sensibility in the vicinity of the celiac artery*; which sensibility was invariably augmented, at those times when the hypochondriacal affection became more intense. This observation has presented itself so often in practice, that we have been led to conclude that, *Hypochondriasis is often no other than a painful nervous affection of the cardiac plexuses.* When indeed we reflect on the agency and influence of the nerves in question, in the de

velopement of many melancholy emotions of the soul, arising from the state of internal sensations, *in health*; and when we recollect that their neurilema or covering, is a *white fibrous tissue*, the favourite seat of gout, we cannot wonder that a material derangement therein, should reproduce these same sombre affections, and give rise to a train of melancholy illusions in the mind.*

* This doctrine of the Continental physicians receives considerable support from the success which has attended the late practice of *evacuations and low regimen* in chronic, and what are termed *nervous* diseases, though attended with much apparent debility. Dr. Parry has distinctly stated his opinion, that in most diseases of the class *neuroses*, there are determinations of blood to certain parts—(for instance to the neurilema in *tic douloureux*;) that cause the whole of the phenomena. He asserts that the cure of this disease, by dividing the nerve, was an illusion; and that the benefit resulted from dividing the artery, and evacuating blood locally from the neurilema. At all events there is a striking coincidence of opinion between the British and continental pathologists on this point. EDITOR.

Since writing the above, I have met with a remarkable illustration of the subject in question. A man labouring under hydrophobia, exhibited not, to the last moment of his existence, a single symptom of fever or inflammation, beyond spasms, and other phenomena classed under the term “nervous.” On dissection, however, we found (and I dissected the brain myself) effusion of water on the surface and in the ventricles; while the base of the brain, the *medulla oblongata* and *medulla spinalis*, exhibited a crust of the most intense inflammation I ever beheld. A great quantity of bloody serum ran from the vertebral canal during and subsequent to dissection. Deputy Inspector Hennen, Surgeons Webster, Hughes, Stewart, and several other medical gentlemen, witnessed these phenomena, and saw the man before death. *Vide Medico-chirurgical Journal and Review for October, 1817.*

Now if such a state of the origin of the nerves, and of their coverings, can exist without producing the usual symptoms of fever or inflammation, but only *spasmodic and nervous* phenomena, have we not fair reason to believe that lesser degrees of this state may produce various

Authors furnish us with many cases of gouty melancholy and *Mania*; Whytt in particular. We have seen melancholy with a disposition to suicide alternate with wandering gout. Paulmier knew a magistrate of Anvers, a great eater, and lover of rich ragouts, who had long suffered from inflammatory gout of the joints, but who experienced translation to the head, with peculiar symptoms. He sometimes fancied himself in company with people to whom he directed his discourse; at others, that he was in a coach drawn by six horses, with various other illusions. As soon, however, as blisters were established on the feet, these illusions vanished, and he had an immunity from all complaint for eight or ten days. Now came gout again to its old abode in the feet, soon afterwards translation to the brain, then fresh visions, fresh phantoms, fresh blisters, and another release from all the symptoms. Paulmier operated a complete cure by the establishment of a cautery issue on each leg.

Many facts prove that the nerves of locomotion, and even the voice, come under the influence of misplaced gout.

Case. A man affected with gout of the joints, experienced some reverses of fortune. At the period of the usual attack of gout, he was seized, all at once, with St. Vitus's dance, which kept him in continual agitation for several days. In the midst of this frightful dance, and convulsive laughter which accompanied it, he ceased not to disclose the violent chagrin with which he was tormented. Some

affections hitherto included in the class *neuroses*, and too often treated with stimulants, antispasmodics, &c. instead of local and general abstractions of blood, blisters to the spine, frictions, and those other means which determine an equable state of the circulation and excitability. It is to be hoped that a new light is breaking from the tomb on this obscure but important point of pathology.—EDITOR.

of the joints became slightly painful, but a complete development of regular gout could not be effected.

But of all parts, the *digestive organs* seem to bear the greatest weight of misplaced spasmodic gout. We are overwhelmed, as it were, with histories of spasmodic affections of these parts, resulting from retrocedent or latent gout. The six first chapters of Musgrave treat in detail of these affections. Stoll remarks that "it is not uncommon to see gouty people complain for whole months, and even years, of various stomach affections, such as dyspepsia, flatulence, water brash, or, on the contrary, of a most distressing sensation of cold at the pit of the stomach." Hoffman observed *spasmodic vomiting* after the application of camphorated liniments to the swelled joints. De Hahn relates the case of Prince Sinzendorf who was harassed with a species of canine appetite from misplaced gout.

Among the *spasmodic affections* of the circulation and respiration, *Angina Pectoris* shews itself frequently, as a formidable transformation of gout. We have observed it as such many times. The periodical publications of Germany and England are full of similar examples—so much so, that many distinguished physicians have been led to consider this disease as essentially gouty. Of all the *spasmodic forms*, however, GOUTY ASTHMA is, beyond a doubt, the most frequent.

§ 14.—*Gouty cutaneous inflammation*. Stoll has well described the Gouty *Erysipelas*, or *St. Anthony's fire*. He has seen obstinate cases of this affection, occupying the face and other parts, sometimes shifting its seat, and only occasioning a slightly elevated swelling, with an ichorous discharge. After harassing the patient for months, and even years, its real nature would be all at once revealed by a transformation into tedious gout. *Rat. Med.* p. 436.

Musgrave saw Erysipelas of the face suddenly change into gout of the joints after blood-letting. But who does not daily see anomalous gout under the form of Erysipelas, especially after the application of a sinapism, blister, or other analogous irritation?

We have frequently observed wandering gout assume the mask of *herpetic eruptions*, and lurk about the parts originally affected, as the wrists and ancles. But, in gouty subjects, we still more frequently see a host of anomalous eruptions, which it is difficult to describe or class.

§ 15.—*Gouty inflammation affecting the mucous membranes.* We daily see *gouty ophthalmia*. This species often becomes chronic, accompanied with a troublesome itching. Sometimes the eye is dry, at others annoyed with a profusion of hot, acrid tears, the edges of the eyelids being red and inflamed. This ophthalmia occasionally transforms itself suddenly into *gutta serena*. Although gouty inflammation of the *stomach*, is not much noticed by authors, it is an occurrence that very often exists. Hoffman was the first, and almost the only one of his time, who recognized this affection; ascertained its frequency, and described it in an excellent little treatise on the subject. M. Broussais has, in our own time, pushed his researches on this subject with great success. The same remarks are applicable to gouty inflammation of the *intestines*, which has often masked itself under the form of pains, spasms, flatulent colics, diarrhoea, and even dysentery. In the two last forms the discharge from the bowels is not seldom salutary, and tends to check inflammation. Much mischief has been done in these instances by the imprudent exhibition of astringents. We may observe here that gouty inflammations of the abdominal viscera are generally very complicated, irregular, and puzzling. Thus we have seen *inflammation* of the bowels in

some cases, complicated with painful spasms in the testicles—in others with a sense of enormous load on the breast ; and we have seen a fatal inflammation of the stomach combined with acute inflammation in the heart.

Gouty *Cholera morbus* sometimes assumes a formidable and dangerous aspect. It was this affection that terminated the career of the illustrious Sydenham. Chronic inflammation of the bladder is not a very uncommon mask of anomalous gout. We have seen an instance of this disease connected with wandering pains of the testicle, preceded by gouty head-aches and other affections. Gouty whites are not unfrequently met with, even in young women, who have had no preceding symptom of a gouty nature. J. Storch relates the case of a young woman 30 years of age, of a melancholy temperament, who, after her first accouchement, was seized with whites, which, being stopped, were succeeded by gout in the great toe. After various means were used, the pain forsook the toe, and the whites re-appeared ; this last affection alternating afterwards, for many years, with head-ache, and tooth-ache. These gouty gonorrhœas and whites are occasionally accompanied by such acrid, burning, and variously coloured discharges, as to imitate venereal disease, and give rise to dreadful quarrels between man and wife, which none but the physician can appease !

§ 16.—*Gout under the form of inflammation of the serous membranes.* To the following case M. Guilbert was called in the middle of the night.

“ A man of strong constitution, and gouty form, after having, the preceding day, experienced wandering pains in the joints, loins and hips, committed a debauch in vinous liquors, with a rival, in whose company he was obliged to bridle his resentment and appear chearful. He returned

home full of wine and chagrin, at the same time. He retired to bed : but was soon awaked by the most acute pain in the region of the heart. He cried out that his rival had poisoned him ! Some pints of warm water were given him, which he threw up, by torrents, with the wine he had drunk. No ease followed :—the pulse was not small and concentrated, as in severe abdominal affections : on the contrary, it was full, strong, hard ; and he experienced the most excruciating and fixed pain exactly in the region of the heart. This pain had a remarkable character of burning heat, which he compared to an internal fire that devoured him. A very copious bleeding from the feet, leeches over the whole region of the heart, and mustard poultices to the knees, were instantly and simultaneously practised. These, with diluting drinks—the most rigid abstinence—glisters—and consoling advice, soon freed him from his perilous situation, and effected a complete cure.”

It may be here remarked, that gouty pleurisy often supervenes on simple pain in the side.

Case. A man of gouty constitution was seized with sharp pain throughout the whole of the right arm, and right side of the chest. This pain was, at first, confined to the parietes of the thorax ; but afterwards seemed to shoot to the interior, and, by the next day, developed symptoms of pleuritic inflammation, such as pain in the side, oppressed breathing, bloody expectoration, &c. The height of the disease presented delirium—a sub-apoplectic state, with *stertor*, &c. Leeches and blisters had been applied in vain. We were called in consultation, and advised mustard poultices with ammonia to all the principal joints at the same instant. There was not a moment to be lost ; and we could hardly hold out a hope of recovery. Nevertheless, the mustard poultices had no sooner began to act on the

various joints than the head and chest experienced relief, and, in fine, the patient was snatched from the brink of the grave ! From this and many other similar facts which we could instance, it ought to be borne in mind, that however formidable a malady retroceded gout may be—however terrible may be its form—inflammatory its nature—and indicative of impending death its symptoms; yet we should never despair, nor relax our efforts, while life remains. For this gouty inflammation, even of the most important internal organ, preserves to the last its original character of *mobility*, and may often be totally or partially diverted from its seat, when all appears to be lost.

The following is an instance of gouty affection of the womb.

Case. Madame E——, a lady of athletic and gouty form, with a large head, and masculine bones, was afflicted during fifteen years in the following manner. She had experienced great troubles of mind—led a sedentary life, and lived in a damp situation. Frequently, and especially in spring and autumn, after some wandering chills, she would be seized with fever, accompanied with pain and tension in the region of the womb. The neck of this organ now became hard and painful—highly sensible to the touch, with lancinating sensation extending to the labia pudendi and anus—pain in the urethra, increased while making water—tongue clear, but pale like the countenance. As the inflammation of the womb ran high, it extended to the neighbouring parts, when well marked peritoneal inflammation, with swelling, tension, and pain in the belly set in, the pulse being small and concentrated. To these symptoms were added some that were hysterical, as weeping, spasms of different parts, &c. Emollient applications, the warm bath, leeches, &c. externally, with acids and di-

luents internally, afforded no relief. Repeated and large bleeding from the arm produced the desired effect; but then came on such irritability of the stomach, that nothing would lie upon it. Camphor, with cold drinks, diminished or removed this symptom. These accessions lasted from ten to fifteen days, and, on disappearing, the urine let fall a copious sediment. A silver watch, which the lady wore in her breast, became black during these paroxysms, and bright when it was over. These accessions returned for a long time periodically, almost every month; latterly only once or twice a year. The extract of wolf's-bane, given towards the close of the paroxysms, seemed to procrastinate their return. A considerable swelling of the womb continued for some time after each attack. This swelling, the sense of tightness of the part, the difficulty of walking, and the tints of her complexion, induced many to believe that there was scirrhus or organic disease of the womb. At the age of 45, this lady died of a low fever, succeeding one of the above described attacks, and on examining the body, some slight traces of inflammation were observable on the exterior tissue of the uterus, the structure of the organ being unimpaired, and its volume scarcely augmented in any sensible degree. Similar affections of the womb we have been in the habit of frequently observing for many years past. *Gouty inflammation of the kidneys* has been too often seen, to require proofs in this place; but it may be useful to give some examples of the disease, as affecting the fibrous covering of this gland in particular.

Case. A man, who had hardly attained his fortieth year, of sanguine temperament, spare habit, and who, although intemperate, both in eating and drinking, yet had never experienced illness, especially of a calculous nature, was seized, all at once, with a violent pain in the lumbar region,

accompanied by shivering and coldness of the extremities, succeeded by burning heat, full frequent pulse, and thirst. The belly was hard, and distended with flatulence. Some conceived that there was some kind of luxation of the lumbar vertebræ; others that the disease was inflammatory fever; but as there were some efforts to vomit, while the urine scalded, and was scanty, I considered the complaint as affecting the urinary organs. Glisters—fomentations—barley-water with nitre, &c. but no relief was obtained. The symptoms became more and more urgent. Bleeding from the foot, continuing the aforesaid remedies. Shortly after this the urine flowed copiously—the pain was assuaged—a perspiration broke out over the whole body;—and on the 7th day of the attack, there came away with the urine small pointed grains of shining sand, but no calculus.

§ 17.—*Gouty Inflammation affecting Muscular Tissues.* Nicholas Chesneau, in his *Medical Observations*, has given an excellent picture of this kind of fibrous gout, as experienced in his own person. We shall endeavour to give an outline of it here. It will help to shew the narrow limits which divide Gout from Rheumatism.

Case. Chesneau, from his earliest infancy, was in the habit of sleeping with his head uncovered; and of washing it with cold water, when in a state of perspiration. He had then suffered affections of the teeth, and lost almost all the grinders. Afterwards he became subject to rheumatic affections; and still later he came under the influence of those causes which dispose to gout—particularly excessive study and late hours. His stomach first suffered—then head-ache tormented him—and afterwards pains in both sides, near the nipples. In vain he kept his head covered by day and by night. He was assailed by pains in the soles of the feet—round the heel—in the hands, hips,

and lastly, in the joints of the great toes. He was now forty-five. The hips, knees, and feet, were the principal seat of the disease. He was every morning covered with perspiration, which at length carried off all his pains. But the perspirations having ceased, the pains returned to the loins, and to the right ureter, with every symptom of gravel, excepting the actual discharge of it. Then the stomach became affected with the most insufferable heart-burn, which, in its turn, gave way to a severe catarrh. He had now attained the age of fifty-two. For several years he suffered from a species of rheumatism in the knee, with pains, at intervals, in the ribs of both sides. These were alleviated by sudorifics. Arrived at sixty-six, he became exceedingly sensible of every atmospherical impression. Lastly, he was harassed successively with the tooth-ache—pulmonary catarrh—pains in the shoulders, arms, shoulder blades, ribs. Then shifting their seats they attacked, in rotation, the hips, the popliteal nerves, the tendo achillis. Having now traversed the body and extremities, they remounted again to the head and superior parts, to run their cruel and undeviating course over and over!

Innumerable instances might be brought forward from the records of medicine, of gout affecting the muscular parts; but it is not always under the word "Gout," that we are to look for them. It is from among the extensive tribes of *Rheumatic*, *Catarrhal*, *Spasmodic* affections, that the experienced and discriminating eye will detect the masked forms of the disease we are treating of, and which pass unnoticed by the superficial observer.

§ 18.—The connexion between gout and the hæmorrhoidal discharge has been often noticed. Stahl believed that frequent applications of leeches to the hæmorrhoidal veins would cure gout entirely. Hoffman has observed that sup-

pressed piles have been immediately succeeded by an attack of gout in the feet; and Forestus saw a paroxysm of the gout instantly disappear on the formation of an hæmorrhoidal swelling. Such conversions, however, are not always desirable, as the following instance, related by Stoll, proves. A man forty years of age, and intemperate, after some pains in the joints, which suddenly disappeared, was seized with desire to stool, colic pains, and a discharge of black blood from the anus. All these symptoms became aggravated towards evening, and gangrene put a speedy end to his existence!

§ 19.—*Gout as connected with age.* Although gout, even when hereditary, seldom shews itself before the 25th year, yet venereal excesses will cause its premature developement. The following is the general line of its march. In *youth* the paroxysms are imperfect, or, as it were, *abortive*. During *manhood*, if the disease be not conquered, it will occur at gradually shortened intervals, in the form of *regular* gout. Then comes chronic gout; afterwards fixed, or *anomalous* gout; and, last of all, dangerous internal gout, with the frost of old age!

§ 20.—*Gout as connected with Sex.* Long before the turn of life anomalous gout is seen in females. Nevertheless it is certain that wandering gout is more common after than before the cessation of the courses. *Regular* gout is but a rare occurrence in females at any time. Speaking *generally*, gout assumes the spasmodic form in women, and the inflammatory in men.

§ 21.—*Gout as connected with habits or professions.* Panarole has remarked, that people who have been much addicted to the *danse* in youth, were subject to gout in old age; and Pecklin accuses *tight shoes* of producing the disease. If the effects of misplaced gout are more observ-

able in the stomach and intestines than in other parts, it is doubtless owing to that *habitual abuse*, both in eating and drinking, to which the present state of civilization has led us. Where temperance is observed, the seat of gout will be determined by various causes. Thus the philosopher or man of science will have gouty affections of the brain and nerves of sense; the singer, the actor, and the barrister will be subject to gouty catarrh, and affections of the lungs. The man of sedentary life will be more prone to gouty affections of the kidneys, than he who uses exercise. The woman who has borne many children, or who has experienced many abortions, will be disposed to gouty affections of the uterine system; and finally, the libertine will suffer in the genital organs.

§ 22.—*Gout as connected with the Seasons.* Although, when the predisposing and exciting causes are strong, the disease may appear at any season; yet, speaking generally, the spring and autumn seem its favourite periods, as Hippocrates long ago remarked.

§ 23.—*Gout as affecting different Classes of Society.* It was from comparing those who *are*, with those who are *not* subject to gout, that Grant determined on the *causes* of the disease; to wit: an easy, indolent life, with too much food; debauches passions of the mind, sorrow and grief. Gouty affections are indeed very common among those who, like the Sybarites of old, pass their days in the midst of effeminacy and sensuality. The Roman writers inform us that these diseases were extremely general when the Roman manners became corrupted. Even the women were often attacked—*ob varii generis debacchationes*. Seneca. On the contrary, the disease was little known among the ancients, in the times of primitive simplicity, and when Gymnastic exercises were in vogue. The

Chinese and Japanese are hardly ever affected with *regular*, but are very subject to *anomalous* gout, which often shews itself in those sudden and colourless tumours which induce the physicians of those countries to believe that the disease consists of wind: hence their remedy of *puncture* by the needle.

In these latitudes, the gout seems to affect, in preference, the inhabitants of countries bordering on the ocean, or intersected by numerous marshes. It is particularly common in England and in the north of Germany. In some parts of these countries the disease would seem almost *endemic*.

§ 24.—*Gout in relation with other Diseases and with itself.* Anomalous or wandering gout readily simulates rheumatism, or alternates, in preference, with hæmorrhages and cutaneous diseases, as herpes, erysipelas, &c. The diseases of youth will not seldom prognosticate those of old age. How often have we seen those, who were afflicted in early life with excruciating head-aches, with hæmorrhoids, or annoyed with foetid perspiration on the feet, become gouty at an ulterior period of their existence? Ask those who are now the subjects of wandering gout, and they will tell you that formerly they suffered from hypochondriasis, bleedings from the nose, or various affections of the skin. In respect to the disease itself, we see it set in, after various premonitory symptoms already noticed, and attack the extreme parts of the body, as the toes; in short, those parts that are the most distant from the vital organs. Here it stations itself for some years; but age approaches, or the patient becomes accidentally weakened, and then the enemy advances a step nearer the trunk, seating himself on the heel, ankle, tendo achillis, knee, wrist, or elbow. At a still more advanced

epoch, the hips, shoulders, and other parts near the vital organs, become the theatres of gouty action, and then there is but one step more, and it assumes the form of anomalous gout, preying on the various tissues that cover or compose the important organs of the head, thorax, and abdomen ! At this moment we have under our eyes a remarkable example of this progressive march of gout. The gentleman had, in his youth, been cruelly harassed with head-aches, that confined him for whole days to bed, and with considerable hæmorrhoidal swellings. Regular gout of the extremities then commenced, and lasted eight years. During the next twelve years he was afflicted with gout in the knees, wrists, and elbows. For twelve months past, the hip has been the seat of the complaint ; and we now consider him as on the verge of internal gout !

The parallel between gout and certain other diseases is sometimes very striking. Let us instance St. Anthony's fire. In both diseases a rigour is perceptible ; a swelling follows, with heat, redness, and a great similarity of aspect. The pain in both cases, it is true, is not the same, but we must recollect that the same disease affecting different structures will excite very different kinds of pain. The swelling in both cases disappears in a somewhat similar manner—by a species of scaling of the cuticle. Certain kinds of erysipelas leave a soft swelling behind them ; so do certain species of gout. Again, with what terrible facility will topical remedies, imprudently applied to a gouty swelling, produce retrocession of the disease, with horrible ravages on the interior organs ! It is the same with erysipelas. The same topical applications will determine similar effects on the internal organs in both cases. Hoffman and all careful observers have recorded numerous examples on this head. Gout has been known to establish

itself internally, without previous retrocession; so has erysipelas. Gout and erysipelas are both occasionally periodical. They are both accompanied by derangement of the digestive organs, so much so, that many physicians have considered erysipelas as merely a sympathetic affection of this derangement. We have noticed wandering gout. Erysipelas often deserves the same appellation. Frank has recorded a memorable example. "A woman was affected with erysipelas on the face. On the thirteenth day, there was a translation of the disease to one of the feet, and shortly afterwards from this to the hip. Presently it returned to the face again; from thence to the intestines. From the intestines it suddenly shifted to the foot previously affected, thence to the ribs, the lungs, and last of all to the brain, producing death!" In short the more we consider the mutations of erysipelas, and compare them with those of gout, the more forcibly shall we be struck with the analogy of the two diseases.

§ 25.—*Is Gout hereditary?* There are many people who seem to inherit gout from their parents; since their modes of life can have no influence in producing the disease. This is acknowledged by all impartial observers. We have at this moment under our eyes an example, or rather an incontestible proof of the position.

A man, the father of a numerous family, had eight children prior to his being affected with gout, and, in particular, with an obstinate sciatica, which harassed him the remainder of his life. While afflicted with this disease, he became the father of a ninth child, and this son was the only one in the family who afterwards exhibited gout. This son was moreover of a sober, temperate character; and excepting a somewhat sedentary life, came under the influence of no other predisposing or exciting cause of gout.

But is the Son of a Gouty Parent necessarily and infallibly destined to endure the torments of his father's malady? Loubet has answered this question by the following authentic history. "A gouty parent had two twin sons, who grew up like himself, stout and well made. Both the sons resembled the father much in corporeal characters, but not in turn of mind, and they led a very different kind of life. One lived at home with the father; fell in with his tastes and habits, and early exhibited unequivocal symptoms of gout. The other son's destiny obliged him to lead a life of temperance and activity. He was never affected with gout." *Lettres*, p. 132.

§ 26.—*Morbid Anatomy of Gout.* Lieutaud observes, that the joints of gouty subjects present, on dissection, a chalky substance surrounding and covering, not only the tendons and ligaments, but the bones themselves, which are sometimes displaced thereby. He adds, however, "that this substance is not found within the capsular ligaments." Bonetus, Schneider, and Fernelius have made the same remark; and these authorities are brought forward in support of the doctrine, (held by many) that the seat of gout is in the *fibrous tissues*, exclusively, which surround the joints. Nevertheless there are not wanting facts to prove that the *serous or synovial membranes* are not exempt from the disorganizing ravages of the disease. Portal has seen the synovial liquor, in a gouty subject, as thick as Jelly, and also concreted to the consistence of Plaster of Paris. He, as well as Morgagni and Dobrenzki, has observed, in patients long tormented with gout, the bones of the feet forcibly separated by these concretions, which resembled so many wedges. The following dissection, in which, says Guilbert, we were assisted by M. Dallidé, a young but distinguished physician, presents a train of

varied and important results, that must prove highly illustrative of the lesions occasioned by gout in the joints, and serve to check the adoption of any theory which confines its action to particular structures.

Case. This unfortunate subject, though not far advanced in life, had nevertheless been long a sufferer from gout in the joints. It had begun to assume the tophous character, when, under the direful influence of a sudden and overwhelming mental affliction, the unhappy patient expired in the very middle of a paroxysm of gout!—The disease at this time was seated in the left foot, and right hand. The metatarsal joint of the great toe presented itself surrounded with this chalky concretion of a very light rose colour. It extended itself irregularly over, and enveloped the bony extremities composing the joint. On the inner side of the foot, and near the joint in question, was a small abscess, filled with puss, mixed with the chalky concretion, comminuted into such extremely fine particles, that they appeared capable, under favourable circumstances, of escaping through the pores of the skin. The neighbouring parts were in a high state of vascularity. The synovial membrane itself was lightly but completely injected. The bony articulating surfaces were incrustated with a thin layer of white substance, differing from the above-mentioned concretion, in colour, and also in the grain, which appeared much finer; the articulating surfaces being not the less smooth and polished, on account of this incrustation. The rest of the interior surface of the synovial membrane was covered with the same kind of chalky concretion which enveloped the exterior of the joint, but in smaller quantity. At this moment we observed that the articulating surfaces of the wrist joint, (where we had amputated the hand for the sake of a more

deliberate dissection) although they exhibited nothing unusual at the time of amputation, had assumed in the space of two hours, the appearance of a white and polished crust, like the boiled white of an egg. We now examined the other joint of the same great toe, which had been slightly engaged in the gouty paroxysm, and found the interior of the articulation very slightly inflamed. This inflammation also, was less sensible on the bony surfaces, than on the other portions of the synovial membrane.

On the back of the hand, was a kind of ganglion, situated at the point where the common extensor divides into the different tendons of the fingers. The integuments being removed, we observed a small cyst of a deep red colour, which could not be separated from the tendon. It was filled with a bloody fluid mixed with fine grains of the same chalky matter found in the abscess on the foot. The tendon itself, when split up longitudinally, displayed very visibly between the fibres of which it was composed, a quantity of this same chalky matter in the form of exceedingly fine sand, penetrating throughout the whole of its interior structure for more than an inch. The separate tendons going to each finger presented the same phenomena; and under the common extensor was found a slip, as it were, of this concretion, loose and detached from the tendinous fibres. On turning up the hand, we found underneath the skin, between it and the flexor tendon of the thumb, a chalky concretion of the same kind as the preceding, but quite unattached to any fibrous or serous tissue, and surrounded with fat. This surface of the hand exhibited no other trace of present or previous disease.

We next examined the other joints of the hand affected with gout; and found the same state of inflammation,

exterior and interior, with similar depositions, &c. as above narrated. We then opened various other joints unaffected by gout, and found them present the most perfect and healthy contrast to those which had felt the disorganizing ravages of the disease.

Such then were the important results of this minute and careful dissection. They fully prove that gout is not exclusively seated in this or that tissue; but that it may affect them all, either separately or collectively.

In respect to the ravages of *misplaced gout*, they are as diversified as the symptoms themselves. Lieutaud enumerates, among others, effusion of blood into the ventricles of the brain, lungs infarcted, inflamed, putrid, and eroded; stony concretions in the brain, heart, lungs, &c.—gravel and calculi in all the urinary receptacles, kidneys corrugated, spleen obstructed and indurated, liver granulated, inflamed and putrid, pylorus indurated, prostate gland enlarged, &c. In short, as misplaced gout transforms itself into the similitude of almost every other disease, so its disorganizations are similar to those resulting from maladies which it imitates.

Case. Portal relates the following instances. A man, 40 years of age, who had been imprudently freed from gout in the feet by sponging them with cold *vinegar and water*, experienced, soon afterwards, a great sense of constriction in the inferior part of the chest, with retraction of the hypochondria, difficult respiration, and acute fever. He died in a few days. On dissection, the right wing of the diaphragm, and a portion of its tendinous centre, were found very red and swelled: the lungs were soft and flabby, as in the commencement of gangrene.

In two patients, who died of apoplexy, succeeding retroceded gout, the same author found, in the lateral ven-

tricles of the brain, two white concretions of considerable hardness. For various organic lesions of the heart resulting from misplaced gouty action, we refer to M. Portal's *Medical Anatomy*, vol. 3. p. 19.

§ 27.—*Morbid Chemistry of Gout. Concretions in the Joints.* Speaking generally, these have been found to consist of uric acid and soda. But as great diversity obtains in *urinary* calculi, so the same may be said of *gouty* concretions. Vauquelin has found them composed of urate of soda, urate of lime, phosphate of lime, and a small proportion of animal matter. On the synovial liquor some experiments have been made, but without satisfactory results. The gouty concretions, found in the lungs and other viscera, have generally turned out to be phosphate of lime, sometimes in combination with carbonate of the same.

Gouty Urine. M. Bertholet discovered that the urine of gouty subjects lost its *uric acid*, for some days prior to the attack, and regained it towards the close of the accession. Trampel repeated the experiments of M. Bertholet, and observes that the urine of a gouty person verging towards an attack, does not turn blue paper red; nor *during* the attack, before some critical evacuation or the deposition of a sediment in the urine.* M. Hufeland confirms the above observations; as does M. Ideler, who lays the fact down as a mean of *prognosis*; a mean, however, which we have often found fallacious—especially in chronic gout. These experiments on the urine, indeed, ought not to be

* Dr. Scudamore asserts that the pink sediment begins to fall at the *commencement* of the paroxysm of gout, while the *MEDICAL REPOSITORY*, in reviewing him, says it only takes place when the fit is fairly over. As far as my own experience goes, the rule is not absolute either way: but the French authors are evidently on the side of the *MEDICAL REPOSITORY*.—EDITOR.

tried at all periods of the day. The urine voided in the morning, and not mixed with that passed during the night, as is too often the case, should be selected; and the experiments made *immediately* after emission; since it is certain that urine will sometimes pass into an ammoniacal state, with such rapidity, as, at this moment, to exhibit acidity, and very soon afterwards, an unequivocal alkaline character. The tests ought all to be tried in simple gout, uncomplicated with other affections, which of themselves modify the urinary secretion.

Gouty Perspiration has been known to turn blue paper red; but we have known the same happen in health. M. Thenard has found free acetic acid in perspiration. It is certain, however, that the matter of perspiration from a gouty limb, has, in general, a strong odour, and which, according to Costa, turns silver black. Hoffman remarks that a man, subject to gout in the extremities, wore a ring on the finger composed of mercury, sulphur, and tutty. For some days previous to an attack of gout, and also during the accession, the ring became black, but regained its original colour as the fit drew to a conclusion.

§ 28.—*Causes of Gout.* In developing the *causes*, we, in a great measure, anticipate the *prevention* of gout. We will not repeat here what we have said respecting the influence of age, sex, seasons, &c. But we may add with Cullen and Barthez, that certain forms of body very commonly announce a constitutional predisposition to the disease. These are, a full and robust habit—large head—strong bones, and thick skin. Dr. Scudamore, who doubts the circumstance of the large head and thick skin, adds—“a capacious and circular chest—large, full veins—loose solids.”

1.—A humid atmosphere—easterly and northerly winds—sudden changes of temperature from heat to cold—damp and cold habitations, are causes of gout.

2.—Clothes too thin, and too free conductors of heat—scanty bedding, and consequent exposure to cold during sleep—cosmetics, and washes which suppress the perspiration of the feet or other parts—the inconsiderate use of cold-washing the feet, and of the cold bath in general—want of personal cleanliness, whereby the pores become obstructed—the application of repellents to cutaneous eruptions, and astringents to the piles, may be rather considered the *auxiliary* than the principal, or substantial causes of gout. These last are to be sought under the following heads.

Viz. 3.—Full diet—particularly of animal food—the intemperate use of fat and oily meats, ragouts, high-seasoned and salted viands, and all kinds of aliment of difficult digestion—the abuse of vinous, spirituous, and fermented liquors. Scaliger and others accuse *cheese* of disposing to gout; and the same has been said of certain kinds of wine, particularly light wines, as *Burgundy*, champaign and those of *limy* soils, as of Candia, where, according to Alexander Benedict, the healthiest strangers are soon attacked with gout, if they indulge in the wines of the Island. Musgrave asserts, that previously to the employment of *lime* as a manure, in Devonshire, gout was a rare disease there; but that it multiplied in proportion as lime was used in agriculture. In this country, champaign peculiarly predisposes to, and excites gout; and the more potent ales have the same effect.

4.—In general, the excretions are remarkably languid for some time before the gouty attack. There is constipa-

tion—the abdominal viscera perform badly their functions—the urine is more or less pale or discoloured.* The functions of the skin are singularly defective the peculiar secretions of the feet, arm-pits, &c. are diminished. Dessault, who paid great attention to this subject, believed that *diminished perspiration* was one of the principal causes of gout. To these may be added, the failure of an *habitual* sediment in the urine. Hundertmark relates the case of a man who, from infancy to his 45th year, made water of a whitish colour, and with a mucous and chalky sediment. He became afflicted with gout soon after these characters of the urine disappeared. Veussens knew a similar example. Every one knows that the suppression of an habitual hæmorrhage, or medicinal evacuation, as periodical blood-letting, issues, &c. may prove exciting causes of gout among the predisposed.

5.—A sedentary life, especially if it succeed one of activity—as a change from a naval or military life to the *otium cum dignitate* of half-pay†—violent and unaccustomed exercises—the abuse, and the too early use of Cytherean pleasures—onanismus—severe study, especially late at night, or immediately after meals—all these prepare the way for, or excite gout.

6.—Nothing more strongly determines a fit of gout among the predisposed, than violent passions of the mind. Stahl instances cases where the effects of terror, and also of anger, were so sudden in exciting a paroxysm of gout, that the patient could not walk, but was obliged

* Dr. Scudamore says that the specific gravity of the urine is increased beyond the standard of health.

† Government charitably takes care that the *retirement* from public service shall not operate *generally* in the production of gout. Retirement from *private business* is much more likely to do so! EDITOR.

to be carried from the spot to his bed. Inquietude of mind, sorrow, and all the melancholy emotions of the soul, conduce, in a very eminent degree, to the production of gout; probably by the derangement of function which they occasion in the digestive organs. Profound meditation is still more powerful in this respect. Van Swieten knew a mathematician, of temperate habits, but hereditarily predisposed, who could at any time bring on a fit of gout by solving a difficult problem.

Pope Gregory the Great, one of the most temperate men of the age he lived in, and of an apparently sound constitution, but given, without relaxation, to the most severe studies, and intense application, suffered during thirty years from gout; in fact, the greater number of his works were written with two fingers, the only ones which gout had left him the use of!

7.—*Causes of misplaced Gout.* The causes of misplaced, are those of regular gout, joined to a general debility of constitution—to a *derangement of some particular organ*—and to those circumstances which have a tendency to produce disordered function or structure of internal parts. The most frequent causes of *repelled*, or *retrocedent* gout, are—the application of astringents or *cold* to the gouty swellings of the joints—keeping the feet too warm—putting them into water too hot—internal irritation from injudicious medicines—blood-letting from the arm during a paroxysm. *Spontaneous retrocedent gout* generally results from the existence of some *internal disease*, to which point of irritation the gouty action is drawn from the joints. This *translation* is often accelerated by particular circumstances, as atmospherical vicissitudes—the sudden announcement of bad news, and, in general, by any vivid, but at the same time, painful mental emotion.

Various other causes, predisposing and exciting, have been, and will hereafter be mentioned under different heads, and which, to avoid tautology, we omit here. We may be permitted, however, to state, in this place, that gout has been known to transport itself suddenly to the brain, (in the predisposed) from the simple excitement of snuff; to the stomach, from a long continued use of bitters, administered for the very purpose of curing the disease; and from a sudden change of full to spare diet. Finally, a gouty female becoming pregnant, is, from this very circumstance, more liable to uterine affections, which ordinarily terminate in abortion, generally in the third or fourth month of pregnancy.

Recapitulatory view of the general causes of Gout. Let us now endeavour to combine the various scattered causes into three principal classes, viz. 1. A hitherto unexplained state of *predisposition*. 2. Derangement in the functions of *digestion and perspiration*. 3. Debility.

Under the *first* head must be ranged, not only those *hereditary* transmissions, but those organic qualities which constitute a predisposition to gout. These organic qualities, it is true, are unknown in respect to their essence, but they frequently reveal themselves in those forms of body which we call *Gouty*; in the state of the urine, &c.

The *second* order of causes, *derangement of the digestive and perspiratory processes*, includes every thing which can break the integrity of these functions.

The *third* order, or *debility*, may spring from any or all of the circumstances previously detailed.

On a careful survey of the foregoing causes, predisposing, preparatory, and exciting, the effects of which, all centre in derangement of the *digestive* and *perspiratory* functions, we shall immediately perceive that a man in a

state of real *plethora* presents this *double lesion*, of which indeed the *plethora* is the infallible result, and, as it were, the expression. Hence too, we shall plainly see, that the various causes of gout may be comprehended within the three words, *Predisposition, Plethora, Debility*.*

§ 29.—*Distinction of Gout.* On this head we shall confine ourselves to the distinction between Gout and Rheumatism. It appears to us that few of the distinctions laid down by even the best writers, between the two diseases in question, will bear the test of practical examination. Heberden, one of the most illustrious physicians of modern times, observes—"in *Gout*, the first attack is confined to the first joint of the great toe; which is not the case in *Rheumatism*." But this only applies to regular gout in the joints, and will not distinguish the wandering species from Rheumatism. An hundred authors have said "Gout is hereditary; not so Rheumatism." This will not hold good; for we frequently see the children of gouty parents escape gout, while the offspring of Rheumatic parents are martyrs to Rheumatism! Again, it has been said "derangement of the digestive functions precedes gout; whereas the pains of rheumatism are ushered in without any premonitory symptoms." This is perhaps one of the least objectionable diagnostic marks. Nevertheless it is far from being infallible; for *acute* rheumatism is not seldom, like most other acute diseases, preceded by general indisposition, of which stomach derangements

* Under the head of *Ratio Symptomatum*, in Dr. Scudamore's invaluable treatise on gout, will be found a remarkable coincidence, and consequently a corroboration of the above doctrine. After discussing the point of predisposition, hereditary or acquired, Dr. S. expressly alludes at p. 141, 2d ed. to "a *redundant* circulation existing, with a relative *debility* of vessels."—EDITOR.

very often make a part ; while on the other hand, wandering gout frequently sets in without any preceding derangement of the digestive organs. It has also been said, that in *Gout* the pain always precedes the swelling ; whereas in Rheumatism, they take place simultaneously. But let it be remembered, that in wandering gout there is often no swelling ; and, in fixed gout, no pain. Besides, this distinction, allowing it to be correct, can only relate to gout in the joints. Another distinction is this : in gout of the extremities, and even sometimes in misplaced gout, the pain exists in a single point, like a sting more or less deeply plunged in ; while in Rheumatism, the pain is more spread, as it were, and embraces the whole of the part affected. This mean of diagnosis, though preferable to most of the others, is not, however, infallible. Various other distinctive marks have been laid down ; but they are so evidently fallacious as to be unworthy of notice.

What then are the differences between Gout and Rheumatism, and the means of distinguishing them ? These must be sought in the causes and other attendant circumstances, rather than in the diseases themselves. The cause of Rheumatism is very generally severe cold applied to the body ; whereas gout is the result of a great variety of causes. Haygarth reports that of sixty-eight patients affected with Rheumatism, sixty-four traced their complaints to cold ; and the other four to inebriety, where there can be little doubt of their exposure to the same cause. This is in unison with the observations of Chesneau, Leidenport, Stoll, and all our best physicians.

Nevertheless we every day meet with examples of gout and of Rheumatism resulting from a *combination* of these causes ; and so, in truth, do we see *Rheumatic Gout*, as well as *Gouty Rheumatism*, mixed affections, whose cha-

racters partake of both diseases, and whose treatment requires correspondent modification.*

§ 30.—*Prognosis of Gout.* Under common circumstances, the first attacks of *regular acute gout* will last a fortnight or three weeks, sometimes longer, without any sinister consequence. The cessation of stomach complaints, and still more the return of sound refreshing sleep, may be regarded as presaging the termination of the attack.

The duration of *chronic gout* is much more uncertain, as it is liable to great irregularity, and to assume the character of *wandering gout*. There is reason also to apprehend its becoming *fixed*, the supervention of contractions or ankylosis, of concretions or nodosities. Here the prognosis should be guarded.

In *misplaced gout*, the prognosis is unfavourable, in proportion to the importance of function which the organ affected is destined to support, and indeed is unfavourable in all cases, till the gouty action is brought back to the ex-

* Dr. Scudamore justly remarks that Gout and Rheumatism are not so much to be distinguished by any one mark, as by a concurrence of circumstances. In gout, particularly first attacks, there is seldom more than one part affected, or one part at a time; and this solitary disposition of gout is, he thinks, a striking diagnostic. The remissions from pain and fever, during the day, are more distinct in acute Gout than in acute Rheumatism, according to this author. But we may remark, that of all distinctions in diseases, the *Plus and Minus* are the most fallacious and difficult. Among the prominent distinctive characters in gout, Dr. S. enumerates the serous effusion in the cellular membrane yielding a pit to the finger—a turgescient state of the neighbouring veins—the intense pain accompanied by extreme sense of heat, and violent throbbing. The acute sensibility of the parts to the touch, with sense of weight, numbness, and total disability. *Desquamation* of the cuticle is very rare in Rheumatism.—EDITOR.

tremities. It is, we repeat, always sombre, because retroceded gout in this state of translation, possesses such *mobility*, that although it shall appear this minute, as a slight colic, in the next, it may transport itself, all at once, to the organs in the chest, or to the brain, and there snap the thread of life, in defiance of all our efforts. *Quæque ipse miserrimus vidi!* Advanced age, accidental debilitation, or painful mental emotions, lend a terrible impulse to these melancholy terminations!

The prognosis in *latent or masked gout* ought to be delivered with the greatest reserve. We met, in the course of last Spring, with a case of gouty inflammation of the lungs, which, when apparently conquered, the patient being, during the day, entirely free from fever, oppression, cough, &c. returned treacherously in the night, under the shape of a most violent paroxysm of convulsive asthma, which did not give way till acute pain seized the whole length of the shin bone. It ought also to be borne in mind, that *internal* or misplaced gout will frequently observe a march of accessions, like gout in the joints; and consequently we must not always flatter ourselves that we have seen the termination of the disease, when perhaps we have only a deceitful calm, to be succeeded by a more violent attack.

It is rare that we can safely prognosticate an approaching translation from an internal part to the joints; but supposing this fortunate transformation has taken place, it ought never to be forgotten, *that gout, though returned to the extremities, may leave traces of its existence in the organ recently invaded, which traces, notwithstanding a temporary appearance of amelioration, may terminate in death, at the very moment when we are congratulating our*

patient on the lucky transposition of the enemy from a vital part to a joint!

As to wandering, irregular, imperfect gout, in persons not very far advanced in life, who are otherwise sound, and who are submissive to regimen, the disease may continue many years without inducing much danger, particularly when moderate in a degree, and principally confined to the muscular and nervous systems. On the contrary, in a man who gives himself up to excesses, who is harassed with care or inquietude, who is exposed without shelter to the inclemency of the seasons, who is predisposed to any other disease, who carries in his constitution the germ of an organic derangement, and particularly where the gouty attacks are violent, it may become *visceral and mortal* with a fearful facility.*

§ 31.—*Nature of Gout.* It is a truth equally indubitable as humiliating, that a large volume might be filled with the erroneous opinions which have been entertained on the subject of gout alone! Nevertheless, at the risk of adding another page to this book of errors, we shall venture to make some reflections, and hazard some views on the subject.

We have had occasion to remark, what indeed has been noticed by the most accurate observers, that the functions of *digestion* and *perspiration* become deranged some time

* To the above we may add the following prognostics from Dr. Scudamore. Favourable signs, visceral organs sound in structure, and not materially troubled in function, cessation of sympathetic fever, return of appetite, urine ceasing to deposit sediment, nervous system becoming tranquil, inflammation abating, and not shewing much disposition to transference, *feces* recovering a healthy character. *Unfavourable symptoms*, the reverse of these.

prior to the invasion of gout. The *excretions* languish, and a state of fulness of the blood-vessels is the result. The *secretions*, also, are deranged in various ways. Now we know that the *lymphatic or absorbent system* performs an important part in these operations of the animal economy; and we may be permitted to conclude that this system is principally affected, or at least principally engaged in the disease under consideration.

We see that gout, though most frequently attacking the muscular system, is by no means confined to that alone; but invades tendon, ligament, perisosteum, serous, synovial, and cellular tissues, cartilage, and bone itself. When we see, then, that it attacks one or all of these parts, separately or collectively, but not exclusively, it is reasonable to conclude that it does so through the medium of *another system*, which enters as an elementary part of each—a system of vessels which surround and penetrate the joints—spread themselves over the fibrous, serous, and synovial tissues—dip into the periosteum and bone; and which serve for the purpose of nutrition in all these parts—and for those multiform secretions and excretions performed therein; for we are not to view the *lymphatic vessels*, as merely the system of *absorbent* vessels, but in the extended sense above-mentioned. Musgrave and Hoffman have come to nearly the same conclusion. We believe, indeed, that the phenomena, presented both in regular and irregular gout, can be better accounted for in this way, than on any other principle. To what other system of vessels can belong a disease, *mobile as a nervous affection*, and which, in its mutations and transformations, presents all the varieties, and combines all the features of both spasm and inflammation?

Under the influence, then, of those causes which have deranged the functions of *digestion* and *perspiration*, and

given rise to a state of fulness of the blood vessels, certain matters destined for excretion have not been thrown off—consequently the lymphatic system remains gorged with these materials, which become a source of irritation wherever they are deposited—and, in short, produce GOUT.*

The laws of predisposition determine these irritations to certain parts rather than to others; as to the joints, in *regular*, and to various other points, in *anomalous* gout.

These irritations having developed themselves to a certain extent, assume sometimes the form of *inflammation*, sometimes that of *spasmodic* affection; attacking, in preference, the *white fibrous tissues* of the human frame, but occasionally all the other tissues and structures of the body; and that with such a remarkable character of *mobility*, as cannot be explained on any other principle than the agency of the *lymphatic system*.

Now, although this *mobile* inflammation or irritation, denominated GOUT, succeeds a derangement of the digestive and perspiratory functions, and the *plethora* which thence results; yet, its manifestation in the *predisposed* organ or part, is preceded by a *debilitating action* of some kind.

Gout then being the consequence of a *plethora*, the superfluous matters must be evacuated; and if the organs necessary for their expulsion, are unequal to this office,

* There is some analogy between this theory of the Continental writers and that of Dr. Scudamore. “A copious appearance of the pink or lateritious sediment, which is to be taken in connexion with an *increased excretion of other animal principles*, is an indication that the kidneys are secreting from the blood much *unassimilated matter*. I consider that we are to view this preternatural secretion of the kidneys at once as the *sign* of disease, and as a salutary process which Nature is performing, to relieve an *overloaded* and faulty state of the circulation of the liver and the organs associated in its functions.” *Treatise on Gout*, p. 139.

a deposition must take place somewhere. These expulsions and these depots will be effected at points more or less distant from the vital organs, according to the force of the vital energy; and the same engorgements and concretions which, at first, are *consequences*, may, in their turn, become *causes*, and convert a *mobile* into a fixed affection, by soliciting the return of gouty inflammation on the irritated points, according to a well known law of the animal economy:—*ubi stimulus ibi affluxus*.*

§ 32.—*Treatment of Gout*. A mere list of the remedies which have been employed against gout in ancient and modern times, would fill an immense volume; and it would present a mass of inefficacious, dangerous, ridiculous, or monstrous medicines!

We shall not enumerate all the pretended *Specifics* for gout, nor give credence to the numerous certificates, or even oaths from respectable and disinterested people, by which they are accompanied. These kinds of proof can make no impression on the mind of the medical philosopher, who knows that the attestations and oaths in favour of a medical fact are always more *imposing and numerous* in proportion as the fact itself is *false*; and that the number

* The Continental writers support their theory with great ingenuity, and illustrate it with much talent and effect. But I am unwilling to occupy that space with hypotheses, which may be much more usefully filled with practical information. The latest and the best writer in our own country, only changes some terms, and comes very nearly to the same point as Guilbert and Hallé.

“We are now brought to the general conclusion, that gout is a disease depending upon a *redundancy* of blood with relation to the powers of the circulation, particularly affecting the system of the vena portarum, and the consequent functions of the liver; together with the production of a *morbid change in the products of the alimentary canal, and of the kidneys in particular*.” Scudamore.—2d Ed. p. 141.

of infallible *specifics*, and the *evidence* in their favour, multiply in exact proportion to the *incurability* of the disease!*

§ 33.—*Empirical treatment of Gout.* Of the anti-arthritic specifics, some are external, others internal. The topical applications, of which the former are composed, are, in general, dangerous in gout of the joints. Many of them are of an astringent, oily, or opiate nature, and far from harmless in their effects. The greater part of Practitioners, with Stoll at their head, reject the use of topical astringents. Examples of their bad consequences are unhappily too numerous! Thus Pliny informs us, that Agrippa being cruelly tormented with gout in the feet, plunged both legs into hot vinegar, and the loss of feeling and motion in the limbs was the result!

Stoll condemns the application of any *oily* substances to parts affected with gout. Duret relates the case of a Prince of Namur, who lost the power of walking, from the injudicious use of oil of wax to his gouty feet. *Opiate* applications are very generally attended with bad consequences. Barthez states numerous examples, where even a small proportion of anodyne substance in the topical application did much harm.

Even simply emollient applications to gouty joints, particularly the emollient poultices, are only serviceable in certain cases; and when too long continued, leave permanent swellings of the part. Baglivi remarks the same; so did

* How applicable is this admirable passage to the whole list of Quack Medicines! Do we see a single certificate from Bishop, Lord, or Esquire, of bark curing an ague, or mercury Lues? But on the other hand, can we take up a newspaper without seeing testimonies from the above mentioned sources in proof of medicines the most inert, or the most poisonous, effecting *impossible* cures?

Barthez, who justly observes that, of the emollient topicals which we employ in gouty pains, those should be chosen which help to dissipate gout by local perspiration. Of this kind is the following celebrated one.

§ 34.—*Pradier's Cataplasm.* The registered composition of this remedy stands thus. Take Balsam of Mecca six drachms, Red Peruvian Bark one ounce, Saffron half an ounce, sage an ounce, sarsaparilla an ounce, rectified spirit three pounds. The Balsam of Mecca is to be dissolved separately in one third of the spirit, the other ingredients being macerated for 48 hours in the remainder. The two liquors are then to be filtered and mixed together. When wanted for use, this tincture is to be diluted with two or three parts of lime water, and as a precipitate takes place, the bottle is to be shaken when the contents are poured out. A poultice of linseed meal is now to be prepared in sufficient quantity to envelope the foot and leg up to the knee. It should be of a good consistence, and spread an inch in thickness, on a napkin of proper size. If both feet are affected, it requires about three pounds of linseed meal. When the poultice is spread even, and ready for application, about two ounces of the abovementioned liquor is to be diffused over the surface of the cataplasm, and then the foot and leg are to be immediately enveloped with it, and over all another covering of flannel, secured by a roller. It is not to be changed for twenty-four hours.

The employment of this remedy would probably have yet remained uncertain, had not such distinguished physicians as M.M. Hallé, Nysten, and Chaussier, undertaken the appreciation of its merits. We shall state the result of these gentlemen's and our own experience on this point.

The first, and the almost immediate effect of the cata-

plasm is to induce a kind of calm. It appears to act as a *prolonged* warm bath on the limb. Should the patient have been greatly harassed with agitation and want of sleep, the restlessness is tranquillized, and sleep generally ensues. On awaking, he reaps the fruit of the repose which he has enjoyed. He finds himself much more at his ease. "If," say Hallé and Nysten, "*the remedy has been applied at the very height of the paroxysm, a speedy moderation of pain and sleep are the usual consequences.*"

On removing the poultice, the skin appears soft and moist. The integuments on the sole of the foot (or palm of the hand, if the remedy has been applied to the upper extremity) are wrinkled; and a humid, whitish exudation obtains, as well on the surface of the limb, as on that of the poultice. On scraping the skin gently with the back of a knife, the exudation appears deeply accumulated in the pores. It is thick, white, and somewhat resembles suet softened before the fire. It is formed of the scarf-skin detached and broken down by the poultice. In the course of the subsequent applications, the exudation becomes more humid, and if they are continued, it changes into a watery discharge more or less abundant, sometimes profuse. The same phenomena, but not in so marked a degree, have followed the application of the poultice, leaving out the aromatic tincture. A similar process has been tried upon *sound* limbs, with this difference of result, that from the *gouty* exudation a much more nauseous odour was found to arise, than in the opposite circumstances. We ourselves have frequently observed a most singular fœtor to issue from these poultices; and what is worthy of remark, an evident amelioration of the symptoms invariably succeeded the extrication of this fœtid gas. In a case of

gout, which we lately treated in the manner now described, this fœtor developed itself on the eighth application of the poultice, and this was the epoch of the first notable amelioration of the symptoms. The fœtid exhalation continued on the ninth, tenth, and eleventh poultice; then disappeared. This peculiar odour we have heard compared, by the mother of a family, to that which exhales from the beds of infants, when the clothes are much soiled with alvine evacuations. In two other gouty subjects, the fœtor did not appear till after a great many applications of the poultice; but then corresponded exactly with the period of mitigation.

Another effect of these cataplasms, and which has been well described by Hallé, is a pain, with sense of burning heat, in the sole of the foot or heel. This effect is produced by the application, whether the limb be gouty or sound; but does not result when the aromatic tincture is left out. These are the words of M.M. Hallé and Nysten, in their Report to the Minister. "This pain often takes place, during the second or third application, in the sole of the foot or heel, but without redness, spot, or any external sign of inflammation. When, indeed, the pain is very severe, it usually occasions a tumefaction of the part, and then the skin on the side of the foot is sometimes a little red. This pain is, in some individuals, more distressing than that of the gout itself; but it may always be prevented or relieved, with certainty, by the interposition of a piece of fine linen or muslin, folded once or twice between the poultice and the *sole of the foot*. The pain, however, is often slight, or consisting only in a disagreeable sensation, with heat, throbbing, or pricking of the part. Some patients, though few in number, never complain of it at all. When the application is made to the upper extremity,

the same kind of pain is felt in the palm of the hand. Its seat appears to be the fibrous tissue dispersed among the cellular membranes of these parts." *Rapporte de M. Hallé*, p. 8—9.

There are some other effects of the same remedy, which may be considered as *consecutive* of the foregoing. These are, weakness and wasting of the limbs, resulting probably from the copious exudation abovementioned; tenderness in the soles of the feet, rendering pedestrian exercise incommodious; and finally, in some individuals, after the two or three first applications, a degree of agitation, restlessness, and sometimes an increased activity, which causes a more rapid digestion. The last we are tempted, with M. Chaussier, to attribute partly to the absorption of the aromatic tincture from the cataplasm; *and partly to the sympathetic acceleration of various internal functions consequent on increased perspiration.*

Such then are the common effects of this remedy, both in health and in the gout; but before detailing the exclusive effects in the latter case, we may once for all state that, from a much less complicated tincture, the same phenomena will result; hence the following practical observations have been drawn, not from Pradier's cataplasm alone, but also from analogous applications; for instance, the same Linseed poultice with compound tincture of Gentian, instead of the Complex Aromatic tincture.*

Suppose *regular* gout is hovering about, and threatening the patient, the effect of these cataplasms will be to pro-

* We observe Pradier's remedy sold near Covent Garden at a guinea a bottle! We can assure our readers that a much simpler remedy will be a very good substitute.—EDITOR.

voke and realize the attack. In these cases, says Hallé in the report, the first application rarely, the second often, but the third generally induces the developement of gout in the foot of the extremity poulticed. The duration of the attack thus provoked is shorter than it would otherwise be; and this is the case whether the poultice be applied previously to, at the beginning of the attack, or in the height of the paroxysm.

From this it is evident that the remedy may be employed with advantage in *chronic* and *irregular* gout, whereby the fits may be shortened, and the gouty action determined completely on the feet. To this effect many of the observations in the report tend, and many cases confirm the position. But, on the same principles, these poultices would be improper in those gouty attacks, where the inflammation runs high, with a great determination of blood to the parts. So in *fixed* gout, where organic injury of the bony extremities is threatened, the remedy would be plainly inappropriate.

In *retrocedent* gout, as the great object is a quick restoration of gouty action to the joints, and, as Pradier's remedy does not produce this effect, in general, till the developement of that peculiar pain which we have described, and which requires an average of seventy-two hours; it follows that a mustard poultice, or other very stimulating application, should be first employed to invite the gouty irritation back, and then the cataplasm would form a valuable mean of *keeping it there*. Or the two means might be combined; thus while sinapisms are applied to the knees, Pradier's remedy might be applied to the feet.

Without any view of detracting from the credit of the remedy, but rather to corroborate its utility, we shall shew that it is far from being a new proposition. Without

dwelling on the cataplasim of Celsus, (the roots of the hibiscus boiled in wine,)—the tonic-emollient cataplasim of Riviere (bran meal boiled in wine, with the addition of brandy and butter,)—the poultice of the Breslau physicians, by which so many were cured—the stimulating cataplasim of Alexander Trallien (fœnugræc, honey, wine, &c.) under the use of which, by the by, the peculiar pain in the soles of the feet, seems to have been noticed—*At si æger dolorem, quum cataplasmata imponuntur, immoderatum esse intolerabilem dicat, necesse est tunc, &c.*" we come to Musgrave, who was in the habit of employing a tincture almost exactly the same as Pradier's. Take quick lime half-a-pound, dissolve in 24 pounds of water, and boil down to twelve. To the liquor poured off clear, add sarsaparilla, China, sassafras, of each three ounces. Infuse in a sand-bath for a night, and to the strained liquor add an ounce of the tincture of orange peel. This mixture was applied externally, and taken internally.

But, as before observed, the compound tincture of gentian, with a linseed poultice, has produced all the general and particular effects of Pradier's form, under our own eyes.

It ought, however, to be borne in mind, that as a large surface of skin is here exposed to heat, moisture, and inordinate perspiration; and as some degree of weakness and emaciation of the parts is the necessary consequence; it would be prudent to graduate the size of the cataplasim, according to the vigour or age of the patient. This we have done, and with satisfactory results. Another precaution, which both M. Hallé and Guilbert recommend, is, the application of an unctuous substance to the limb, immediately before the poultice is laid on. This not only restrains the absorption of any heating material from the

poultice, but obviates that chill which the patient is liable to, if great care be not taken, when the dressings are changed.*

§ 34.—*Paulmier's Remedy.* Paulmier was a well informed physician, and although he thought his remedy was often of itself sufficient, he did not fail to employ other means when indicated.

This remedy, which we ourselves have tried with success, is no other than leeches applied to the parts affected with gout. Paulmier is very particular respecting the selection of these animals. They should be healthy, middle-sized, with small heads—having gold-coloured stripes on the the back. The small, round, and black leech he rejects. They should be put on the moment that any redness or swelling appears, and repeated without fear, till all the symptoms of gout are dispersed—and, in particular, till the pain shall have ceased, or become greatly mitigated. The number must vary, according to the extent and intensity of the local affection. Paulmier has applied twenty, thirty, or even more the first time, diminishing the number as the symptoms subside. The bites are allowed to bleed freely; but the flow of blood is not to be solicited by putting the feet in warm water. A troublesome itching, he remarks, sometimes takes place where the leeches had fastened, and may be regarded as the faithful messenger that announces the entire cessation of the attack.

* "I have found great cause of satisfaction in the occasional use of a simple poultice, made with bread which has been scalded with boiling water, pressed almost dry, and again rendered of sufficiently soft consistence by means of the lotion which I shall presently describe."—*Scudamore on Gout.* This lotion is composed of *one third spirit*, and two thirds camphor mixture. Now I conceive, that a poultice thus constituted bears a very great analogy to Pradier's remedy, so ably put to the test by the French Commission; and I think it highly deserving the notice of the British Medical world, under the judicious restrictions laid down by Guilbert and Hallé.—EDITOR.

It has been objected, that local weakness sometimes succeeds the application of leeches. In reply, Paulmier observes, that the attack of gout itself is followed by debility of the parts—and that to a much greater extent than after the employment of leeches. He relates eight cases where this plan was pursued with the happiest effects. One instance was in his own person. At the age of seventy-four, and afterwards at the age of seventy-eight, he experienced attacks of inflammatory gout on the toes and knees. He was cured by reiterated applications of leeches. The bites of the leeches being healed, he was able to walk, in four days, as well as though he had never been affected with gout.—He pretends to no discovery, but follows the precepts of the ancients, particularly of Cœlius Aurelianus.

§ 35.—*Eau Medicinale*. This is still a secret. It has been conjectured to be the tincture of hellebore, of colchicum, of gratiola; but chemical analysis does not support these suppositions. It is sufficient for us to know, that it acts as an evacuant, generally as a drastic purgative. Such means have sometimes succeeded in gout, but more frequently they have proved hurtful. The most favourable report which we can make of the *Eau Medicinale*, may be conveyed in the words of Areteus respecting hellebore; “*podagricis veratrum mirificè: sed in primis morbi invasionibus succurrit; quod si multis jam annis inveteravit, vel a majoribus per successionem descendit, ægrotum ad mortem usque comitatur!*” In other words, we conceive that a man who has been affected with gout but a short time—who is yet young, strong, possessed of firm powers of resistance, and whose organs are all sound in structure, and free in function—such a man, we say, may occasionally turn to his advantage this powerful medicine. We shall not enumerate the injurious, or even fatal effects of the *EAU*

MEDICINALE—they may be found scattered in the medical annals of England, where the remedy is yet in vogue.

After eulogizing the plan of Dr. Kinglake, Rees's *Cyclopedia* informs us that "*no untoward circumstance whatever has yet occurred, in consequence of the speedy removal of the paroxysm,*" by the *Eau Medicinale*! But mark the change in a very few years. "The credit of the *Eau Medicinale* appears now to have declined so universally, that any laboured exposure of this *baneful nostrum* might appear unnecessary."—*Scudamore's Treatise*, 2d Ed. 204.

It would appear that the *vinum Colchici*, as prepared according to Sir Everard Home's directions, is possessed of all the anti-arthritic powers of the *Eau Medicinale*, but divested of its noxious qualities. Now granting this to be the case, the remedy is not a whit the safer; because the danger consists in the *sudden arrest* of the gouty action or irritation, by means of which Nature was warding off disease of an internal organ. And we assert, from repeated observation and dissections, that whenever either Gout or Rheumatism, when constitutional, is *suddenly checked*, by whatever means, an irritation, or chronic inflammation, will sooner or later be transferred to some vital or internal structure, and there tend more to curtail the range of existence than the original malady. Among the effects of these near-cuts to ease in gout are, palpitations of the heart, rushings of blood to the head, indigestion, chronic hepatitis, &c. These can only be cured by improving the state of the digestive organs, and inviting the gouty irritation to an external part, by means of an issue, small blister, &c.*

* "This," says Dr. Scudamore, "cannot be said of the *Eau Medicinale*, wine of *Colchicum*, &c. They do, in most instances, for a few trials, influence the local symptoms very speedily; but so far from removing

§ 36.—*The Remedy of Held.* This is the Peruvian bark administered in full doses. Sydenham had suggested the same. Held employed the bark with remarkable success; and does not hesitate to consider it as much a specific in gout, as mercury is in the venereal disease. In a paper by Alexander Small, in the *Med. Obs. and Enquir.* many facts are brought forward in corroboration of the above; among others he relates his own case, wherein he had recourse to the bark, in doses of two drachms every two hours, till two ounces were consumed, by which means he was completely freed from fever and gout.

To the great astonishment of the Spanish physicians, Lemnos and Tavares, who seem to have known nothing of Small's publication, a surgeon-barber cured a very violent attack of gout, under their eyes, by administering, first, a purgative, and then bark in doses of a drachm every hour, till two ounces were swallowed. Doctors Lemnos and Tavares repeated this experiment in numerous cases of gout, and with success. Alph. Leroi, who has translated the work of Tavares, pursued the same method of treatment in a great variety of cases, combining with it Paulmier's application of Leeches to the gouty parts. Upon the whole, this mode of treatment is worthy of further investigation and trial.

Methodic or regular Treatment of Gout. Attack of re-

the cause of Gout, they leave the disposition to the disease much stronger in the system, and lead to the still more calamitous, because more constant pains of the chronic form of the disease. I have had abundant opportunity to know that each of these medicines, sooner or later, disappoints the patient of his expected cure, rendering merely palliative assistance, and keeping off the disease for a time only, so that it is left to prey on the constitution with more lasting and serious ill effects.”
—2d. Edition, p. 198.

gular acute gout. We shall consider this species as *impending—at its commencement—at its height—and in its decline.*

§ 37.—*Impending.* When the precursory signs of gout begin to reveal themselves, if the patient call the goddess of health to his assistance, she will counsel him to studiously guard against *cold* and *moisture*—to clothe himself a little warmer than usual—to refrain from gross, oily, indigestible food—to eat sparingly of plain, light victuals—to keep up, by all means, the various excretions—particularly that from the skin—to regulate his exercise and sleep—to renounce *late hours*, whether passed in study, labour, or company—to endeavour to keep his mind tranquil and unruffled by the blasts of passion.

As a fur is now generally observable on the tongue, indicating some stomach derangement, a very gentle emetic of Ipecacuan is occasionally serviceable, and the bowels should be kept soluble with mild purgatives, as Electuary of Senna with Sulphur, or other analogous preparation.

If, on the other hand, the patient be weak, and his complaint has not been brought on by excess in spirituous liquors, it may be prudent to indulge in a little wine, to take some light bitter, and use a moderately generous diet. By these means, a proper direction will be given to the fit, and the internal organs will be preserved from danger.

§ 38.—*Commencing.* Suppose the attack has actually commenced; repose—some gentle diaphoretic conjoined with a saline draught, abstinence from all occupation of mind or body. *Although there may, at this time, be some degree of hardness in the pulse, with fur on the tongue, general blood-letting and strong purgatives are to be avoided.* These are the rules to be observed when the disease is moderately developing itself on the extremities; and

admit of modification, if on the one hand there be a degree of violence, or on the other a kind of hesitation in the symptoms. In this latter case, and especially where the stomach is disordered, as it generally is, with flatulence, uneasiness, or spasm, light aromatics, ether, volatile alkali, &c. may be useful. Mean time those joints to which the gouty action is now determining itself, are to be covered with fleecy hosiery, hare-skins, or cygnet down; and, if necessary, a gentle excitement may be kept up there by emollient poultices, with a small proportion of mustard; or the spirituous poultice of Pradier before described.

In those cases, on the other hand, where the arthritic attack sets in with violence and pain, leeches, according to Paulmier's plan, should undoubtedly be employed. The application of lukewarm water is also useful. *See farther on.* Large bleedings (by venesection) from the member affected, have also been tried, and sometimes with success. Sauvages relates that Lazerme dissipated, by large blood-letting from the foot, an attack of gout in a man who was anxious to be speedily cured. Gilbert, Van der Heyde, and others, have witnessed similar facts. Many other examples are to be found in the writings both of the ancients and moderns. Aetius has a remarkable passage, concluding thus:—*sape in ipso inflammato crure, vena incisa, et multo sanguine detracto, hominem ab omni dolore liberavi.* *Serm. xii.* According to the testimony of Barthez, however, general blood-letting, even from the foot, is not always devoid of inconvenience in gout. It may even prove injurious, by the debility which it induces, and the consequent interruption which nature experiences in the midst of many simultaneous operations which she is then carrying on. Nevertheless, cases have been communicated to us, where copious, we might say excessive venesection,

has arrested at once the progress of gout; and that without any other inconvenience than a little subsequent weakness. But we dare not recommend such practice till a greater accumulation of facts shall have falsified the memorable words of Mead:—"Experience teaches us," says he, "that we must not expect to cure gout by blood-letting; the effect of which, in general, is merely to cause the disease to shift its seat from one place to another."

Monita et precepta, c. ii.

Cold in Gout. Among the strong measures which have been employed in this period and species of gout, we may enumerate the application of cold, or even ice. It has to our knowledge, in some measure, resolved and dispersed incipient attacks of gout, in young subjects, who were otherwise healthy, vigorous, and under the influence of *primary* invasions. But it has also come to our knowledge, that *subsequently* they were less fortunate; as they suffered from affections of the joints that were distressing in their nature, and both tedious and difficult in their cure. In other instances, the consequences of this method of treatment were still more melancholy. It appears that in France, Germany, England, Holland, in short throughout the North of Europe, the employment of cold in gout has done harm. In Italy and Greece it has been less injurious. Cocchi, and in latter times Giannini have recommended it. Hippocrates indeed had said;—"Tumores autem cum dolore in articulis, sine ulceratione, podagricos affectus, plerumque levat sedatque multa frigida his affusa."

A host of authors have written on this plan of treatment. Among these we distinguish Floyer, Homberg, Pietsch, Marcard, Giannini, Kinglake, and others. All the positive conclusions which we can draw from Giannini, one of the latest writers on this subject, are these, viz.

that if the patient's constitution possess sufficient energy to deliver itself by other means or outlets from the gouty action or matter,—if there exists no internal derangement, no irritable point, no weakened organ, and finally, if climate and atmosphere are favourable, this remedy may be applied without inconvenience. It will effectually lull the pain, and put a speedy termination to the paroxysm. But in circumstances different from the above, and particularly if the patient be what we may term a constitutionally gouty subject, this measure will turn against him; and the least unpleasant circumstances that may result, will be, diseases of the joints more or less serious, or contractions of difficult removal. But more frequently he will experience the formidable or mortal effects of repelled gout!*

Nevertheless there is a mode of applying cold in gout, which, in circumstances about to be mentioned, may prove very useful. When, for instance, the inflammation of the joint is acute, the determination towards the extremities decided, the patient strong, not very susceptible, and apparently proof against retrocession, we may, in order to diminish the pain, and extreme heat of which he complains, let fall slowly, and drop by drop, cold water on the inflamed surface, for a longer or shorter space of time. After this species of miniature pumping, the inflamed part

* From all that I can learn of the practice of applying cold water, the relief is never so certain as the danger." *Scudamore on Gout.* p. 249, 2d Ed.

"In two cases," says Dr. Parry, "which occurred between twenty and thirty years ago, immersion of a gouty foot in cold water, which produced instant relief of the pain, and a proportionate abatement of the inflammation, was in a few hours followed by a paralytic seizure of half the body." *Elements of Pathology.*

should be gently wiped, and then enveloped in a proper covering. This cold sprinkling, or cold drop bath, produces an immediate diminution of the pain and heat, and ultimately brings out a moisture on the surface.

Icy cold drink has also been given, as well to prevent as to mitigate the paroxysm of gout. Van der Heyde asserts that there is not a more powerful remedy for this purpose. Rondelet, Vogel, and Barthez, have witnessed its good effects. But the particular cases, in which it may be employed, are not yet determined; and many authors, among others Musgrave, speak unfavourably of the measure.

§ 39.—*Acme, or course of the attack.* If the gouty seizure has been properly treated in the beginning—and if it continue moderate in its course, there will be little else for the physician to prescribe, than abstemious regimen, repose, “*flannel, and patience.*” But if the current do not run thus smooth, we must take measures for regulating the *fever*, the local *congestion*, and the *pain*.

§ 40.—*Fever of Gout.* Whether the fever be too high, and of the inflammatory type, moderate, or too feeble, it has always a tendency to assume a slow and chronic march.

Is the Fever manifestly inflammatory? General blood-letting, particularly from the lower extremity, may be practised; but with caution, lest the determination to the joints be disturbed. After this measure, some physicians prescribe a purgative. Forestus, Mead, and Lister, afford us examples of this practice, which, in their hands, has been successful. The diet and regimen should be strictly *anti-inflammatory*, with this exception always, that no *acid drinks* be used. Musgrave has often seen violent and dangerous colics result from this accident.

Is the Fever moderate? Here, a well regulated regimen

ought to be our principal study. The patient's food should be drawn from the vegetable kingdom, in the early stages; since nourishment of the animal kind increases the pain. It should be light, taken in small quantities at a time, and, for the most part, in a liquid form. At a more advanced period, a more substantial sustenance may be allowed; as veal bouilli, chicken, chocolate, &c. always proportioning the quantum and kind to the degree of fever. To obviate that sinking or languor of the stomach, which so often supervenes in the course of the attack, some spiced panada, a very light cordial even, or a little white wine, in imitation of Mead and Sydenham, may be occasionally indulged in. These things, however, should be administered, if possible, during those remissions which periodically take place between the paroxysms, and after those *local critical evacuations* which terminate each fit.* Care should be taken that these evacuations are kept within salutary bounds, and not allowed to run into excess, or prove deficient. If, for example, the *perspiration* continue during the remission of the fever, and in immoderate degree, with thirst, restlessness, &c. it ought to be restrained by exhibiting a cooling lavement, by withdrawing all heating or stimulating food, by covering the patient very lightly, after wiping the moisture carefully from the skin, by causing him to sit up, or even leave his bed, &c.

* It may be observed, once for all, that there is a striking coincidence between the pathological views of the foreign authors and those of our own illustrious Parry. The latter considers gout as a salutary reaction and evacuation of the system, whereby the equilibrium of the circulation, and a comparatively healthy state of the various functions, are for a time at least restored. The evidence of Parry is, in itself, a host, and only requires collocation with minor authorities to annul them.

On the other hand, if the perspiration and other evacuations are manifestly scanty, they ought to be augmented by keeping the patient in bed, and comfortably covered, during the whole time of the febrile paroxysm, by administering some tepid diluent with nitre, &c. and by using frictions towards the close of the fit. To these means of determining to the kidneys and skin, Stoll recommends other measures which determine to the bowels and to the extremities themselves; such as foot-baths of lukewarm water, glysters, and even gentle purgatives, if there be no spontaneous alvine evacuation at the close of each paroxysm.*

Is the Fever weak, and imperfectly developed? Here, after the example of Thilenius, as cited by Barthez, the decoction of bark with the acetate of ammonia may be usefully employed. In cases where the urine was pale, and the erysipelatous swelling succeeding the paroxysm rose slowly, Thilenius added to the foregoing remedies, frictions with tincture of the blistering fly over the joints.

§ 41.—*The local Inflammation.* This is not always in proportion to the fever. Although the sanguineous determination to the parts affected be very considerable,

* Dr. Scudamore, who recommends purgatives in a more liberal manner than the foreign authors, gives the following form of a draught, which acts at once on the bowels and urinary organs, and from which he has experienced the most beneficial effects. Take of Magnesia fifteen grains, Epsom salts a drachm, vinegar of colchicum from one to two drachms, made into a draught with any distilled water, and sweetened with a few grains of extract of liquorice. It is to be repeated at intervals of six or eight hours, according to the freedom of its operation, and the urgency of the symptoms. This plan should be actively persevered in till the gouty inflammation subsides, and so long as the morning urine deposits a sediment. 2d. Ed. p. 187.

blood-letting from the arm is a hazardous measure. It was to this that Admiral Suffrein, the brightest ornament of the French marine, fell a sacrifice! Paulmier and a thousand others have witnessed similar effects. When therefore venesection is absolutely indicated, let it be from the lower extremity. If, on the other hand, the determination be too feeble, and the gouty matter or action be inclined to wander to other parts of the body, it is evident that they should be enticed, as it were, to fix themselves in the members, by appropriate irritations there, such as emollient mustard poultices; or the spirituous emollient cataplasm mentioned in the 33d section.

§ 42.—*The Pain.* It is from this, above all things, that the patient begs to be delivered. Patience, indeed, would probably be the best anodyne; but there are men who could bear with fortitude the *actual cautery*, yet who lose their resolution under the torture of gout. For these some solace must be provided. Among the means of soothing the anguish of the disease, without disturbing the salutary operations of nature, a local *vapour-bath* to the parts affected holds the first rank. This measure is followed by an abundant perspiration from the inflamed surface, and a tumefaction which moderates the pain. Immersion of the feet in lukewarm water, or in that in which aromatic herbs have been boiled, has often a similar effect. Boerhaave witnessed the powerful influence of *warm water aspersions* on the gouty limb, over pain. The warm skins of animals just flayed have been applied with relief. It is this remedy which Fontaine makes the crafty fox prescribe for the gouty lion :

D'un loup ecorché vif appliquez-vous la peau,
Toute chaude et toute fumante.——

To these may be added the steam of warm milk and

water, and the affusion of warm milk. See also what has been said of cold as an application.

Anodynes have been employed both internally and externally to diminish the pain of gout; but not always with success—sometimes with much inconvenience in the result. It is when combined with a diaphoretic, as in Dover's powder, that opium has proved really serviceable for this purpose.*

But both physician and patient should ever bear in mind the memorable sentiment of the English Hippocrates:—"Dolor in hoc morbo est amarissimum naturæ pharmacum: qui quo vehementior est, eò citius præterlabitur paroxysmus." *Sydenham*. *Pain is nature's bitterest remedy in this disease; but the sharper it is, the sooner will the paroxysm be over.* We must not therefore dream of anodynes, but in cases of excessive anguish; and the opiate which we always employ for that purpose, because it has constantly succeeded, is a foot-bath of water moderately warm, and impregnated with any aromatic herbs; to which we generally add half a glass of brandy or rum, in imitation of Musgrave. In such cases also the *spirituous cataplasms*, before described, may prove useful.†

* Dr. Scudamore employs opium freely at night, while the opening draughts, before alluded to, are taken in the day. "The patient being furnished with twelve pills, each containing one grain of crude opium, and half a grain of antimonial powder, may be desired to take one, two, or if pain be very severe, even three at bed-time, as the first dose, and repeat one every hour or two afterwards, according to the degree of pain; this being the only regulation as to the quantity to be employed, when no contra-indications are present." 225.

† Dr. Scudamore prefers "the free sponging with tepid water" to immersion. But this eminent physician seems to place his principal dependence on *tepid evaporation* with the following lotion, viz. one part of spirit to three of camphor mixture, applied to the parts affected

§ 48.—*Decline of the Attack.* As the paroxysms diminish in intensity, the remissions become more marked; and finally, the fever disappears, succeeded by appetite and sleep. From this period, the patient should leave his couch, and even attempt to exercise his limbs, although far from being free from pain. This is the grand mean of preventing those contractions and that stiffness which too often form the sequelæ of gout. Sydenham recommends the patient to get out of doors—at least in a carriage or other conveyance; for although the exertion may appear a matter of impossibility at first, yet he will soon find that the motion of the vehicle shall cause him much less pain than he would experience if seated in his own house. Baglivi adds, that even during the course of the attack, and when the patient is unable to take any other exercise, he should frequently throw the muscles and organs of the chest into action, by conversing, singing, or reading aloud; which precept he supports by solid reasoning, and quotes the beautiful passage of Plutarch, C. xiii. de Tarentula. The following verse of Fontaine contains a medical fact—

Goutte bien tracassé est a demi guérie.

Gout well teased is half cured.

by means of linen rags; the lotion being first rendered agreeably lukewarm, by the addition of a sufficient quantity of boiling or hot water. "The evaporation," says Dr. S. "which the alkahol alone would produce, is advantageously restrained by the dilution with the camphorated mixture." The temperature should not be too high, nor too low—between 75° and 85°. The linen compresses constantly kept wet with the lotion, should consist of six or eight folds, one laid upon another, with a slight and cool covering over all. From considerable experience, I can corroborate Dr. Scudamore's recommendation of this lotion. Indeed I find it the best anodyne to the gouty inflammation, which we can use.—EDITOR.

Towards the close of the attack, sudorific decoctions of the woods, with milk, have been usefully employed to accelerate the termination. It is, however, of importance in this last period of the disease, to watch over the critical evacuations; for it sometimes happens that these and the fever of gout cease too soon, from want of constitutional energy; and on the other hand, continue too long, at the risk of superinducing a lingering state of debility. In these cases, we have given with good effect, the bark, either alone, or in conjunction with chalybeate waters. These considerations lead us insensibly to the subject of *chronic gout*; but before closing the section, we have one important remark to make; namely, that during convalescence from any kind of gout, the patient is very liable to relapse; and that from very trifling causes. Warner remarked in his own person, and in many others, that the mere exposure to cold was sufficient to produce this accident; and still more frequently, as Cullen and Barthez also observe, that a brisk purgative at this period recalled the gouty attack.*

§ 44.—*Treatment of Chronic Gout.* A great deal of what we have said, respecting the treatment of regular acute, will apply to that of chronic gout; and therefore need not be repeated here. Our task in this place is to develop the treatment of various local swellings which embarrass us at the close of chronic gout. But previously, we shall say a few words on the management of certain symptoms, which are extremely harassing to the patient, and for the relief of which, he is incessantly appealing to

* "During a gouty diathesis, a brisk purgative will often produce acutely inflammatory gout in the knees or feet." *Parry's Elements of Pathology*, p. 372.

us.—In the course of a long and painful attack of chronic gout, complaints of the stomach are often very distressing, whether they shew themselves under the form of heartburn, loss of appetite, &c. or that general languor which accompanies stomach affections. These require the judicious administration of antispasmodics, as sulphuric ether, aromatics, &c. after which, bitters, steel, bark, valerian, may be prescribed.

A fur on the tongue, and a yellowish tint of countenance, have sometimes led to the use of drastic purgatives; but these, as we have said before, are inadmissible. Gentler cathartic medicines, especially when combined with bitters or aromatics, or with the bark, succeed better. Or we may employ medicines that unite a purgative and tonic quality in themselves, as rhubarb; or a purgative and diaphoretic, as sulphur, guiacum, &c.

As a diuretic, a decoction of burdock in beer has been much employed; but diuretics in gout, have rarely answered the expectations of the physician or patient. Nevertheless they may be employed. Stahl, in his Dissertation on this disease, *recommends to posterity*, leeches, camphor, and nitre, for the cure of gout.

In some attacks of chronic gout there is a most distressing sensation of weakness or oppression, amounting almost to the fainting of Angina Pectoris, and requiring the most powerful antispasmodics for its removal.

Many gouty subjects are most severely annoyed with cramps, which in general resist every remedial aid. A physician, who has written on the disease, informs us that, in such cases, relief has been obtained by tight bands or garters round the upper and lower parts of the arms, thighs, and legs.

Pain is not less terrible and obstinate in chronic gout,

than in the other species. Besides those physical means of appeasing this symptom, which we have already described, there are others of a moral nature which are far from being devoid of anodyne power. Indeed we have seen gouty patients who, in the midst of their cries and groans, have jumped from their beds, on the receipt of some striking intelligence, as though there was nothing the matter with them! Every one knows the story related by Fabricius Hildanus, of a man who was cured of gout by a pretended spectre that dragged him down stairs, and left him on the cold ground.

To people susceptible of its power, music has afforded considerable mitigation of pain in this disease. Barthez knew a gentleman who had the torture of a lumbago suspended for hours by the influence of music at a concert. It was by giving himself up to the most profound, almost cataleptic contemplation of philosophical subjects, that Cardan rendered himself insensible to the torments of gout.

Another kind of power over the disease, is that of pride, which makes the stoic, in a paroxysm of gout and philosophical fanaticism, exclaim, "*No, gout, thou art not an evil!*" Avoiding both extremes, the wise man will neither totally dissemble his sufferings, nor give way to querulous lamentation. He may feel the sting, but he will reflect on the necessity of obedience to the rod of affliction. Under the benign influence of resignation, he suffers with patience, and his pains are indubitably mitigated thereby :

*Durum : sed levius fit patientia,
Quidquid corrigere est nefas. Horat.*

There is no illusion in this. We every day see the anguish of disease assuaged by patience and temper,

especially in men whose courage is fixed on the basis of religion.

It is the duty of the conscientious physician, to employ all the moral means in his power for the solace of the patient committed to his charge. He will despise those, indeed, which work on the credulity of the sick man, or lead him into ridiculous measures. He will steadily object to the employment of other means which expose the patient to violent and dangerous perturbations. He will, on the contrary, pursue a strictly philosophical course, by protecting and serving him, by combating false, and instilling true notions of the disease, and by obviating those melancholy ideas arising from a distempered imagination, which cloud his judgment and damp his courage: *æquo animo naturam mali perpendat æger, neque quod per se molestum, inani metu, terrore, vel opinione reddat deterius. Profecto plurimum valet hæc medicina.*—Musgrave.

We now proceed to the treatment of those various gouty swellings of the extremities, which retard the termination of chronic, and pave the way for fixed gout. We have before alluded to *emollient spirituous poultices*, analogous to that of Pradier, as one of the most effectual applications in chronic gout. Frictions, and *shampooing* (massage) may also be usefully employed.* Exercise in a carriage, on horseback, or on foot, is always salutary, and never injurious in these cases.

* The following is the definition of *Massage* in Nysten's Medical Dictionary:—"C'est un mode de *pression momentanée* qu'on exerce avec la main sur le corps et les membres, pour exciter le ton de la peau et des tissus sous-jacens;" a kind of momentary pressure which one exercises with the hand on the body and extremities, for the purpose of exciting the tone of the skin and subjacent tissues. This is Dr. Balfour's *percussion and compression*, but directed to chronic instead of acute gout.—EDITOR.

Is the swelling œdematous, and obstinate? We may use gentle frictions with flannel, the application of warm bran, dried salt, a partial or general bath of warm air in a dry stove, which is easily constructed by means of a spirit of wine lamp, and a coverlet sustained by hoops.*

In the management of those *ligamentous* swellings and tendinous *nodosities* which too often succeed chronic gout, and also the *contractions* which result therefrom, it is necessary to ascertain whether these lesions are recent or of long standing; and whether they are or are *not* accompanied with pain. Pressavin has succeeded in removing painful contractions of the limbs by means of emollient and slightly anodyne applications—poultices of mallows and hemlock, and the internal administration of gentle diaphoretics, as decoction of China, and sarsaparilla in milk. *Painless* swellings admit of more powerful sudorifics, together with the bathing and pumping of warm mineral waters. We ourselves have seen ligamentous swellings and tendinous nodosities disappear under the use of the *spirituous cataplasm* described in the section on Pradier's Remedy.—Hallé and Nysten have seen the same; but the diseases were recent. When *otherwise*, the effect of the cataplasms is to arrest the progress of the local malady, and thus confine it within narrow limits. Would the bath of oil and salt, so warmly recommended by Mercatus for gout in the feet, or Quarin's poultice of boiled soap and camphor, be serviceable in these cases?

* "I know a gentleman of great intelligence, much subject to gout, who is partial to the use of *heated air*, as a remedy, which he obtains by burning alcohol at the extremity of a tin tube, bent in its form, and connected with a wooden cradle to be received under the bed-clothes, so that the air has free circulation." *Scudamore on Gout*, 2nd Ed. p. 246.

Stimulating liniments, charged with camphor, cajeput oil, ammonia, and turpentine, have proved useful, especially when they bring out an erysipelatous eruption on the part.*

Blisters have occasionally been applied with advantage, under the following circumstances, viz. at the close of the gouty attack, when all inflammatory symptoms were subsided, and when there was no appearance of a determination to the parts. If pain accompanied the swellings, then a few leeches or other local detractions of blood preceded the blisters, which by some are applied in the neighbourhood, rather than on the part affected. Camphor has, by some, been joined with the blistering plaister.

As to the gouty *tumour*, strickly so called, let it be remembered that it may exist under two different forms. At first, it contains a liquid, or nearly liquid substance—subsequently an earthy deposition. In the former case, Musgrave employed with success a kind of suction.—*Sunt qui succione materiam instrumento ad eam rem artificiosè facto eduxere.* With a small trocar, to which is adapted a syringe, this instrument may be easily constructed; and we are of opinion that this practice ought to be revived,

* In the permanent œdema and excessive debility sometimes left by gout, Dr. Scudamore recommends a calico or flannel roller—the employment of an occasional pediluvium, or what is preferable, the daily practice of sponging the parts in the morning with water, having a little salt dissolved in it, and at a temperature slightly tepid. The skin being wiped carefully dry, diligent friction with the hand or flesh brush should be continued till a comfortable glow in the skin is produced. Stimulating liniments, such as Tinct. Lyttæ—Linim. Camp. Comp.—Lin. Sap. C. in varying proportions may also be used. See the *Second Edition* of Dr. Scudamore's most valuable Treatise on Gout, p. 265, et seq.

and extended to all those cases where the fluid cannot be dispersed by other means. The wound left by the trocar ought, of course, to be carefully closed, to prevent the entrance of air into the space from whence the fluid has been drawn.

Where the tumour consists of *concreted substance*, the chances of removal are small. Nevertheless, Van Swieten's remedy of oil of turpentine impregnated with the fumes of muriatic acid, may be tried by way of unction on the gouty tophi. Would not Sanctorius's method be worthy of trial in these tormenting cases?—These are his words:—
“ *Ego aliquando vidi in quadam antiqua gonagra phlegma gypseum molle, liquidæ calci simile, defluxisse ad cutem, qua perforata, ita liquidum egressum fuit: quo experimento excitatus, semel in quadam gonagra, ex gypsea pituita, utens stillicidio aquarum lanarum non ablutarum, in quibus malvaviscum, malvæ et nasturtium ebullierunt, post longum aliquod intervallum aliquam portionem illius pituitæ gypseæ sub cute existentis liquidam et mollem feci, indeque illam, secta cute, evacuavi.*” *Comm. in i. F. Cap. Avic.*

It is not impossible that the gouty concretions sometimes become soft, as Sanctorius states; as they are generally composed of urate of soda, which readily dissolves in solutions of potash, and of soda, as well as in simple hot water. But the phenomenon may admit of another explanation. We have frequently seen these concretions composed of small grains in juxta-position, but very slightly adherent, so as indeed to be broken down and float away in the matter of an abscess. It is therefore probable that by frictions and fomentations they may be so comminuted, or, as it were, dissolved in fresh affluxes to the parts, as to be carried off by absorption. At all events, the operation recommended by Musgrave, as well

as that indicated by Sanctorius, might, we think, be usefully directed against a crowd of cases completely neglected in these days.

§ 45.—*Treatment of Primitive Gout.* In this species the best treatment is the best regimen. Nourishing diet, a little good wine, warm clothing, frictions, mild chalybeates, with the bark, and gentle diaphoretics, are all that can be safely recommended in this kind of gout.

§ 46.—*Treatment of Fixed Gout.* Old and hardened concretions are little within the reach of medicinal agents, and we ought to be reserved in our proceedings here.

Suppose a violent accession of gout falls on a part already charged with these concretions? According to circumstances, we would confine ourselves to fomentations, and to simple or spirituous emollient poultices. If the chalky depositions appear ready to burst through the extenuated integuments, their escape may be facilitated by a very slight puncture, with pressure on the surrounding parts. The concretion should be allowed to come away piecemeal with the poultices. But in *fixed gout*, the patient's motto ought to be the following sentence of Seneca: "*Delinimenta magis quam remedia podagræ meæ compono, contentus si rarius accedit, et si minus verminatur.*"
De vita beat.

§ 47.—*Treatment of Fixed Primitive Gout.* This disease being of comparatively rare occurrence, the rules of treatment are less defined than in most other species. The following may be selected from M. Hallé's interesting Report to the Minister of the interior:—The waters of Baresges pumped on the parts have been useful in the commencement of the complaint. Pradier's remedy has also given a greater degree of motion to the joints. We would recommend, according to age and temperament, &c. frictions—shampooing—warm air bath—blisters—cauteries

in the neighbourhood—pumping on the parts. *Internally*, gentle sudorifics—mineral waters—bark.

§ 48. *Treatment of Sciatica.* When called in at the commencement of the attack, we have repeatedly witnessed the excellent effects of a large detraction of blood from the anus and neighbourhood by leeches; followed immediately by a hip-bath of high temperature—and then a brisk purgative. Counter-irritations to the lower extremities, with the view of determining the gouty action to those parts, will also be serviceable.

In the height of the attack, purgatives, into the composition of which calomel and the resinous drastics enter, are very useful. We knew a man, 50 years of age, naturally robust, but now emaciated, and beginning to halt from sciatica, which had continued many months, and resisted every measure which the faculty could propose. He was taken in hand by a Charlatan, who cured him completely by purgatives. He caused the patient to take, every morning, an ounce of Epsom salts, without interruption. The emaciation increased, and debility became extreme; but the pain and lameness proportionally diminished. He therefore persevered, and after having swallowed many pounds of salts, he got perfectly well, and has now continued so ten years. The ancients cured sciatica sometimes in one day, by purgative glysters of colocynth, elaterium, &c. so acrid as to bring even blood from the intestines. Barthez recommends a foot-bath in which oxymuriate of mercury is dissolved—half a drachm to six quarts of water. Calomel in alterative doses has removed the disease.

The external applications have been very numerous.—Spirituous fomentations, mustard poultices, blisters, cupping (a favorite remedy of Tissot), the actual cautery, as recommended by Hippocrates, the application of Moxa,

and Setons, have been praised, though they all occasionally fail.

To these we may add another remedy, the history of which is somewhat curious—namely, the *Remedium Arenarum et Arundinum*, by which, according to Suetonius, Octavius Augustus was cured of a particular weakness in the left hip, thigh, and leg. The most ingenious explication of this remedy is given by Pouteau. He supposes that the *reeds* were employed for the purpose of beating lightly, and for a considerable time, the parts affected, and that afterwards the *sand* was applied warm to the beaten parts.

This plan has actually succeeded in many cases of sciatica.*

§ 49.—*Treatment of Misplaced Gout.* Suppose a physician is called to the treatment of an internal disease in a man who has been, or still is subject to gout—or strongly predisposed thereto. First of all, he should endeavour to ascertain whether the disease, for which he is consulted, be really a gouty affection—for it would be very wrong to suspect that every malady in a gouty subject is of an arthritic nature.

But suppose the affection to be really gouty, and fixed on an organ of importance, we must hasten to draw it towards other points, and if possible, give it the form of gout in the joints. This is the first step to be taken in repelled, retrocedent, or disguised gout; but we shall often find ourselves disappointed, if we conceive that, to effect our purpose, it is only necessary to apply a mustard poultice to the soles of the feet, as is the general

* This process is very similar to the Oriental methods of curing chronic Rheumatism, as described in the *Medico-chirurgical Journal*. Vol. ii. p. 526, and vol. iii. p. 109, where a plate of the apparatus is given.

routine. It is here necessary to recollect the route by which the gouty action travelled, stage by stage, from the extremities to the interior; for it is by this same route it must travel back again. Thus if, previously to the retrocession, the intermediate joints, as the knees, wrists, elbows, &c. had occasionally been the seats of the disease we must apply the counter-irritants to *these* parts rather than to the feet, where they would only cause useless pain, and increase the general irritation of the system. This is what experience teaches.

Acting with these views, when we meet with internal gout succeeding the wandering, or the imperfectly articular forms of the disease, we must not calculate on much success from irritants to the extreme points of former invasion. We ought rather to apply leeches to the neighbourhood of the *present* seat of gouty action, and flying blisters or sinapisms to those joints next in order of distance from the trunk, and so on till we elicit gout to the surface or extremities. This will sometimes take place in the form of *Erysipelas* or *St. Antony's fire* on the stimulated parts, with relief to the internal organ—proving the close alliance between the two affections.

For the purpose of counter-irritation we employ sinapisms, or simply *mustard foot-baths*, or rubefacients. Gondran's foot-bath is sometimes a valuable remedy in repelled or retrocedent gout. It is made by adding four, five, or six ounces of muriatic acid to six or eight quarts of warm water. Cupping, cupping with scarifications, and the Moxa, have been employed with success by some physicians. But where there is *fixed* combined with *misplaced* gout, we must be cautious how we apply counter-irritants to the extremities, since the remedy may prove worse than the disease. In these cases, warm emollients are

preferable to strong irritating applications. The spirituous poultices already described will here be serviceable. Musgrave, after producing a gouty swelling of the joint by means of a mustard foot-bath, applied a blister in the neighbourhood, and kept it open for some time, in order to fix the gouty action in the extremity. This practice is infinitely preferable to *hot foot-baths*, which too often determine a new translation, as Barthez has well observed, instead of keeping gout in the feet.

Finally, we should always ascertain the *cause* of the retrocession, and act accordingly. Is it the result of *narcotic* applications?—Then *irritants* to the same parts will produce good effects. Has it been from *cold*? the application of a gentle *heat* will frequently remedy the evil. Has gout retroceded from *astringent* topicals?—Then apply warm *emollients*. Meantime, if the patient be at all plethoric, or if he have been subject to hæmorrhages, blood should be taken from the lower extremities, either by the lancet or leeches. This measure alone has often caused retroceded gout to abandon the internal organ; but it should be practised with care, lest by too much enfeebling the patient, you leave not vital force to favour the translation from the interior to the exterior.

As to *internal* medicines, as camphor, ether, aromatics, &c. they will be mentioned when treating the different kinds of misplaced gout.

§ 50.—*Treatment of irregular Gout under the Spasmodic form.* In misplaced gout, affecting the organs of sense in the *Spasmodic* form, bleeding from the lower extremities, irritations to those joints most susceptible of gouty action—leeches to the neighbourhood of the disease—blisters to the head itself—and, where there is sus-

picion of its being the harbinger of affection of the brain, brisk purgatives.

§ 51.—*Gouty Apoplexy*. Barthez proposes a very large bleeding from the feet, and next, if necessary, from the arm. Leeches ought also to be applied to the temples, and to the joints deserted by the gouty action. Musgrave advises the jugular vein to be opened—a practice too much neglected in these days. He also recommends cupping with numerous scarifications between the shoulders. But above all, the joints must be irritated, and the disease recalled there by all possible means. Some practitioners have advised the head to be encircled with napkins wetted with cold water, while the lower extremities are plunged in hot water with mustard, &c. In the convalescence from gouty apoplexy of the *nervous* kind, the bark should be administered to guard against relapse.

§ 52.—*Gouty Hypochondriasis and Hysteria*. Besides the internal use of bark, camphor, musk, assafætida, aconite, &c. blisters should be applied to the joints, or some other part of the surface. These we have found extremely useful.

§ 53.—*Spasmodic Gout of the heart and lungs*. These are remarkable for their periods of intermission. In the moment of attack of gouty *Angina Pectoris* or *Gouty Asthma*, the most powerful antispasmodics must be administered, while the general indications are to be fulfilled according to the nature of the case. If the danger be urgent, compresses dipped in boiling water should be immediately thrown round the joints previously affected with gout—If plethora exist, let a vein be opened—while wine glasses should be applied all along the spine, and to the stomach, till cupping glasses can be procured, the air being rarefied by a piece of lighted paper, or by means of spirit

of wine. In these critical situations, a combination of *sulphuret of potash with volatile alkali* has proved decisively efficacious. Ether, assafætida, camphor, or Eller's LIQUOR ARTHRITICUS, which consists of liquid succinate of ammonia united with ether, may also be had recourse to.

In the intervals, bark, united with camphor, and assafætida, should be prescribed. M. Recamier, a distinguished physician in Paris, orders, during the intervals of *Angina Pectoris*, and to prevent returns, large doses of assafætida alone, which he finds preferable to bark. In the intervals of gouty *asthma*, small doses of ipecacuan are useful, as are also assafætida with opium. But the most efficacious preventives are small perpetual blisters to the arms at the insertions of the pectoral muscles,

§ 54.—*Treatment of irregular Gout under the inflammatory form.* In gouty *cutaneous* inflammations, we should be guarded in our external applications, lest we cause a retrocession to an internal part. In fact, we must respect this form of gout, which is the least terrible of all. If at any time, the *cutaneous* affection should be so afflictive as to require mitigation, leeches to the part itself or the neighbourhood may be had recourse to; or *sulphureous* waters both internally and externally.* In this way gouty *Erysipelas* and *herpes*, if very violent, may be treated. If they are seated on the face or an exposed part, they may be solicited to other more convenient spots by proper irritations there.

* The Harrowgate water is very useful in these cases; and where it is inconvenient to visit that spring, or procure the native waters, they may be artificially prepared by a solution of sulphuret of potash, sulphate of magnesia, and supertartrite of potash in common water.

In gouty inflammations of the stomach or bowels, the treatment must be proportioned to the intensity of the affection. If acute; blood-letting—leeches to the abdomen and anus—and when the inflammation is checked, aromatic fomentations, camphorated applications, &c. *Internally*, as the inflammation declines, diluents, emollients, Sedlitz waters, light bitters, &c. During convalescence, exercise in a carriage or on horseback, but always before meals, should be enjoined.

In gouty inflammation of the *serous membranes*, which are naturally rapid in their termination, we must act with great decision. Blood-letting, and powerful counter-irritations should be immediately practised. The cases of inflammation and pleurisy, which we have already given, will serve as examples. The same treatment, modified by localities, will apply to similar affections in the head, belly, &c. as phrenzy, peritoneal inflammation, &c.

We must not act with less promptitude when the parenchymatous structure of internal organs is affected, particularly the lungs. Costa saw a gouty subject perish in twenty-four hours, where active depletion had been deferred. The lungs were *gangrened*. “In these cases,” says Sydenham, “we must pay no attention to the gout, but treat the affection as pure peripneumony, by repeated venesections.” It would perhaps be more prudent to say thus:—“treat it as peripneumony by repeated blood-letting—but have regard to the gout.” We may also observe that blood-letting from the foot is more serviceable and safe, than from the arm.—Strong irritations to the lower extremities are also proper; after which, blisters there and on the chest will be useful.

In *Suffocative Catarrh* we have repeatedly employed the following means, with perfect success, in a gouty sub-

ject who has an enormous appetite, takes very little exercise, and never goes to bed without a hearty supper. This man, from time to time, and particularly in spring and autumn, is suddenly awoke by violent fits of *Suffocative Catarrh*, which threaten his life, and exhibit some traits of pneumonic inflammation. We first bleed from the feet, repeating the operation according to the state of the pulse, then apply sinapisms successively along the lower extremities, and to the wrists, and throw up purgative glysters every day, till heat is complained of in the bowels. These glysters bring away incredible quantities of fæcal accumulations. Meantime a nausea is kept up in the stomach by infusion of *Arnica montana*. Sometimes these means are insufficient, and we are obliged to apply leeches to the chest, blisters to the legs, and afterwards to the thorax. The recovery is completed by blisters kept open for some time on the arms, and by squills and other expectorants internally.

In *Gouty Catarrh* there is occasionally such an afflux of mucus to the bronchial tubes, as to threaten instant suffocation, as the patient has not power to expectorate it. In these cases emetics are sometimes useful, sometimes dangerous. Barthez has experienced good effects from muriate of ammonia, musk, camphor, and assafætida, very strong volatile liniment to the epigastrium, together with cupping glasses there, and to the lower ribs on each side. In very desperate cases, the actual cautery to various parts of the thorax ought to be resorted to.

The treatment of the other gouty inflammations, as of the liver, womb, kidneys, &c. will be easily deduced from what we have said above.

§ 55.—*Treatment of wandering or imperfect Gout.*—Wandering gout may exist in the joints or out of them.

In the latter case, our great object is to bring it to the extremities, and to fix it there. When it affects the interior of the body, whether in the form of those wandering pains, commonly called Rheumatic, or those anomalous affections of the spasmodic character, we must have recourse to the means already pointed out, for eliciting it to the exterior, and also to others which we shall here advert to.

That species of gout observed among the Chinese and Japanese, bears much analogy to the one under consideration; and the curative measures pursued by those people would appear eminently useful in this country, particularly *acupuncture* and the *moxa*. Some experiments on the former would lead us to augur favourably of its efficacy; but they have not yet been sufficiently numerous to authorize any general conclusions. As to *moxa*, it has long maintained its ground on the continent, and may be made a valuable curative process in the treatment of wandering gout;—we mean as practised in China, so as to cause only a slight superficial burn; but multiplied and repeated, as among the Chinese. Their *moxa* is composed of a species of mugwort; is thin, burns slowly, and either destroys a small segment of cuticle, or raises a blister on the part. They generally repeat this process three or four times on the seat of pain; but where the latter is deep and obstinate, the operation is reiterated a great many times. W. Ten Rhyne observes that his interpreter, who was so afflicted with gout in the knees that he could not walk but when propped on a stick, was cured in two days by the *moxa*. This traveller has seen the *moxa* succeed in an immense number of cases, not merely of gout, but of various other painful indolent affections. We repeat it, that this remedy is worthy of a much more extended trial

among us than it has yet received. The application may be modified according to the suggestion of Alph. Leroi, by the intervention of a piece of cloth between the skin and the moxa. An able physician of Paris uses a disk of prepared Agaric, which burns slowly, and effects a gentle ustion of the parts.

The retrocessions of wandering, imperfect gout are sometimes very formidable. When the disease cannot be recalled to the joints by the various means which we have already detailed, we must endeavour to convert it into a *cutaneous* affection, by the application (to various and convenient parts of the surface) of moxa, mustard blisters, urtication, (stinging,) issues, or other emunctories on the skin. The efficacy of these, however, will generally be increased by a previous bleeding from the lower extremities.

But we must be ever careful to trace the causes of these diseases and their retrocessions; for on the removal of them a great deal of our success depends.

Another observation which we would beg to impress on the minds of medical men is this, that, whereas in *gout of the joints*, there is occasionally a partial retrocession, while the disease still holds possession of the joint invaded, so in anomalous gout, after having apparently reproduced the gouty action, and even the swelling in the extremities, we shall find the internal organ, on which the retrocession fell, still labour under derangement of function that may, if not carefully attended to, end in organic, and ultimately mortal disease! We must not then rest satisfied with the fortunate translation of gout from an organ to a joint. We must watch the function of that organ, and not desist till we restore it to its pristine state of integrity.

§ 56 — *The prevention of Gout.* When an attack

gout, whether of the joints or of an internal organ, comes to a successful termination, the patient must consider himself as always in danger of a recurrence of the disease, after an interval of longer or shorter duration, unless he has fortitude to oppose to it those preventive checks which the rules of Hygiene enforce. We shall arrange the most important of these under the following heads, viz.

1. Elevated situations, sheltered from the northerly and westerly (in this country, easterly) winds should be chosen by the gouty for residence, where the choice is in their power. Removal to a warm climate is generally beneficial. Van Swieten relates the case of a gentleman who had lost the use of hands and feet by this disease, who was completely cured by a three years' residence in India.*

Partial baths of lukewarm water, in the form of foot-baths have been strongly recommended by Desault, Lobb, and others, as preservatives from gout, and they may be usefully employed; but the vapour bath promises to be more efficacious. The cold bath and the cold affusion have also been extolled; but they are unsafe, unless under particular circumstances; for instance, where the patient is young, robust, untainted constitutionally with a gouty diathesis, and where he possesses vital energy enough to insure complete reaction against the impression of the cold, then we might sanction the advice of Grant, to ford a clear stream in search of fish, in imitation of the ancients,

* Dr. Scudamore remarks:—"Thus I have known some who have quitted this country for India, with a gouty and rheumatic state of pain and infirmity afflicting them on their embarkation and afterwards; but no sooner have they arrived in a warm latitude than ease has returned; and gradually their natural recovery has taken place." 2d Ed. 475,

who waded about in the cold waters of the Cydnus, as a preservative against pains in the joints. We would recommend, however, that after any cold applications of this kind, diligent frictions with warm and coarse towels, should always be practised, succeeded by moderately active exercise.*

2. Warm clothing, as favourable to the function of perspiration, and as a safeguard against sudden changes of temperature, is that which suits the gouty subject. Woollen vestments moderately tight made are most proper for these purposes. The return of gout has been prevented by wearing, day and night, woollen socks, over which was an oil-cloth, made to come close to the skin round the leg, and prevent all evaporation. The socks were changed when soiled with perspiration.

The gouty subject's bed should be warm, but not too soft. The feet always kept dry and warm, but not hot. All repellent applications, for the purpose of removing disagreeable smells from the toes, should be avoided, or only composed of spirituous or aromatic tinctures.

3. Every thing in the dietetic line should be carefully attended to. There are numerous facts to prove that a vegetable and also a milk diet has cured gout effectually,

* Dr. Scudamore, in a code of excellent prophylactic instructions for gouty subjects, recommends that the whole of the feet, between the toes, all round the ankle joints, (and the knee joints also, if they have been the seat of complaint) should be sponged every morning with salt water, or water in which salt is dissolved to the point of saturation, "care being taken that the *chill* of the fluid be always just removed by the addition of a sufficient proportion of boiling water." After this he advises friction with the hand, till a sensible glow of the skin is produced. This process, of course, is with the view of rendering not only the extremities but the whole body less susceptible of atmospherical vicissitudes.—EDITOR.

after it had been of long standing. Those with whom vegetable diet agreed, have generally abstained from watery indigestible fruits—used spice with their aliments, and taken regular exercise. A milk diet, as well as a vegetable, however, has rarely succeeded, except in young and robust subjects, whose stomachs were equal to the digestion of this kind of food, and who naturally took much exercise.*

It ought also to be kept in mind, that a sudden transition from animal to milk or vegetable diet is very imprudent, since serious evils—even the transformation of regular into internal gout, have been the consequence.

The most suitable, and truly the most proper preventive diet for a gouty subject, is that which temperance and moderation dictate; and which produces, *after each meal, a pleasant sensation of warmth, freedom, and exhilaration internally.* Aliment drawn from a proper proportion of animal and vegetable substances together, taken in moderate quantity, uncomplicated, and plainly dressed, produces those effects, when combined with proper regimen in other respects.

4. After attention to diet, nothing is of greater importance, in the prevention of Gout, than keeping up a proper

* In the second edition of Dr. Scudamore's valuable work on Gout, to which I have so often had occasion to refer, and which cannot be too often perused by both patient and physician, there is a remarkable case related of a gentleman of full habit, great vigour, unimpaired by age, but much afflicted with gout, who abstained from animal food, entirely for sixteen months. The gouty attacks were much mitigated; but a train of nervous symptoms now developed themselves, with great depression of spirits, and some œdema of the lower extremities, which induced Dr. Scudamore to recommend a return to the usual comforts of the table, according to a regulated plan of careful moderation, with an alterative course of treatment by medicine. Under this plan his general health improved, while his disposition to gout more and more decreased. 492.

degree of the excretions, particularly of that from the skin. Physicians have observed that a gouty person is distant from an attack, in proportion as the insensible exceeds, relatively, the sensible perspiration ; and a similar remark has been made by Revillon in respect to Hypochondriasis. On these data Barry, who observed that in valetudinarians who took too much liquid in proportion to solid food, the insensible cutaneous discharge was defective, advised both them and gouty convalescents, to take less drink and more substantial aliment. This advice, though founded on a delicate test, is by no means imaginary, and ought not to be despised by either physician or patient.

The functions of the skin are very particularly augmented by frictions with dry and warm flannel. Boerhaave, Desault, Cadogan, and others, relate various examples of gouty subjects who have been entirely cured by this process. Cadogan observes that it is principally by frictions that horses, which take little exercise, are kept in good condition. He consequently recommends those afflicted with a gouty disposition, to rub themselves while in bed, night and morning, for ten or twelve minutes, with their own hands covered with woollen gloves. Desault instances the case of a man who attained the age of 100 ; but who, for thirty years before his death, preserved himself from gout, to which he had long been a martyr, by this practice.*

5. The man who wishes to preserve himself from gout, must take bodily exercise. This, however, should never be entered upon *during* the digestion of our food, but towards the *close* of this process, when the various ex-

* Sir William Temple observes, in reference to friction, that "no man need have the gout who can keep a slave."—EDITOR.

cretory functions begin to act. Of all others, horse exercise is the best. Next to this, is that kind of exercise which does not require much muscular effort, as billiards, the swing, and a gentle promenade, which may be used immediately after meals. Cullen and Barthez have remarked that *carriage* exercise alone is no protection against gout; and many physicians in every capital exemplify this fact. The gouty subject then must find out that *kind* of exercise which agrees with him, and checks his complaint; and to this he must deliver himself up without reserve, fearing only one thing—that of exercising too little.* The following is an exemplification from Loubet's letters on gout.

A young man, at the age of twenty-five years, was of a most enormous corpulence of body. He was an only son, and very rich. He experienced an attack of gout, which frightened him so much, that he entered on the following regime of exercise. On Mondays, he played at tennis for three or four hours in the forenoon; on Tuesdays, he devoted the same space to mall; on Wednesdays, he hunted; on Thursdays, he rode; on Fridays, he exercised at arms; on Saturdays, he walked to one of his

* This must be taken *cum grano salis*. "It is the injudicious practice of some persons," says Dr. Scudamore, "to mix indolence with exertion, by being inactive at home during the greater part of the week, and taking *excessive* exercise on occasional days. I know some gouty sportsmen who exemplify this statement very strongly, in performing even feats of riding at particular periods, but are sedentary in their general way of occupation. In this manner a state of *exhaustion* rather than wholesome fatigue is produced; and when by accidental excess in walking, more particularly, the weakened joints are thus *over-exerted*, the intended benefit is sometimes converted into an exciting cause of a paroxysm." 2d. Ed. p. 478.

country-seats, three leagues distant ; and on Sundays, returned on foot again. The remedy proved so successful, that at the end of eighteen months he was reduced to common dimensions. He married ; and continuing his exercises, he got rid of all the humours with which he had been gorged. From a mis-shapen mass, he became a well-made and vigorous man, exempt from gout, and enjoying perfect health.

The sleep of a gouty person ought to be in just proportion to the wants of his constitution, and to his habits of life ; he ought not to sleep on a full stomach, and therefore with Mead, we would recommend the disuse of supper. NIMIA VENUS, as shattering the nervous system, and debilitating the digestive organs, is always injurious ; indeed Cytherean and Bacchanalian excesses are generally conjoined in producing the gouty diathesis :—

Ut venus enervat vires, sic copia vini
Et tentat gressus, debilitatque pedes.

6. When a man is menaced with gout, he should avoid, as much as possible, all intellectual avocations which require intense thought—particularly soon after meals. Above all, he should guard against violent passions and melancholy reflections. Let him, if he cannot live without mental exercise, select those agreeable studies which amuse without fatiguing the mind ; and which confine not the body to a sedentary position. He may apply himself to the arts and sciences, to natural history, &c. Or let him instruct himself while travelling. Let him make the tour of France and Italy ; and instead of poring over *types*, let him peruse the *originals* in the great book of Nature.

These moral and physical means, resulting from a judicious regime, are the grand preventive checks to gout; and vainly shall we endeavour to substitute any specific or other remedy in their place. Mean time we may mention some of those medicinal agents which have been considered as preservatives from gout.

7. *Preventive Medicines.* Gentle *sudorifics*, as infusions of sage or rosemary in milk, have proved useful in the hands of a certain empiric. *Blood letting*, at certain periods, has appeared to check the returns of the disease; and is recommended by the ancients, particularly Galen and Celsus. Boerhaave, among the moderns, has made observations in unison with this practice. Nevertheless, excepting in very plethoric habits, this measure is doubtful or even dangerous—as it may, when imprudently used, convert periodical gout of the joints into internal gout. Barthez attributes to this practice a mortal apoplexy to which he was called.

Cupping and Leeching are not accompanied by these dangers, and have produced notable advantage. Bauer particularly recommends cupping with scarifications about the ankle and wrists; or in other situations according to the habitual domicile of the affection. He repeats this operation every three months or oftener. He assures us that this measure *will radically cure the gout*, provided it has not continued more than four years, and that the process is persevered in for life. The *regime* which he advises in aid of this, consists in the *ne quid nimis*, or common moderation.

Cauteries to the extremities have proved serviceable, especially where the patient is menaced with internal gout. Soap and nitre in pills, with regular exercise, have been

praised by Boerhaave and others as anti-arthritics. Purgatives have been very useful in the intervals of gout.*

Cheyne preferred the bitter laxatives, as rhubarb. Alph. Leroi recommends a purgative of senna and sulphate of soda taken during two days in each wane of the moon; which epoch, he says, is not a matter of indifference.

For our own parts, we endeavour to regulate the bowels by temperance and strong exercise. The gouty subject ought certainly to visit Cloacina's temple every day; and for this purpose, a little rhubarb before dinner, or a little sulphur and cream of tartar, at night, will generally be found sufficient. Aloetic medicines do not usually agree with those disposed to gout.

Bitters have been taken as a prophylactic in gout; and it is well known that the famous *Portland* powder is no other than the "*Pulvis Arthriticus*" of the old pharmacopeia of Paris. Its injurious effects, when long continued, need not now be repeated; nevertheless, gentle bitters taken occasionally, and for a short time, when no irritation prevails in the stomach, are useful in assisting the digestion, provided the patient does not give way to the appetite which they provoke.

Finally, as the causes of gout resolve themselves into

* Dr. Scudamore gives the following form of pills for this purpose—
R. Gambogiæ gr. j. pil. Hyd. gr. v. Pulv. Aloes compos. gr. v. ad. x.
saponis duri gr. ij. fiant pilulæ iii. vel. iv. hora somni sumendæ, alvo
astrecta, vel pro re nata.

From a consideration that derangement of the digestive organs and cutaneous functions is the paramount cause of gout, the compound decoction of sarsaparilla, with a purgative twice a week of calomel, scammony, and tamarind pulp, as recommended for rheumatism, in my Essay on "Atmospheric Influence," might probably prove a valuable preventive of gout.—EDITOR.

predisposition—derangement of the digestive and perspiratory functions—and debilitation of any kind, our great preventive measures must hinge entirely on the counteracting of these. The preservative treatment therefore must vary according to the cause and species of gout; the age, sex, and temperament of the patient. As a general rule, however, we cannot give a more concise or useful one, than the following sentence of Musgrave:—“*Natura paucis contenta est, et temperantia cum actione contra podagram Prophylaxis.*”*

I shall conclude the subject of *prevention* with the following judicious remark of Dr. Scudamore. “I know no rule more important to be mentioned, than that the patient, who finds out by sad experience his weakest points of attack, and the peculiar influence of particular remote causes, should guard against them with a nurse’s eye, and with corresponding care. Thus some, from exposure to wet and cold, incur either certain Gout or Rheumatism; while others, although very gouty subjects, escape such trial with impunity. As therefore every gouty patient is rather more susceptible to some one remote cause than another; he cannot be too much a practical philosopher in his whole conduct, or too scrupulously vigilant against the enemy in his most vulnerable quarter.”

* Nature is content with a little; and temperance with exercise is the best preservative from Gout.

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