







INAUGURAL DISSERTATION

AN

ON THE

GOUT:

SUBMITTED TO THE EXAMINATION OF

THE REV. WILLIAM SMITH, S. T. P. PROVOST;

THE TRUSTEES, AND MEDICAL PROFESSORS

OF THE

COLLEGE OF PHILADELPHIA,

FOR THE DEGREE OF DOCTOR OF MEDICINE,

ON THE 23d DAY OF JUNE, A. D. 1791.

BY GEORGE PFEIFFER OF PHILADELPHIA, FELLOW OF THE PHILADELPHIA MEDICAL SOCIETY.

> As man, perhaps, the moment of his breath, Receives the lurking principle of death; The young difeafe, that must fubdue at length, Grows with his growth, and strengthens with his strength.

> > POPE.

Be then my earnest care, and constant aim, To ease his varied ills, and prop his tott'ring frame.

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For D'Redman

With Jentiments of venination and uspect, for his age

WILLIAM SMITH, S. T. R. MALLINY

and, worth, from his

Obedant Humble for.t.

The futto

To William Shippen, jun. M. D. Professor of Anatomy, Surgery, and Midwifery; Benjamin Rush, M. D. Professor of the Theory and Practice of Medicine; Caspar Wister, jun. M. D. Professor of Chemistry and Physiology; Samuel P. Griffitts, M. D. Professor of the Materia Medica and Pharmacy; Benjamin Smith Barton, M. D. Professor of Natural History and Botany in the College of Philadelphia.

Gentlemen,

1MPRESSED with all the effeem and refpect, that a pupil can feel for his teachers : confcious of your unremitting zeal to infpire your pupils with a tafte for fludy and obfervation; and fenfible of your ardent and generous exertions for their advancement in the temple of fcience;

Permit me, thus publicly, to acknowledge the fentiments of a thankful heart—And be affured, refpected Sirs, that of your politenefs, and of the inftruction which I have derived from your ufeful lectures, I fhall always retain a grateful remembrance.

GEORGE PFEIFFER.

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JAMES READ, ESQUIRE,

fo William Shipps, jun. M. D. Prop. of Anatomy, Surgery, And Midwir

OF

READING, PENNSYLVANIA.

Honoured Sir,

TO you I likewife owe a large fhare of gratitude, for the kind favours which you have beftowed upon me.—And, after having fpent a long and exemplary life, engaged in the fervice of your country, that you may receive a just and full reward, where only it is to be experienced, is the fincere prayer of,

SIR,

Your much obliged, and

Very humble Servant,

GEORGE PFEIFFER.

INTRODUCTION.

I N conformity to a law of this inftitution, and with great diffidence, I take up my pen;—and, when the reader reflects that I write, not from choice, but neceffity, would fain flatter myfelf, that he will receive the following fleets with a candid indulgence.

But before I begin the confideration of the fubject propofed, would take fome notice of a common and abfurd error, which I believe has been very injurious to the interefts of medical fcience.

Almost infinite in number are the names of difeafes; and as infinitely different in their nature do many people fuppose difeases to be. Thus, mention half a dozen to an ignorant man, which would require nearly the fame remedy, he has an oppofite and infallible one for each. On the other hand, only tell a Brunonian, that you labour under a fthenic or afthenic difease, and he, confident that it must be uniformly one or the other, will either starve or ftimulate you indifcriminately, till he kills or cures you.

Difeafes are, however, by no means fo uniform in their progrefs as the Brunonians would make them, nor fo diversified in their nature as too many fuppofe them. Thus, it is now afcertained, that the difference between tetanus and hydrophobia is very triffing; hyfteria and hypochondriafis are nearly the fame, requiring only dyfpepfia to unite them; rheumamatifm and gout require alfo nothing but dyfpepfia to make them very fimilar to each other: gout feems further to be the connecting medium betwixt inflammatory and nervous difeafes, fometimes chiefly affecting the fanguiferous, fometimes the nervous fyftem.

AN

INAUGURAL DISSERTATION, &c.

AN

OF THE GOUT.

A T the very opening of our fubject, a perplexing and almoft infurmountable difficulty occurs: it would appear abfurd to treat of the caufes and cure of any difeafe, without first defining, or rather defcribing that difeafe. To do this fatisfactorily, in the prefent inftance, would be a most laborious task indeed; and would, of itself, far exceed the utmost limits of this differtation: for the gout is not only different in the fame perfon at different times, but frequently counterfeits almost every difeafe incident to the human body. I shall, therefore, be very concise in my definition and hiftory; and for further information on these heads must refer to Sydenham, Warner, Van Swieten, and Cullen.

In purfuing this fubject, I fhall divide the gout into two fpecies, viz. inflammatory and nervous; or tonic and atonic: under one or the other of which, all the varieties mentioned by authors may be included. This division, I conceive, to be of the utmost importance; and as it is founded on experience. rience, I hope to make the propriety of it appear very evident in the courfe of this enquiry:—I fhall confider each fpecies feparately, after first faying a few words on the difease in general.

The gout feldom appears before the thirty-fifth year of a perfon's life; it most generally affects the male fex, though fometimes the female. It is most frequently met with in robust perfons, with large bodies and heads, who have also full and corpulent habits. It generally feizes on the indolent and fedentary, on perfons who eat a great deal of animal, and but little vegetable food. It is alfo a frequent attendant on men of genius, deep underftanding, and clofe application. Young perfons, and fuch as are not far advanced beyond the acme of life, are most subject to the tonic species, while the aged and weak are liable to the atonic. Women are also for the most part subject to the atonic. Sometimes, however, the fchenic gout is feen in old, infirm people, while the afthenic occurs in the young and vigorous. The gout is likewife frequently hereditary. To fupport this affertion, I have not only the authority of many phylicians of the first eminence, as Sydenham, Boerhaave, Van Swieten, Warner, Cullen, Kirkland, &c. but facts (I had almost faid) innumerable, tend to confirm the truth of it. Drs. Cadogan, Brown, and others, however, have thought proper, totally to deny and ridicule this idea. Dr Brown, in his Elements of Medicine, tells us, " That a taint transmitted from parents to their offspring, and celebrated under the appellation

appellation of hereditary is a tale, or there is nothing in the fundamental part of his doctrine. The fons of the rich, who fucceed to their father's eftate, fucceed alfo to their gout. Those who are excluded from the former, are also excluded from the latter, unlefs they bring it on by their own merit. In fhort, they both loudly affirm, that the gout is always, without exception, the creature of intemperance.

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Now, if bare affertions, unfupported by facts, are mere cyphers in fcience, to what, I would ask, can all these gentlemen have advanced on this head lead ?- For my own part, I cannot but think, to corroborate our opinion. For when a man, to overthrow established facts, makes use of empty affertions and railing, it is with me an almost indubitable proof of their reality. In favour of our doctrine, the great Sydenham tells us, that young perfons are feldom or never afflicted with this difeafe, except from hereditary diathefis; and that he himfelf never faw any, unlefs they had been begotten by gouty parents.

Van Swieten fays, that he has feen many people, who had no reafon to blame any caufe whatever but an hereditary taint; who although they lived according to the greatest chastity and fobriety, yet had been attacked by this difeafe even early in life-Among other inftances, he makes mention of a skilful physician, who, knowing that the gout was hereditary in his family, always, from his early years, apprehended an attack from this

this latent enemy :---nor was he deceived, for he fell at length under its power.

Dr Cullen, in his First Lines, also fays, that the gout is generally an hereditary difease; and further, that the facts supporting this doctrine are very numerous.

The learned Dr Warner, in his elaborate treatife on this difeafe, tells us, " It appears from facts daily verified, that there are people much afflicted with the gout, in the early part of their life, who have not known intemperance, high living, or inactivity; but have unfortunately derived it from their parents, in the particular frame of their conflitutions."

"Notwithstanding, (fays Kirkland, in his Enquiry,) what may have been faid to the contrary, I join in the general opinion, that the gout is often hereditary; becaufe I have known children born of gouty parents afflicted with it—becaufe I have feen it inherited by the natural fon of a gentleman in the station of a labourer; and becaufe those perfons, whose ancestors have been troubled with this affection, are more subject to it than others."

The following fact I received from a refpectable ftudent of medicine, who told me that he had read it in fome of Dr Cullen's manufcript lectures.—I think it was nearly in the thefe words : " There is a certain charitable houfe in the city of Edinburgh, in which, together with many children of poor origin, the natural offspring of gouty lords and gentlemen are maintained. It is obferved, that that most of the latter become afflicted with this dreadful difease, while the former never experience the flightest fymptom of it." Now, these children are neither fed luxuriously, nor sparingly, but, no doubt, live on good wholesome diet; and certainly are not fuffered to be idle or inactive.

Amongst other cafes, Dr Rush, in his lectures, mentions that of a whole family who fuffered by this difease.

The grand-father, if I miftake not, laboured under it-Moft of his children, if not all, had it after him-His fon married, and communicated it to his children-The greatest number of these were females, who lived neither an inactive nor intemperate life; but, on the contrary, ufed all rational means to avoid the difeafe. In fpite, however, of their utmost endeavours, they all died martyrs to the gout. It is likewife not an idle and groundlefs hypothefis, imposed on us by false and felf-interested theorists, but has been noted by accurate and faithful obfervers of nature, that children begotten before their parent has had the gout, have never known a fymptom of it : while, on the other hand, children of the fame parent, begotten after the difeafe has made its appearance in him, and efpecially foon after he has been labouring under a paroxyim of it; these children, I fay, have been feverely afflicted with it.

Definition

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Definition and History of the Tonic Species.

THIS fpecies generally confifts in a violent pain and inflammation of the joints, particularly the fmaller ones, as those of the great toe, &c. frequently attended with fever; and, for the most part, preceded by an unufual affection of the flomach.

It does not, however, always exhibit thefe phenomena; for instead of the joints, it sometimes feizes on the lungs, brain, &c. Sometimes alfo, while it affects one part with excess of action, as the joints or lungs, it affects others with deficiency of action, as the ftomach and inteftines; nay, I believe, it feldom or never appears in the alimentary canal, except in the atonic state. A paroxyfm of the regular tonic gout, is generally preceded by a ceafing of the fweat natural to the feet; an unufual coldnefs in the feet and legs; a feeming defcent of flatulencies through the flefhy parts of the thigh; a frequent numbnefs, alternating with a fenfation of prickling over the whole of the lower extremities; convulfive motions of the muscles of the legs, and an unufual turgescence of the veins. Some degree of torpor and languor is at the fame time felt over the whole body, together with a diminution of the appetite, flatulency in the flomach and bowels, &c. These fymptoms generally continue only for a few days, after which the paroxyfm commences, most commonly at two or three o'clock in the morning, when the patient is waked by

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a violent pain refembling that of a diflocated bone, and ufually affecting the ball of the great toe; though fometimes the calf of the leg, heel, or fome other part of the foot.

These fymptoms are immediately fucceeded by a chillines, shivering, and fever, which, together with a topical inflammation of the part, generally continues as long as the pain itself.

From its first onset, the pain gradually increases, and comes to its height in about twelve hours; after which it as gradually remits, and in about twelve hours more almost entirely ceases, leaving the patient in a breathing fweat, who now soon falls into a fweet and refreshing fleep. Upon waking, he observes, instead of a fwelling of the veins of the part, which alone appeared before, the part itself to be confiderably tumified and red.

For feveral days after this, which I would call the great fit, there is a flight return every evening of the abovementioned fymptoms, which continue with more or lefs violence till morning : after fome time, however, they entirely abate, and leave the patient generally in a remarkably good ftate of health: when the fit is going off, a violent itching feizes the foot, efpecially between the toes.

The progress of the disease is marked by the intervals, which were at first from three to four years, gradually shortening, till at length the patient is almost incessantly tormented with it, except for a few months in the summer. It is also marked by the parts which it affects; for, at first, we commonly see one foot only affected, then both feet alternately; then the hands, wrists, elbows, knees, lungs, brain, &c.*

It might have been mentioned before, that after the first paroxysms, the joints recover their former ftrength, fupplenefs, &c. but after the difeafe has frequently recurred, they remain weak, and fliff; and at length loofe all capability of motion. Concretions of a chalky nature, are likewife often obferved to take place on the outfide of the joints, immediately under the fkin. It may also not be improper to mention that in this advanced state of the difease, the paroxysms frequently alternate with nephritic affections. But, what feems most extraordinary is, that the bones themfelves, fometimes become difforted and foft, like those of ricketty children. Many cafes of this kind are recorded by authors; fome of which may be found in (+1. Van Swieten; 2. Morand; 3. Gagliardi; 4. Petit; 5. Du Verney, &c. &c.)

Du Verney relates an extraordinary cafe of a man, who about the twenty-fourth year of his age, was attacked with what were judged to be gouty pains, about his heels, knees, and the upper joints of his thighs. In a year after, his whole body was tor-

* All the phenomena taken notice of in this definition, have been obferved by Sydenham or Cullen.

† 1. Comment. vol. 53. 2. Histoire de la maladié finguliere, & de l'examen du cadavre d'une femme. 3. Anatom. ofs. pas. 70, & feq. 4. Traité des maladies des os. tom ii. 5. Traité des maladies des os. tom ii. tormented with fuch violent pains, that he was of bliged to lie almost continually in bed.

About this time the bones began to foften; and at length became fo flexible as to bend like wax. His body likewife flirunk to a very fmall fize.

It is remarkable, that in many cafes of this nature, mentioned by authors, the urine deposited a very plentiful fediment, which, upon examination, was found to be of the fame nature with the chalky concretions of the joints, and the calculi of the bladder.

Dr Wilter, in his lectures on chemistry, relates the cafe of a child, whose bones were softened by the rickets, and whose urine contained an astonishing quantity of phosphoric acid. Now, when chemically analyzed, the bones of animals, at least when in an healthy condition, yield a large quantity of calcareous earth and phosphoric acid.

From the abovementioned cafe, therefore, the Doctor was inclined to conclude, (and I think very juftly,) that their firmnefs and folidity depend in a great measure on the prefence of this acid in them. And, in my opinion, we may as juftly add, that the calcareous earth alfo contributes very much to give them a confistent degree of hardnefs.

The matter of which the concretions we have just mentioned are formed, is called by many authors the morbific matter, or cause of the disease. This doctrine appears to me a very strange and erroneous one; for, in general, we see nothing of this materies morbi, till after the gout has been raging raging many years. We therefore look upon it entirely as an effect, and not as the caufe; and think it quite rational to fuppofe, that, in procefs of time, the difeafe induces fuch a difpolition in the veffels of the parts particularly affected, as to caufe them to pour forth into the cavities of the joints, &c. that matter, which, in health, was poured into the fubftance of the bones by their fetretory veffels, and gave them ftrength and firmnefs.

I have now given as full an account of the firft fpecies, as the nature of this work would admit of; but muft acknowledge, that feveral phenomena have been mentioned under this head not peculiar to either; as they muft, however, have come in fomewhere, I thought, they might as well be mentioned here as any where elfe.

A very few words will fuffice for the

Definition and History of the Atonic Species.

Here there is, for the most part, little or no inflammation and pain in the joints; fever generally light, or entirely wanting; and dyspepsia, often attended with other marks of debility.

The principal fymptoms are, lofs of appetite, naufea, vomiting, flatulency, acid eructations, and fevere pains in the epigastric region. Frequently alfo, there occur pains and cramps in feveral parts of the trunk and upper extremitics; colic pains and costiveness alfo, for the most part, attend, though though fometimes a diarrhœa. In these circumftances the mind often fympathises with the body; fo that, to use the words of the immortal Sydenham, " It is not easy to determine which of the two is most afflicted; for all the fymptoms of hypochondrias not unfrequently attend. Palpitations, faintings, dyspepsia, convulsions, &c. do likewise fometimes take place.

When we are called to a perfon labouring under all, or most of the abovementioned fymptoms, we may be almost certain, that they are marks of the gout; by there occurring, at the fame time, flight pains, and, at least, a tendency to inflammation in the fmaller joints, especially of the lower extremities: by their returning after certain periods of time; by appearing in such habits as we might, *a priori*, suppose to be predisposed to the gout; and by this difease having been hereditary in the patient's family.

It may not here be improper to observe, that these two species often run into each other; the tonic becoming atonic, and *vice versa*; and that a mixture of both sometimes occurs.

Of the Caufes of the Gout.

THESE I shall divide into the predifposing, remote, occasional or exciting, and proximate.

This is a difficult part of our fubject. The three first I shall confider as appertaining to the difease

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in general; and the fourth, as particularly diffinguifhing the two fpecies of it.

Ift. By the predifpofing caufe, or predifpofition, I mean that flate of the fyftem which is abfolutely neceffary to the production of the difeafe; and which, being wanting, the exciting caufes would always be applied in vain. By this expression, however, I do not with to intimate with Dr Brown, Cadogan, &c. that the action of the ufually exciting caufes, is always neceffary to its production. On the contrary, I firmly believe, that in the cafe of hereditary diathefis, it often occurs without the least evidence of any exciting causes having been applied. The predifpofing caufe then, I, with Dr Rufh, fuppofe to be debility; this debility is either acquired or hereditary. The acquired is alfo, for the most part, of the indirect kind; the powers producing it being in general of a ftimulating nature.

That general debility is the predifpofing caufe of the gout, may be inferred, 1ft, From the time of life at which it commonly appears: 2d. From the habits in which it generally occurs: 3d. From the inconteftible marks of debility, which almost invariably precede every paroxysm of it, as tremors, coldnefs, efpecially of the extremities, dyspepsia, and weak pulse. I infer it, 4th, From the remedies which, if given when a paroxysm is about to commence, will frequently put it back. These are the warm bath, laudanum, wine, &c. a pint, or even a quart of wine, may be often administered, not only with perfect fafety, but manifest advantage, while a paroxyfm of even the tonic fpecies is in the forming state: but when the inflammation, and other fymptoms of exceffive irregular action, (for fo we shall denominate it) have come on, nothing would be more improper or injurious, as we truft our plan of cure, which has been repeatedly practifed with the beft fuccefs, will fully prove. Thefe confiderations on predifpofition will very aptly apply to inflammatory difeafes in general; and few as they are, I deem them abundantly fufficient, entirely to overthrow Dr Brown's hypothefis, who fuppofes predifposition to be nothing but an inferior degree of the difeafe itfelf. Thus, in the forming stage of inflammatory difeases, he tells us, that the action of the fystem is confiderably above health; while it is notorious, that all their precurfory fymptoms, without exception, tend to difprove this unwarranted affertion.

Nay, fo univerfally are fymptoms of debility obferved in the forming flate of all difeafes, except fuch as arife immediately from wounds or poifons, that our learned profeffor of the theory and practice of medicine, (Dr Rufh) calls difeafe and debility fynonymous terms.

Here we cannot but acknowledge a feeming inaccuracy of expression in making use merely of the word debility, to express our idea of the predisposing cause: for, fays an opponent, if it confists in mere debility, why do we not see it after nervous fevers, syncope, &c.? For furely, here we have have enough of it in all confcience!-Granted, we have; but let it be remembered, that debility may be very properly divided into two kinds, viz. acute and chronic; and further, into fuch as affects the living or moving folids only, and fuch as alfo affects the fimple folids or ftamina. Under the former I would clafs fuch difeafes of defective action, as are, comparatively fpeaking, of but fhort duration, and appear foon after the caufes of them have been first applied. To the latter belong the gout, and all other chronic difeafes; that is, fuch as do not appear immediately, but require a long continued application of their caufes to produce them. To prove that even the firmest of all the fimple folids, viz. the bones may, and often do become much debilitated, we have only to refer to the works of Van Swieten, Petit, Du Verney, &c.

Of the Remote Caufes.

BY thefe, I mean all those powers, which, when long continued, produce the flate of predisposition. They are intemperance, indolence, intense fludy,

in fhort, irregularities of every kind.

Intemperance in eating and drinking, are of themfelves fufficient to induce the gout; but muft (I had almost faid) inevitably do it when connected with a fedentary or indolent mode of life: for then, notwithstanding Dr Brown's opinion, a plethora will be produced, which every body knows, must induce debility. By plethora, I mean a preternatural fulnefs and over diffension of the veffels by the fluids of the body. What must we again think of that man, who, with unparalleled boldnefs, fleps forward to overthrow, by mere affertions, a doctrine founded on and confirmed by every day's experience ?

Nothing in my opinion is more eafy to be conceived, than the gradual formation of a plethora by indolence, and luxurious living; for by indolence the action of the fyftem in general, and effecially the fecretions, and excretions, are greatly diminifhed; while by the luxurious living, conftantly and particularly flimulating the flomach, an inordinate appetite is generally created, often attended with a quick and powerful digeftion. Here then, contrary to the Doctor's opinion, we have a large quantity of nutritious fluid generated and conveyed into the fyftem. But all the fluids are too long, and in too great abundance retained there: now this retention conflitutes neither more nor lefs than plethora.

The immoderate use of wine, and other spirituous liquors, is not only productive of the disease in question, but also of dropsies, obstructions of the liver, and of other viscera, madness, palsy, apoplexy, epilepsy; in short, almost every disease, both acute and chronic, to which the human body is liable*.

* For ample information on this fubject, I beg leave to refer to an effay by Dr Rufh, intitled, "An Inquiryinto the Effects of Spirituous Liquors upon the Human Body, and their Influence upon the Mappinets of Society."

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But, further; fo great is the power of these liquors in producing the gout, that in those countries where the use of them is unknown, this difease is also unheard of; witness India, and Lapland. See Van Swieten's Commentaries, vol. 13. and Linnæus, Flor. Lapon. p. 155[†].

Intenfe fludy may act in two ways; firft, by the inactivity generally connected with it; and fecondly, by a power of its own. We believe that both reafon and experience are on our fide, when we fay, that thinking is a ftimulus; and that when moderately employed, it invigorates both the mind and body; but that when carried to excefs, like other ftimuli, it induces indirect debility.

Of the Occafional or Exciting Caufes.

WHEN there is in the fyftem that peculiar kind of debility, or flate predifpoing to the gout, which is

+ Dr Cadogan, in his treatife on the gout, has the following note: "I have made what inquiries I could upon this capital article (viz. wine), from living witneffes; for I don't always pin my faith upon books, knowing it to be no uncommon thing for authors, inflead of framing their fyftem from obfervation and experience, to wreft and explain both to fupport, their opinions. I have been affured by a phyfician, who practifed above thirty years in Turkey, that from the Danube to the Euphrates, he had never feen a gouty Turk. I have alfo been informed by fome of our minifters, who had refided many years in Conftantinople, that the gout, and other difeafes of the fame clafs were not uncommon at court; but the courtiers, it feems, were not as good Mahometans as thofe who lived in the country; for they drank wine, drams, liquors of all forts, without refaraint.

" I have also been credibly informed, that the Gentoos, or Mahrattas, a people of India, living in the most temperate fimplicity, chiefly upon rice, have no fuch thing as the gout, or indeed any other chronic difease among them." is either hereditary, or induced by the remote caufes, as before mentioned, then a fit of intemperance, excefs in venery, night watching, exceffive evacuations, &c. will often almost immediately bring on a paroxyfm of it* by fuddenly inducing great debility, and a morbid increase of excitability.

But, fays a Brunonian, most of your exciting causes are direct stimuli :---To be fure, an excess of them will induce debility; but then it will be of the indirect kind, in which there is never an increase, but always a diminution of excitability. What proof is there for this affertion? Dr Brown tells us fo.----It is true, he does; but his *ipfe dixit* by no means makes it fo.

Let us, however, for ourfelves examine the Doctor's accuracy on this fubject. By excitability, we mean that property in the animal œconomy, on which all powers act. In proportion as the action of these is more or less fensibly felt, we fay, that the excitability is more or lefs accumulated: their effect, is termed excitement. The Doctor has divided the excitement and excitability into a fcale of 80 degrees. Now this, like many other parts of his doctrine, appears to me very incongruous; for, according to him, there cannot poffibly be a tranfition from (we will fay) direct debility to inflammatory diathefis, except by a direct and uniform ascension through the point of health; nor to indirect debility, unlefs by a paffage through both thefe states.

* The reader will pleafe to remember, that all this may be done by hereditary difposition alone, independent of any evident external exciting saufes.—See page & &c. ftates. Thus a perfon killed by lightening, or a fot who drops down dead, while he is emptying his bottle, or a patient, whom, being at number — of debility, inftead of invigorating, you render weaker than he was before, by too powerful a ftimulus: all thefe must first, by regular gradation, have passed through the feveral intermediate states just mentioned; an idea equally repugnant to common fense and reason. His scale also teaches us, that where excitement begins excitability ends, and vice versa. Of course then they increase in a ratio exactly opposite to each other.

He tells us, that in difeafes of direct debility, the excitability is always greatly accumulated; and that we must begin their cure with small doses of stimuli, and gradually increase them: typhus and tetanus are claffed under this head. Now, who does not know that in tetanus, instead of commencing with gentle, we must begin and go on with the combined force of many, and those the most powerful stimuli, to effect a cure? And that in typhus, the excitability, inftead of being morbidly accumulated, is very often infenfible to the action of the greateft ftimuli? So infenfible is it frequenly, that flies have been feen to crawl over that tender organ the eye, without creating any uneafinefs. On the other hand, in phthifis pulmonalis, which he claffes under the head of indirect debility, instead of being diminished, is not the excitability often furprisingly increafed? So much fo, that we must begin with the most gentle stimuli, and gradually increase them ; them; and that the flightest exercise, as rocking in a cradle or coach, is neverthelefs highly ftimulating. And moreover, who elfe would fay, that the excitability is morbidly increased in hypochondriafis? Are not the ftomach and inteftines, in this difeafe, almost infensible to the action of emetics, and even of draftic purgatives? And is not the fystem in general in fo torpid a state as to be but little affected by the most powerful stimulants of every kind? But what we think will entirely overthrow this hypothefis, is the confideration of inflammatory difeafes. Here we have the Doctor's increased excitement. If, however, excitability is meafured by the degree of fenfibility to the action of ftimuli, who, befides him, will, after amoment's reflection, venture to fay that it is here diminished? Is not the fystem, or difeafed part of it, affected by ftimuli, whofe action would not have been felt before ?*

That the exciting caufes bring on a paroxyfm of the gout, and all inflammatory difeafes, not as the Brunonians would fuppofe, by gradually raifing the excitement above the healthy point, but by inducing debility, we infer firft, from many of these caufes being directly debilitating powers, as excessive evacuations, night-watching, fudden transition from rich to low diet, the cooling vegetables, as watermelons, cucumbers, &c. 2d. From the indubitable marks of debility to be observed in their forming stage, and after the exciting caufes have been applied.

* Thefe firstures apply especially to the scale prefixed to Dr Brown's Elements of Medicine.

3d.

3d. and laftly, From the good effects refulting from the administration of wine, laudanum, and other stimulants, at this time.

From thefe obfervations it might be fuppofed by fome, that the aid of the vis medicatrix naturæ, must be called in to extricate us from this feeming difficulty :--But no-we acknowledge not the power of this fuppofed goddefs; and have only to obferve, that in this ftate of debility, and increased excitability, the ordinary agents, as heat, light, the blood, fecreted juices, &c. which were before harmonious to the powers of the fystem, being now very difproportionate thereto, are the imaginary deity that will foon bring on the paroxyfm, unlefs a certain degree of tone and vigour be fuddenly given to the fystem.

Of the Proximate Cause of the Tonic Species.

I HAVE already faid, and I truft fhall clearly prove, when treating on the cure, that this fpecies is an inflammatory affection; and as all complaints of this nature, wherefoever fituated, muft depend upon the fame caufe, I fhall here deliver what I fuppofe to be the proximate caufe of inflammatory difeafes in general. I have, however, anticipated myfelf on this fubject, having already faid, that it confifts in an excefs of irregular action in the arterial fyftem. This term (firft taught us by Dr Rufh) I make ufe of in preference to Dr Brown's appellation of increafed excitement; becaufe, inftead of

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the general vigour being greater than ufual, we, for the most part, observe the energy of every part of the fystem, except the arterial, to be very confiderably diminished; fo much fo, that almost their whole force and power of action seem to be abforbed in that of the heart and arteries.

This is particularly the cafe with the functions of the flomach, inteflines, and mufcles of voluntary motion. I adopt the opinion of exceffive action as the proximate caufe: 1ft. From obferving the following fymptoms; as increafed heat, rednefs, tenfion, and a violent throbbing of the arteries. 2d. Becaufe by it I conceive all the phænomena of inflammation can be beft explained. 3d. Becaufe the direct tendency of the remedies by which the moft effectual relief is obtained, is to diminifh action.

Perhaps I may be blamed by fome, for not affigning fome occult caufe; as a lentor, or acidity of the blood, fpafm, &c. for the fymptoms of inflammation.

Such characters I shall leave to the proper enjoyment of their own opinions; and only observe, first, that all doctrines of this kind, though they may have flourished for a time, have at length been invariably refuted, and configned to oblivion.

That of Boerhaave has been fhewn by Cullen to be incompatible with the exercise of the most important functions of the animal œconomy. Nay, we are taught by the celebrated Mr Hewfon's experiments, that a state of the fluids, exactly opposite fite to what Boerhaave fuppofed, takes place in inflammation.

Boerhaave imagined the proximate caufe of inflammatory difeafes to be a lentor, or vifcidity of the blood. Mr Hewfon, in his Enquiries, has thewn that the blood, in inflammatory diathefis, is thinner than in health. Dr Cullen's doctrine of fpafm has likewife, I conceive, been ably refuted by Brown, and other eminent men. I might alfo bring forward many arguments in opposition to this doctrine; but, as they may all be found in Brown's Obfervations, and Dickinfon on Fevers, I will not take up any time in detailing them. I cannot, however, refrain from mentioning one fact which, I think is, of itfelf, fufficient to overthrow Dr Cullen's doctrine. The Doctor builds his hypothefis chiefly on the two following phænomena: Ift. A preternatural contraction throughout the whole arterial fystem. 2d. A stoppage of the pores. Now, inflammatory fevers have fometimes been observed to be attended with profuse fweats throughout their whole courfe. I observe, secondly, That, in my opinion, the doctrines of occult caufes, have been feldom or never productive of benefit, but very often of great mifchief to fociety. With what dreadful confequences must not a practice founded on the fuppofition of an acid in the blood, as the caufe, have been attended ? Of this I will briefly relate one inftance. A celebrated physician (I believe at Leipsic), being of this opinion, was feized with a pneumony ; and and inftead of making use of venæfection, he took large quantities of alkali to neutralise the superabundant acid. The confequence was—he died a martyr to his own ill-founded opinion. And I am bold to fay, that any physician, who, instead of studying, and being guided by the book of nature, is governed in his practice by the idle speculations of himself, or of other ingenious men, will, most probably, do much harm both to himself and those intrusted to his care.

Far—far be it from me, however, to fay that theory is ufelefs. Let us only be careful to make it fubfervient to experience, and found practice; and not make our practice fubfervient to it.

Though the theories of Boerhaave and Cullen were very different, yet their practice was nearly the fame. But fee the great, the fagacious Sydenham. Look at his theories. How abfurd were many of them! His profound and true knowledge, however, fecured him from being led aftray by them in his practice.

He contemplated the phænomena of inflammatory difeafes, and was fure that bleeding, purging, &c. were the most effectual remedies. He too, in these cases, supposed the human system to be filled with morbific matter. But when he drew blood, and by that means cured his patients, he contented himself with faying, that the morbific matter must certainly have flowed out at the orifice, and the good humours have remained behind !

Of

Of the Proximate Caufe of the Atonic Species.

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AS this fpecies is directly oppofite to the tonic, fo all the fymptoms of it evidently declare its proximate caufe to be deficiency of action. But it may be asked, if the inflammatory state, or re-action depends upon debility, why does it not take place here? To this question I answer, that though they both have their origin in debility; yet to produce this action, it is neceffary that the fibres should possess a certain degree of tone or vigour. Now, to me it appears, that, in habits fubject to the atonic gout, the conftitution of the fibres is fo feeble, either originally, as in women, from repeated attacks of the diforder, or from old age, as to render them not eafily capable of fuch re-action-I fay not eafily, becaufe it does neverthelefs fometimes occur.

For example, we know that cold is a debilitating power. Now, if two perfons, the one of a ftrong athletic, the other of a weak nervous conflitution, fhould chance to fleep in the open cold air, I can very readily conceive, though it would undoubtedly debilitate them both, that the former would be in danger of contracting a pleurify, the latter a typhus. Alfo, that if a ftrong man and feeble woman, both unaccuftomed to intoxication, fhould be made, as it is vulgarly called, dead drunk, by fpirituous liquors, the debauch might be fucceeded in one by an inflammatory, in the other by a ner-

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vous fever. Again, though the cold bath muft act in the fame manner on all human fyftems; yet it is a fact well known, that in fome it produces a glow on the furface and increafed action, whilft in others, it induces a diminution, and fometimes a total fuppreffion of action. Why? Becaufe, in the latter, the conflitution of the fibres is too weak to admit of a re-action.

I now come to the most important part of my fubject, viz.

THE C U R E.

I SHALL treat of the cure of each fpecies in diftinct chapters. And first,

Of the Tonic.

THE indications here are, in the first place, to alleviate and shorten the fit. 2d. To prevent a return of it. Our first indication is answered by all those means which tend to diminish excessive irregular action in the arterial system—These are bleeding, vomiting, purging, refrigerants, cold, &c.

Here we have again to combat the notions and authority of Dr Brown; for, in every inftance, he purfued a plan of cure, diametrically opposite to this, which we are about to inculcate. We prefume, that the Doctor fell into this error in confequence of his being ignorant, that most, if not

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all difeates have two ftages; and that of many difeates there are two diffinct fpecies—witnefs the gout and rheumatifm*.

Indeed, his claffification of difeafes indifcriminately into fibenic and afthenic, or difeafes of vigor and debility, appears to me one of the moft lamentable of all his errors; for when he fhould flarve, he muft inevitably often flimulate, and vice verfa.

But becaufe he has feen fome cafes of the contagious catarrh, apoplexy, gout, &c. attended with fymptoms of defective action, and cured by ftimulants, they must be always what he calls difeases of debility! Now, it is well known, that the apoplexy is asoften cured by bleeding as by any other means. But even the influenza of the autumn of 1789, as it appeared in this city, and other parts of our state, was to me an incontestible proof of the falfity of this doctrine. For though it was in every inftance called an afthenic difeafe by the Brunonians; and though they indifcriminately poured in ftimulants without meafure, neverthelefs, those physicians who paid more regard to nature than to the opinions of Dr Brown, and who, trufting a little to their own fenfes, faw the fymptoms as they really appeared, were abundantly convinced of its abfurdity:-For although, in fome cafes, there were fymptoms of defective action, which ftimuli relieved; yet, in many they observed a full tenfe pulfe, with other marks of excellive irregular action,

* This diffeovery has been likewife given to us by our eminent profefor, Dr Rufh, and has been fully afcertained by him in the courfe of his practice. tion, where bleeding, and the antiphlogistic plan in general was practifed with fuccess.

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Our first remedy, then, is

Bleeding.

AND for its recommendation we have the fanction of Lifter, Hoffman, Pringle, Small, Cullen, and M'Bride; all of whom recommend it, efpecially in the first paroxyfms, and in the young and vigorous.

Dr Rush has likewise witneffed its good effects; for he, but a few months ago, cured a patient labouring under a fevere fit by bleeding, and the anphlogistic plan in general.

Blood has fometimes been drawn to the extent of twenty ounces at a time in this difeafe. This was, however, certainly a very large evacuation, when we confider that it was taken from gouty patients: for though it might, and I dare fay, did put a ftop to the fit for the prefent, yet, we now know, that large bleedings difpofe to more frequent returns of the difeafe. And, except in young, vigorous conflictutions, we find the most permanent relief from topical bleeding.

Small, by the advice of Sir John Pringle, applied leeches to himfelf with great advantage: when leeches cannot be had, fcarifications with a lancet, or cupping, may be fubfitituted in their place.

The next remedy is

Vomiting.

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In favour of this evacuation, we have the testimony of M'Bride, Small, &c. The name of Small must be undoubtedly of the highest authority in the gout, when we reflect that he himfelf was most cruelly afflicted with it. After having by various means, and for a long time, vainly endeavoured to obtain relief, he, at length, to his great fatisfaction and comfort, made trial of vomiting, and found it attended with the best effects. He was first induced to make trial of an emetic by a frequent fickness at his ftomach: it brought away a greatdeal of bile, and relieved him fo much, that afterwards, whenever the gout feized him, he took one, by which there was generally a great deal of bile difcharged, both by the mouth and anus, and the violence of the difeafe was almost instantaneously alleviated. I think it, however, proper to mention, that Mr Small was of a ftrong athletic conftitution; and as even in this fpecies, the ftomach is often affected with atonia, I would be very cautious in the administration of emetics, and generally truft to naufeating dofes of ipecacuanha, tartar emetic, &c. For one great effect of vomiting is a determination to the fuperficies, which thefe nauseating doses abundantly promote. Even Mr Small himfelf, in flight attacks, found great benefit from the use of them.

The third remedy is

Purging.

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Purging.

It is true that Sydenham forbids it, but he condemns evacuation in general: his authority is, however, merely negative; for though he, without a doubt, obferved them in fome cafes to be injurious, yet we have many politive proofs of their good effects; and we know that even one politive proof is fufficient to overthrow an hundred negative ones. Gentle laxatives, or clyfters, are recommended by M'Bride, Small, and many other authors of eminence: and as a means to fubdue inflammatory action, we fee not the leaft impropriety in a cautious ufe of them; nay, if the patient be coflive, they cannot be difpenfed with :--Dr Rush, and other eminent practitioners of this city, have administered them with good fucces.

Sulphur has lately become a fathionable remedy in this complaint. It is either taken in fubftance, a tea fpoonful for a dofe, once or twice a-day, or elfe in what is called diffution in water, after the following manner :—To one pound of fulphur, finely powdered, and put into a ftone or earthen jar, add one gallon of water ; let it ftand for four or five days, ftirring it well two or three times a-day : at the end of the fourth day draw it off fine for ufe. Drink half a pint every morning, at leaft half an hour before breakfaft. Let the jar be ftopped clofe when you are not ftirring the mixture. This medicine conftantly keeps the habit lax, and very powerfully promotes perfpiration and urine; confequently confiderable benefit may be expected from the ufe of it in this fpecies of the gout, efpecially as it is fo fafe and fimple a medicine.

The fourth class of remedies are

Refrigerants.

THESE, particularly nitre, are univerfally allowed to allay inordinate heat, and diminish the action of the fystem. To enter into the investigation and disputes of the manner in which they produce these effects, the nature of my work will not admit; and indeed, it is fufficient for my purpose to know that they do produce them.

Further, as the good effects of nitre, in inflammatory difeafes, are fo well established by the most eminent of the profession, I can recommend it as an excellent remedy in this species of the gout.

The fifth remedy is

The application of Cold.

THERE has been as much diffute and contrariety of opinion on the fubject of cold, as perhaps on any other in medicine. Some phyficians make it a direct flimulant and tonic—others think they can account for its effects better, by fuppoling it now a tonic, and now a fedative : while others, again, make make all its operations the confequence of a deficient flimulus or fedative.

The confideration of these opinions would, of itself, fill a volume. Suffice it, therefore, to fay, that its good effects in the small-pox, measles, fynocha, phrenitis, tonic rheumatism, tonic gout, in short, in inflammatory difeases in general, are too well ascertained to admit of any dispute.

Dr Rush, in his lectures, tells us of a gentlemanin this city, who cured himfelf of a fit, by dipping the affected limb into cold water. But what more clearly proves the efficacy of cold in this difeafe than any thing effe with which I am acquainted, is the cafe of the abovementioned Mr Small. This practice appears to be well known and followed in the West-Indies, especially in Jamaica. For Mr Small having occasion to visit that island, was defired by Dr Nasimyth, an eminent physician there, to lay as a fide the application of flannel and oil-skin, to which he had been accustomed, and keep only a cotton stocking to his foot; telling him at the fame time, that experience had taught them, to keep gouty limbs cool in that country*.

For feveral paroxyims after Dr Naimyth's advice, Mr Small kept the affected limb cool, by which means the fits were always rendered fhort and flight. Having, however, at the inftance of fome learned, but prejudiced friends, neglected to make use of the abovementioned remedies, in a fucceeding

Mr Small's Obfervations on the Gout, may be feen in the 6th velume of the London Medical Obfervations and Enquiries. ing fit he fuffered a conftant and most tormenting confinement for feveral months; fo that in a fubfequent attack, difregarding their cenfure, (which he had like to have done too late) he again had recourfe to emetics, leeches, and cool air, thereby flopping its courfe.

So powerful indeed were the anodyne effects of cold in his cafe, that when he lay in bed at night during a paroxyfm, he could almost entirely divest himfelf of pain, by uncovering the affected limb. Small likewife makes mention of two other gentlemen afflicted with this difeafe, who experienced the fame falutary effects from cold air. Along with the above means, the patient must, for the most part, ftrictly obferve the antiphlogistic regimen, which confifts in carefully abstaining from all food (efpecially animal) and drinks of a ftimulating nature. The diet fhould confift chiefly of mild vegetables, and weak drinks; as water, flax-feed, mallows, baum, and mullen tea, or others as harmlefs; and at most should not exceed fmall beer, except the patient be aged, has been accustomed to very high living, or his ftomach is much troubled with dyfpepfia, when a little good wine, beef tea, &c. may be allowed; common whey has alfo been found by experience to be a very good drink in this difeafe.

Might fear be employed with advantage?—Yes, if judicioufly exercifed, I think it might; for many are the facts and obfervations tending to prove is debilitating effects. But, that it is beyond all controverfy a debilitating power, we infer, from the inconincontestible marks of debility invariably induced by it; as loss of appetite, loathing of food, fickness at stomach, vomiting, diarrhœa, dyspepsia, colic, tremors, &c.

Concerning topical applications I have very little to advance, only requefting caution in their ufe. For though bliftering, anointing with volatile and camphorated liniments, &c. have often affifted in removing the inflammation of the part, they have as often transferred it to fome more important one. This, however, I can fay, that anointing the part affected with molaffes, and covering it with foft cabbage leaves, have frequently been practifed with great advantage.

I have now made mention of all the means that I deem neceffary in behalf of our first indication; but before passing to the fecond, I feel myself conftrained to fay a few words on the use of opium in this difease. For, like cold, its virtues are by no means agreed upon among physicians. By some it is esteemed one of the greatest and purest flimulants in nature: others fay, that it contains within ititself powers both fedative and flimulating; while others again tell us, that it is altogether a direct and certain fedative.

As every thing that has a tendency to irritate the fyftem must be hurtful in inflammatory difeafes, fo the two first fects (if I may be allowed the expression) earnessly advise us to avoid the use of it in this class of difeases, as highly pernicious; while, on the contrary, those who advocate

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the last opinion, recommend it to us as a valuable remedy.

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In the pleurify, and other Athenic difeases, I believe it is pretty generally employed in Germany; and I have heard a respectable physician in this city declare, that he and fome other practitioners (whom he knew) employed it very freely in them. These facts, however, by no means prove its efficacy. We likewife know, that furgeons, when they are aboutt o perform, and after they have performed any capital operation, as that for the ftone, amputation, &c. always administer opium very liberally, to prevent inflammation; and that, in the fame circumftances, they would not, on any account, give their patients wine, fpirits, or any thing elfe which they deem stimulating. All this, however, to fay no more, is to me no proof at all; for it is as poffible for furgeons to be actuated by prejudice, and governed by fystem, as any other people; and, it is more than probable, they feldom or never gave wine, or other cordials a trial. But, for my own part, I confider this very practice, as an infuperable confirmation of the cordial effects of opium, and of the doctrine advanced in this differtation. For it is well known, that before lithotomy or amputation is performed, the fubjects of these operations are often in a weak flate; and that after the operation, they frequently fink through mere debility, or the confequence of it-inflammation.

Now, in this flate of debility, after the operation, they pour in their laudanum, which by invigorating

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the fystem, prevents the inflammation that otherwife might have enfued, and thus reftores the patient.

It cannot be expected that in this treatife I fhould enter into all the arguments on this fubject; fuffice it for the prefent to fay, that the English Hippocrates, Sydenham, in his practice found it to be a most excellent cardiac; and that from the writings even of the immortal Cullen himfelf, many facts may be collected which prove it to be a flimulant. Dr Rush, and many other eminent physicians of this city, have repeatedly with effed its invigorating power, to the great comfort of their patients, and their own fatisfaction. But what confirms it to me more than all is, that I have myself repeatedly obferved the fame.

It may be asked here, how can the very fuccessful practice of Dr Warner, who fuffered inexpreffibly from the gout, be reconciled to the doctrine of opium's being a stimulant? He, in the latter part of his life, made use of a watery folution of this fubstance internally; and fo great was the benefit he derived from it, that he counted the hour in which he discovered its efficacy as one of the most fortunate he had ever known. The Doctor's gout, however, evidently appears to me to have been of the atonic kind: 1st. Becaufe he was far advanced in life when he began to use it. 2d. Because he had been for many years troubled with the diforder. And 3d. Becaufe he alfo recommends, as from experience on himfelf, wine, and falt meat, which every F body

body knows are highly ftimulating. Upon the whole then, from what experience has yet taught us, I would advife my patients to use it very fparingly in this difease, unless there are evident marks of a mixed or defective action in the fystem.

I now come to the fecond indication, and here medicine can do little or nothing; our chief dependence is to be placed, 1ft. On avoiding all the remote caufes, efpecially in the fpring and autumn, when the paroxyfms generally occur. 2d. Temperance. 3d. Exercife.

As the paroxyfms may recur, in confequence of either direct or indirect debility, fo I would advife my patients to live on a diet, by which they may be preferved as much as poffible from falling into either of thefe ftates. For this purpofe, they muft avoid animal food, nor fhould they live entirely on vegetables, but on a diet compofed of a mixture of both. Such a combination is efpecially to be found in milk : and as vegetable matters, containing the greateft portion of nourifhment, the farinaceous feeds may be joined with milk; as alfo potatoes, turnips, &c. The drink fhould confift chiefly of water.

The great Dr Cullen affures us, that by timely abftinence, and conftant bodily exercife, the gout may often be prevented from ever appearing at all; and we know, from very good authority, that even after it has frequently recurred, it may be eradicated by a proper obfervance of thefe two grand agents. Dr Cadogan highly extols exercife; Dr Chalmers beftows great encomiums on it; and Mr Small, from experience, efpecially on himfelf, ventures to declare, that nine in ten of gouty cripples owe their lamenefs more to indolence, and fear of a little pain from exercife, than to the genuine effects of the difeafe. He made it a conftant rule to ufe active exercife, as foon as the inflammatory flate was paft; to which means he is firmly perfuaded it is owing, that he always, except during the paroxyfms, enjoyed the free ufe of his limbs, from the time the gout firft made its appearance in him, which was in the year 1753, to the time of writing his effay in 1780.

It must appear evident to every perfon, that walking is the most proper exercise in this complaint: However, if the patient is not able to walk immediately after a paroxysm, let him begin with the passive or mixed kind, as failing, riding, frictions, &c. But let him be particularly careful never to fatigue himfelf; for instead of preventing, he would, by so doing, be in danger of hastening on a fit. It will, I believe, for the most part, be found necessfary for our patients to live more or less after this manner, during the rest of their lives. For although we hear of some who have had no recurrence of this diforder, after continuing it only for a few years, yet in many the case is very different.

Of this Dr Rush, in his lectures, relates a remarkable case;—it was that of a gentleman not far advanced beyond the *acme* of life, who was in eafy cafy circumstances, lived high, and had for fome years been afflicted with the gout : this gentleman was fuddenly reduced, and caft into prison, while labouring under a paroxysm of it; and here his diet was very low; the confequence was, the symptoms immediately abated, and the fit was very fhort.

His affairs for feveral years after his imprifonment compelled him to live low, during all which time he had no return of his diforder: but fortune, that deceitful goddefs, having once more fmiled upon him, he relapfed into his former mode of good living, and was again vifited by its faithful companion, the gout.

I do not prefume to fay, that this courfe will be proper in all conftitutions; on the contrary, I am perfuaded, that to many who, in a paroxyfm, would require bleeding, &c. it will be often proper, in the intervals, with exercife, to administer aromatics, tonics, &c. fo that every phyfician must be guided by the fymptoms prefent, and not by the name of the difeafe.

I fhall conclude this effay with faying a few words on

The Cure of the Atonic Species.

AND this alfo very naturally divides itfelf into two indications; first, to relieve our patient in the fit. This indication is answered by a proper application of stimuli, especially the diffusible, as opium, volavolatile falts, gum guaiac. æther, musk, wine, &c. internally, and finapifms, blifters, or other ftimulating fubstances externally, to the feet, &c. The gum guaiac. has lately attracted the attention of all Europe, as a remedy in the gout. Its good effects in the chronic rheumatifm, have been well afcertained for a confiderable number of years; but I believe it was first recommended to the public as a cure for the gout, by Mr Emergion of St Pierre, Martinique : to give a minute detail of his practice and observations, would take up too much time; I therefore would refer to his letter on the fubject, which may be feen in Dr Dawfon's book of cafes in the acute rheumatifm and gout. His method was to digeft two ounces of the gum with three pints of taffia for feven or eight days; then to filter the liquor through cotton or paper, and take a table spoonful for a dose, every morning fasting : after the publication of his letter many people made ufe the guaiacum.

To fome it proved beneficial; others it manifeftly injured very much. In those inftances in which it proved injurious, I am inclined to attribute its failure to an improper and exceffive administration of it; or elfe to its indiferiminate use in every state and case of the gout. Now, such a practice, at least if our doctrine be true, it is evident, cannot but be attended with bad effects: I am for my own part perfuaded, that it will rarely be found useful, except in the atonic species of the difease, or in the intervals, when other stimuli are indicated. That the guaiacum is improper in the inflammatory flate, I do not reft, on bare affertion. That accurate obferver, and excellent phyfician, Dr Cullen, has known it repeatedly to prove very hurtful in it. I must, however add, that our professor of the Materia Medica, and many other practitioners, do not hesitate to employ the mixture of guaiacum, in these cases, as it proves a certain cathartic.

If the flomach is affected with vomiting in this difeafe, columbo root or other bitters are very good. Porter has fometimes put a flop to it. A plaifter of venice-treacle to the flomach is alfo a proper application.

Sydenham appears to have been converfant chiefly with this fpecies; and it is certainly in this that he recommends his heating and bitter ftomachies; as horfe-radifh, angelica, wormwood, elicampane, venice-treacle, Peruvian bark, &c. It must also be in this, that Dr Cheyne fo highly extols the bark, and chalybeates; and that Warner recommends wine, falt meat, &c. Here also, if at all, will Dr Brown's rum, whisky, and brandy be found useful.

For the fecond indication, exercife will be found indifpenfably neceffary—and indeed we cannot too warmly recommend it. Sydenham places great confidence in it, efpecially riding on horfeback; for this admirably, and according to him, more than any other exercife, invigorates the digeftive organs. If the patient cannot ride, let him make free ufe of frictions; and when able, he muft also often exercife his lower extremities by walking, &c.

Let him by all means remember, that all this muft be moderate; for if exceffive, it will be worfe to him than indolence itfelf. 2d. Solid and ftimulating food is very ufeful, as wild fowl, falt meat, beef, &c. The meals muft be fparing, but may be often repeated; his drink may be porter, fherry, Madeira, port, &c. but the ftomach fometimes rejects all thefe; when Dr Cullen tells us, ardent fpirits and water muft be allowed. To fupport the tone of the ftomach, aromatics and bitters may now and then be given—Peruvian bark is very good; but I believe iron will be found more effectual for this purpofe than any other medicine.

I fhall fay nothing of the numerous noftrums, that have been from time to time employed in this difeafe; I fhall even pafs by the Duke of Portland's famous powder, and juft mention that there are feveral cafes related in the Edinburgh Phyfical Effays, Vol. III. in which hemlock, an infufion of tanfey, and lime water, were feparately administered with feeming advantage.

If there is fufficient power in the fyftem, to produce a glow on the furface after it, the cold bath may likewife be employed with advantage.

It is highly neceffary for perfons fubject to the gout, efpecially to the atonic fpecies of it, to avoid wet feet and cold; which may be done, by wearing cork cork foals to their fhoes, and repairing to a warm climate during the winter feafon.

In the beginning of this treatife I have faid, that the gout counterfeits almost every difease to which the human body is liable; and have now to add, that in every appearance it is to be treated as symptoms indicate.

I had nearly forgot to mention one article of the higheft importance in this difeafe, I mean peace of mind; for as vexation has often a great deal to do in its production, fo Sydenham, Cadogan, and many other eminent men, fet down its oppofite as one of their principal agents, in an attempt towards a cure.

It might now perhaps be afked, why has fo little been faid on mifplaced and retrocedent gout? To anfwer this queffion, I would refer to the feventh page of this thefis; in which place I have faid, that the gout, wherefoever it appears, will be either inflammatory or atonic, except in a few cafes, in which a mixed action takes place. I have likewife faid very little on the ufe of blifters; and indeed, conceived it unneceffary to fay more than I did.

I will however just add, that when the gouty diathesis is in the habit, but the difease, instead of fixing on the extremities, flies about from one part of the fystem, to another, and perhaps lights on some internal part of great importance, the application of blisters, and of other stimulating substances to the lower extremities, may be advised to invite the gout thither. In the former part of this thefis I have faid, that a paroxyfm of either fpecies of the gout, when in the forming flate, may be often obviated by a proper application of flimuli; as wine, laudanum, &c. I likewife think, that electricity may be very advantageoufly employed for the fame purpofe. Indeed fome venture to make ufe of it as a remedy in inflammatory action; and Cavallo, in his Effay on Medical Electricity, tells us, that the gout has been certainly cured by it in various inflances, and that inflammations of every fort are generally relieved by it. As it is however known to be a very powerful flimulus, I would ufe it with great caution where there was excefs of action.

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In the fifteenth volume of the Medical Commentaries of Edinburgh, we have the cafe of a Mr Brifaud, who at different times had for feveral years been afflicted with gouty pains in his feet. On a certain day, while labouring under thefe fymptoms, he went out to hunt, and had occafion to pafs through a fmall marfh, in which there was about a foot, or a foot and an half of water; in this he was ftruck by a torporific eel, which produced a very violent commotion in both his knees: he, however, purfued his route; the pain foon fubfided, and when the account from which this fketch is extracted was penned, which was eight months after he had been ftruck by the fifh, he had not yet felt any return of it.

It would therefore appear, that electricity, if prudently employed, may prove useful, not only

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in preventing a recurrence of the paroxyfms.

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urning the affected part with moxa, when it can be done conveniently, has been often practifed, efpecially in the Eaft-Indies. And Herman Bufschof, a Dutch phyfician of the laft century, who refided at Batavia, in the Eaft-Indies, fpeaks of it as a certain and infallible remedy. Succeeding phyficians, however, have not been fo fuccefsful in its application, and Dr Cullen thinks very lightly of it. Thofe who with for particular information on this ful ject, may confult Buffchof's Treatife on the Gout.

Having concluded this differtation, I have only to bid a refpectful and affectionate adieu to this rifing feminary :—That fhe may long continue to fend forth her fons, eminent for learning and virtue—that her medical profeffors may long be an ornament to her, and fhine forth the brighteft luminaries of fcience—and that they may ever continue to be the patrons and promoters of medical knowledge, is my fincereft wifh.

THEEND.

was eight months after he wad been fimele by the





