An inaugural dissertation, on the rheumatic state of fever: submitted to the examination of the Rev. John Ewing, S.T.P. provost: the trustees and medical faculty of the University of Pennsylvania; on the 12th May, 1797; for the degree of Doctor of Medicine / by Edward North, of South Carolina, member of the Philadelphia Medical Society.

#### **Contributors**

North, Edward Washington, -1843. Woodward, William W. University of Pennsylvania. National Library of Medicine (U.S.)

#### **Publication/Creation**

Philadelphia: Printed by William W. Woodward, no. 17, Chesnut Street, 1797.

#### **Persistent URL**

https://wellcomecollection.org/works/k9xxfwvh

#### License and attribution

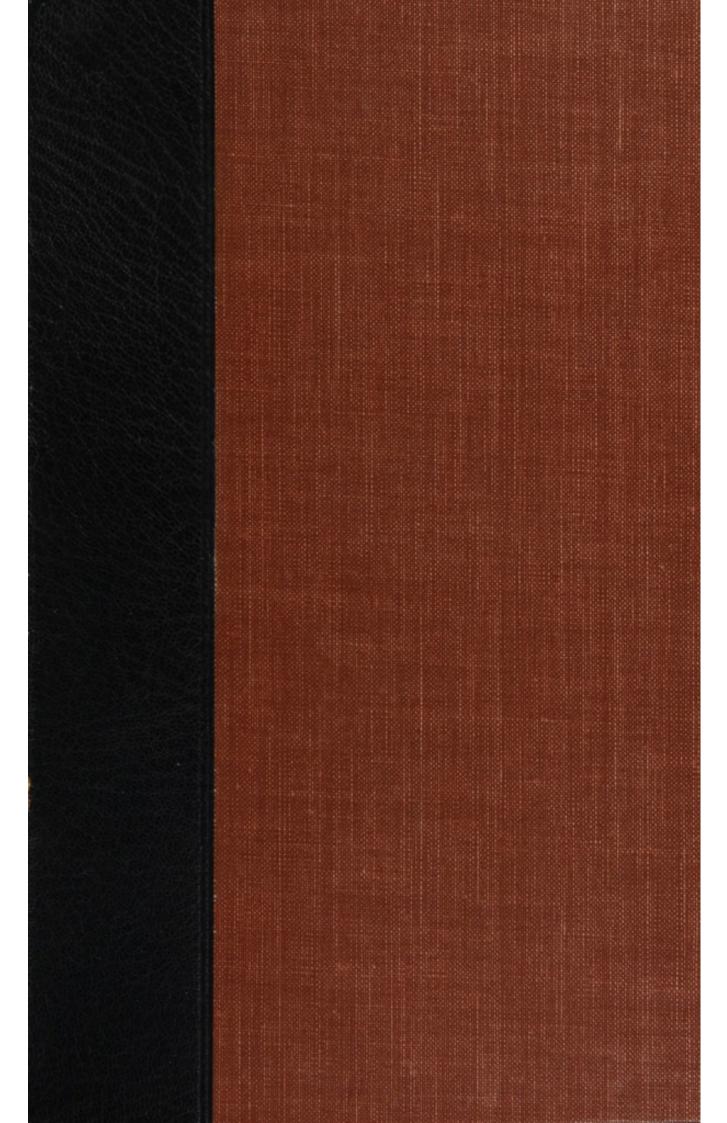
This material has been provided by This material has been provided by the National Library of Medicine (U.S.), through the Medical Heritage Library. The original may be consulted at the National Library of Medicine (U.S.) where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection 183 Euston Road London NW1 2BE UK T +44 (0)20 7611 8722 E library@wellcomecollection.org https://wellcomecollection.org



## NATIONAL LIBRARY OF MEDICINE Washington



Founded 1836

U. S. Department of Health, Education, and Welfare
Public Health Service





North (Ed)

AN

# INAUGURAL DISSERTATION,

ON THE

# RHEUMATIC STATE OF FEVER;

SUBMITTED TO THE EXAMINATION OF

THE REV. JOHN EWING, S.T.P. PROVOST:

THE

TRUSTEES AND MEDICAL FACULTY

OF THE

UNIVERSITY OF PENNSYLVANIA; ON THE 12th MAY, 1797.

FOR THE DEGREE OF

DOCTOR OF MEDICINE.3/2014

By EDWARD NORTH, of SOUTH CAROLINA, Member of the Philadelphia Medical Society.

PHILADELPHIA;

PRINTED BY WILLIAM W. WOODWARD, No. 17, Chefnut Street.

### DAVID RAMSAY, M. D.

THIS DISSERTATION IS INSCRIBED,

AS A TRIBUTE OF RESPECT AND ESTEEM,

FROM HIS

VERY SINCERE FRIEND,

AND

AFFECTIONATE PUPIL,

EDWARD NORTH.

### DAVID RAMSAY, M. D.

THIS DISSERTATION IS INSCHIBED,

AS A TRIBUTE OF RESPECT AND ESTIRM.

BIR MORE

VERY SINGERE FRIEND

das

AFFECTIONATE PUPIL

HTRONGRAWGE



## PREFACE.

IT is with diffidence that I now step forward in the literary world to advance a subject for public inspection; but such is the custom of this university, that it is always required of those in similar situations; and is at the present not to be dispensed with.

Conscious of my inability in this arduous undertaking, and the small experience I have had since the commencement of my studies, causes emotions not easily surmountable, but on restlecting that it is absolutely requisite, and not through choice, that I advance this inaugural, excites my proceeding to effect a consummation, as incorrect as it may appear to men of erudition.

My first propensity to imitation proceeds rather from motives of modesty than vanity, for perceiving how desicient I am in my own production, must endeavour to mend my com-

#### PREFACE

position by copying the capital strokes of others; so, therefore, hope it will not be deemed pre-sumptive; and shall, in as laconic and satisfactory a manner as my abilities will admit of, attempt an elucidation of the cause, symptoms, and method of cure of Rheumatism.

My first propositive to imitalion proceeds

wooded one that endeavent to seem my com-

#### AN

## INAUGURAL

## DISSERTATION.

To attempt a definition of a difease, on which so many illustrious characters have already entered, may in my youth and inexperience be deemed effrontery, for with regard to the history of diseases, whoever considers the undertaking deliberately, must be fully persuaded of the disadvantages that an early publication must labour under.

False theories in medicine, without the smallest shadow of support, in the place of theory well established, have hitherto much prevailed, particularly among authors of ancient date; most of their writings were sounded on hypothesis, and the result of a luxurious imagination:—The symptoms of diseases (where-

in their true history consists) as described by them, appear to be chiefly deduced from the same source. But happily for mankind in general, physicians, by their indesatigable diligence and perseverance, are daily convinced of the absurdity of the assumption of such principles as at one time prevailed among empyrics, unsupported by sacts and experience, and yet, on this weak soundation, attempted to regulate the conduct of their practice by the erroneous guidance of salse doctrines, which materially injured the public in general, and tended greatly to augment, rather than diminish, the pestilence of such diseases.

For the advancement of this noble science, posterity will ever conceive herself greatly indebted to the sagacious Sydenham, Hunter, Rush and others, who, by their perspicuity and perseverance in pursuit of knowledge, have drawn aside the curtain which obscured the various phenomena of many diseases, and developed for the benefit of their cotemporaries, as well as successors, all those genera or species of disease, as have been hitherto viewed as an obscure and intricate labyrinth.

But, even at this present age may we conceive ourselves infested by darkness, for innumerable are the obstacles with which we have yet to encounter, and much is still to be discovered, before we can arrive to that acme of perfection, which may enable us to extirpate a malignant disorder, with as much facility as a slight inflammatory fever may be eradicated, by depleting remedies, judiciously administered.

Nature's procedure in many diseases, is, in reality, so various, uncertain, and subtile, in the production of them, that the oldest and most experienced physician in existence, is scarcely adequate to the task of scientifically describing their different symptoms and proper method of cure.—In contemplating this, it is not to be supposed that an unexperienced student should attempt an investigation of any thing new, after the enquiries of so many eminent practitioners, for this would inevitably tend to lay him open to the criticism of a popular, who, perhaps, would not view its incorrectness with that favourable eye, which any in a similar situation may have reason to expect.

ace

#### OF RHEUMATISM.

Nosologists have subdivided this disease into two genera or species; to one is given the appellation of Acute, and to the other Chronic Rheumatism. The latter I shall at present make a few cursory remarks on, but the former shall be more particularly treated of in the subsequent pages of this differtation.

An attack of chronic rheumatism may always be distinguished by its consisting of obstinate pains of the joints, and muscular fibres, without any confiderable degree of pyrexia, and oftentimes totally destitute of it. When pyrexia occurs, it is attended with\* an excess of action in the fanguiferous fystem, but when no pyrexia occurs, a defect of action takes place, which most generally happens in the atonic state of it, and appears to be a stage between gout and the tonic state, and is sometimes remarked to be the sequel of the latter; but often occurs without it, attended with a continued stiffness and uneasy sensation in the part affected, which is promoted by viciffitudes of the weather, or on the diseased limb being put in the least motion.

The acute rheumatism is indicated by a chilliness and shivering, which are immediately succeeded by heat, restlessness and thirst, together with other concomitants of pyrexia, particularly by a frequent, full, and hard pulse;

<sup>\*</sup> There are two states of action to be observed in this disease, viz. tonic and atonic. If tonic, the antiphlogistic regimen must be pursued; but if atonic occurs, generous diet must be had recourse to.

in the course of a day or two, and sometimes sooner, the patient is afflicted with an acute pain in some one or other of the limbs, but more particularly in the wrists, shoulders, and knees, affecting those parts alternately, sometimes abating in one joint and becoming more acute in another, attended with excruciating pain, darting along the course of the muscles, which is always promoted by the action of them, leaving a redness and swelling upon the part last affected.

The pain in the joints after having continued for fometime, becomes extremely susceptible of touch, but when succeeded by a swelling, it seldom occurs that it has not a tendency to mitigate the pain, though it does not always entirely relieve, nor secure the joint against a return of it.

In the advancement of the disease, more considerable remissions attend the pyrexia,\* the urine becomes high coloured, and a lateritious sediment is deposited, which does not occur in the commencement of rheumatism. Though this disease evidently bears a strong analogy to all the other species of instammation,† yet it disfers from them essentially by

<sup>\*</sup> Cullen's First Lines, vol. 1.

<sup>+</sup> Ditto.

not terminating in suppuration, which almost never happens in rheumatism as often as in other inflammations, though it does fometimes take place, as is remarked by Storck; vide Ann. Med. 2.—There came a case, not long fince, under my own observation, that terminated likewife in suppuration, the fore that attended this, was extremely difficult to heal. This difease occurs at any season of the year, but more particularly in the fpring and autumn, and is much more prevalent in cold than warm climates. It generally makes its appearance in the spring, after the body has been much debilitated by extreme cold, and is chiefly confined to those in the prime of life, and of a robust, plethoric constitution.

In the winter, when the cold is confiderable, and permanent, it seldom occurs; but if heat and cold alternate, and the vicissitudes frequent, it is observed to affect persons of all ages, but if otherwise, seldom affects young, or persons far advanced in life, being generally confined from the age of puberty, to that of thirty-sive years, and to those who are of a sanguine temperament.

There are several different affections of rheumatism, which nosologists have hitherto considered as several species of disease, and conceived it of immense importance to discriminate one from another, as lumbago, when a violent fixed pain occurs in the vertebræ of the loins, reaching fometimes to the os facrum, attended with nephritic paroxyfms, but may be always diftinguished from this, by its not being attended with vomiting; and further, if the muscles of the back are put into motion by stooping, rifing, or contorting the body in any form whatever, with the smallest degree of quickness, the pain is greatly promoted; and sometimes so violent as to check the effort in performing such action, which, in nephritic complaints, very seldom, or never takes place.

If any acute pain is induced in the hip, and extends itself down the thigh, it is then termed is itself down the thigh, it is then termed is itself down the thigh, it is then termed if this nature evidently appear superstuous, I shall notice them under one general head, as it is incontrovertible that they all proceed from the same cause, viz. An excess of irregular action in the arterial system,\* as is consirmed by their concomitants, and especially by the colour of the blood extracted, strongly resembling that of persons in a pleurisy, which is universally acknowledged to be a highly inflammatory disease.

<sup>\*</sup> The opinion of the Professor of the Institutes of Me. dicine.

In an undertaking of this kind, I trust not on my own judgment, as this would be but a weak and uncertain foundation, to attempt a controversion of various opinions on this subject, but am actuated by the verification of daily occurrences, and practice has strongly confirmed the rectitude of this procedure; for the sagacious and more accurate observers of later date, have corroborated the propriety of this system, by advancing, for the benefit of mankind, all those cases which have come under their notice, together with the theory which was adopted to effect a cure, or at least a mitigation of this disease.

#### DIAGNOSIS.

In treating of the pathognomonic fymptoms of the rheumatic state of sever, it is essentially requisite to investigate minutely those occurrences, which particularly tend to characterize it from all other diseases, with which it is frequently blended by the young and unexperienced, as it has been often verified that an erroneous judgment in the nature of a disease has terminated with the most serious calamity, and blasted at once the reputation of the unfortunate practitioner. So, therefore, I shall attempt a definition of its symptoms, thinking that some facts here inserted, may be acceptable to

those, who may peruse these few sheets, as inaccurate as they are delivered.

This disease has been oftentimes mistaken for gout, though different in many respects, for in a recent gout the pain is seated in the surface of the ligaments, and is confined to the affected joint, whereas the pain in rheumatism shoots along the course of the muscles from one joint to another, and is greatly increased by the action of them.\* It varies also in this respect, that the pain attendant on gout is generally tearing, pungent, and threatens the bursting of the parts affected, which does not take place in rheumatism.

Rheumatic affections sometimes attack persons not oftener than once or twice throughout their lives, prove not very durable, and are in general easily cured, when judiciously treated; but the gout returns more frequent, proves more painful, continues much longer, and is remarked to be more difficult of cure. Exclusive of the above discrimination, the gout arises from some internal cause, and is generally preceded by slatulence, indigestion, or some affection of the stomach, and is confined to the smaller joints, rather than the larger. The

<sup>\*</sup> Hoffman, vol. 2.

parts affected are remarked to be more exquifitely susceptible of impression than rheumatic complaints,\* and the retrocession to the internal parts more common, creating there, affections more excruciating and dangerous.

Scorbutic and venereal affections are sometimes blended with rheumatism, but may be easily discerned from them by attending particularly to the concomitants of each. Scorbutic habits are always afflicted with a nauseous disagreeable smell from the mouth, attended sometimes with profuse hæmorrhages from the gums, and cutaneous eruptions in different parts of the body, which never happen in rheumatic cases.

Venereal pains are generally confined to the most centrical part of the affected bone, whereas rheumatism is well known to attack the joints more particularly, by which means it may be always distinguished from this disease. Having sufficiently enumerated the various symptoms incident to those diseases with which rheumatism is oftentimes consounded, I shall now proceed to consider the different parts requisite to effect a due completion of this differtation, as mentioned heretofore in the preliminary discourse.

<sup>\*</sup> Sydenham, vol. 1.

#### OF THE REMOTE CAUSES.

The remote causes are all those, which tend to induce debility in the fystem generally or partially. This debility is subdivided into direct and indirect; the former is brought on by the un" common abstraction of the natural stimuli, which keep up or support life, the latter by an undue application of them. Under the first class, or direct debility, may be comprehended. I. Cold, that this proves debilitating, I infer, 1st. From the excessive lassitude and languor which generally attends labour in cold countries. 2d. From its particular effects on the pulse, as the pulse of the Greenlanders beats only from forty to forty five strokes in the course of a minute, whereas that of persons who inhabit more fouthern latitudes, or live in a warmer temperature, beat from feventy to feventy five. II. Excessive evacuations of any kind, whether from the blood-veffels, bowels, or fkin; this is corroborated by a fact made mention of by Dr. Nisbett, which came under his own inspection, where the patient was attacked with violent rheumatic pains, from a long continued use of mercurial medicines. III. Moisture combined with cold has a very great influence in producing this difease, which is taken notice of by Sir John Pringle, who observes that "the interchanges of heat and cold, joined to the moisture inseparable from tents, could not but affect more particularly those constitutions less accustomed to the field; accordingly many were feized with inflammatory disorders of fundry forms," this is remarked by various authors, which I might adduce, but the authenticity of the above quotation renders it unnecessary, and I shall now proceed with offering a few curfory remarks on some of those caufes which come under the second order, or such as induce indirect debility; of these are, I. Heat; this, when applied in a moderate degree, proves gently stimulating, and conduces to a healthy excitement, but if excessive in degree, and long continued, proves a frequent cause of indirect debility, inducing languor and lassitude, particularly when combined with hard labour. II Violent exertion of any kind, when carried on so as to occasion fatigue, is likewise a very fruitful fource of rheumatism, hence the liability of failors and labourers to this disease. III. Intemperance in eating and drinking. Excess in venery, and also all fuch causes as produce debility in the fystem, directly or indirectly, have a great share in creating morbid excitement, or convulfive action in the arterial system.

#### OF THE PREDISPOSING CAUSE.

Rheumatism, like all other states of sever, I may say like all other diseases, depends upon pre-

disposing debility, and this, when once induced, occasions predisposition, which is attended with an increased excitability, or susceptibility in the system to receive impression, and as it is universally acknowledged that cold produces diminished action or direct debility, so, I think, we may the more readily explain the greater frequency of this disease in the spring season, after the excitability of the system has been much accumulated throughout the preceding winter, as whatever has a tendency to debilitate the body, leaves it much more liable to be acted upon by stimuli.

We may here infer the great necessity of proportioning stimulus to excitability, for it is a law of the animal economy, that disproportioned stimulus should occasion convulsive action, which oftentimes terminates in death. Dr. Stedman relates a case just in point, where he observes, that thirty drops of Laudanum produced death in a young man, who had been previously debilitated by the excessive evacuation caused by taking a vomit. Probably the exhibition of this at any other period, might have been an ordinary dose, and attended with no ill consequences, but on account of its being injudiciously administered, proved the cause of to unexpected and melancholy a catastrophe -There came, not long fince, a case under my own observation, of a similar nature, where blood-letting was administered to the amount

of only ten ounces, when the patient felt a difposition to faint, there was immediately ordered a glass of wine diluted with a small quantity of water to be given her, which she drank, and in the course of a short time after, was attacked with sever and delirium, which required several successive bleedings to subdue it.

These at once clearly demonstrate to me, the great disposition there is attendant on debility in the system, to receive impression; and points out to us, how circumspect we should be at all times, in considering the adjustment of stimulus to the state of the system.

Confiderable changes in the air are extremely prejudicial, whether from heat to cold, or vice versa. Most authors bear testimony to this; and those who have written on uniformly hot climates observe, that rheumatism or inflammatory diseases are seldom prevalent among the inhabitants of them. From this it appears that inflammatory diseases would as seldom occur in more northern latitudes, were they to adapt stimulus to excitability. But in lieu of this, how diametrically opposite do we find their conduct, for the vulgar are generally led away with an idea, that nothing affords them greater relief, after having become much debilitated by the extreme severity of the cold, than a few glasses of spirituous liquors, to warm and strengthen their stomachs, as they term it, as

well as to support life, and exhilerate their spirits.—How erroneous an opinion; as this alone, is oftentimes the origin of the most inflammatory diseases, that in fest mankind; for we are fully convinced that the disproportioned stimulus is by far too great, for the excitability morbidly accumulated by the exposure of the body to cold air.

#### OF EXCITING CAUSES.

It is contrary to the laws of human nature, that disease should arise in the system, after pre-disposition is effected, without the intervention of some exciting cause, for how frequently do we observe persons labouring under predisposition, and when no cause is applied to throw the system into convulsive or morbid action, generally called disorder, return to their former state of health, without any ill consequences attending thereon.

Physicians, for a series of years, imagined debility to be truly a disease, but some by more particularly attending to the nature and origin of diseases, have strongly eluded the fallacy of such doctrine, and clearly evinced to the world that it is no other than the true predisposing cause to the various denominations of the diseases which mankind are incident to.

Viewing the fystem, then, in a state of extreme debility, and its excitability greatly accumulated, we may at once anticipate the influence of the vernal sun, or any disproportioned stimulus applied. The effect of this must inevitably be that of occasioning morbid action, which is, as Dr. Rush happily expresses it, "the effence of a disease, whether situated in the arterial, nervous, lymphatic, or any other system."

The application of heat is a very frequent exciting cause of this disease, which is verified in children experiencing immediate pain in their hands and fingers on approaching the fire, after having them exposed for some considerable time to the cold, and which may justly be termed an inflammatory rheumatism, Stoverooms have frequently confirmed the truth of this affertion, when their temperature has been several degrees above that of the atmosphere, for the susceptibility of the system is at times rendered fo extremely acute, that any stimulus applied is sufficient to induce an highly inflammatory diforder; this has oftentimes occurred in hospitals, where invalids have previously laboured under chronic diseases, which have in the space of a very short time, terminated in the most acute inflammatory diforders, through the medium of no other cause, than the gentle stimulus of a warm room.

Spirituous liquors are a frequent fource of this disease, they have occasioned, and still continue to occasion, an innumerable train of ills to the human race. "They are, when immoderately used, to persons, what manure is to vegetation, which hastens the progress of the fruit, but destroys the plant." This disease, as well as most other inflammatory disorders, is too frequently the effect of that detestable custom, the excess of drinking spirituous liquors. For my part, I think a proportionate and moderate use of them, would, perhaps, be rather falutary than otherwise; but, as Zimmerman observes, there are but few men, who know how to use them with discretion. There are many other facts to prove in the most clear and decided manner, the prejudicial effect of hard drinking, but the above, I presume, quite suffices to corroborate my opinion.

#### OF THE PROXIMATE CAUSE.

It has been the occupation of physicians, for ages past, to investigate the nature and cause of diseases, and according to the discovery of the proximate, have they generally adapted their method of cure.

It was some time before they perfected an agreement among themselves, with regard to the proximate cause of this disease; for it was formerly held in opinion by Dr. Macbride. " That Rheumatism originated from a peculiar acrimony, nearly allied to the gout," and by many has been conjectured " to\* arise from a lentor of the fluids obstructing the vessels of the part affected," while Dr. Cullen has attributed it to a spasm of the extreme arteries, and is of opinion that " the most common remote cause is usually the same with that of other inflammations, not depending upon a direct stimulus." To confute the above doctrine, respecting acrimony being the cause of this disease, I need make only one observation, which is, there has never been discovered any thing like an acrimony existing in the fluids. That spasm does affect the extreme arteries, no one will deny; but it is as absurd to view this spasm of the extreme vessels as the cause of this disease, as it would be to impute the effusion of water that takes place in dropfy, as the cause, and not the effect, of primary fever. That it is an effect, needs no comment, as it has been strongly confirmed through practice, that effusion always fucceeds inflammation and irregular morbid action, but never occurs before the last takes

<sup>\*</sup> For a refutation of Lentor, I refer you to Cullen's Practice.

place, so therefore I shall, in the present case, relinquish the former opinions, which were founded upon the slight basis of fanciful conjecture and hypothesis, and assume that which may be explained and supported by fact and just reasoning. To the professor of the institutes of medicine in this university, do I conceive myself indebted for a more accurate knowledge of the proximate cause of this disease, as he has ascribed it to morbid action, affecting particularly the arterial system; which to me appears better adapted to explain the phenomena of rheumatism, than any hitherto advanced; and I shall hereafter adopt this principle, and regulate the method of cure accordingly.

#### CURE.

Having at length arrived to that part of my differtation, which particularly relates to the practice of the healing art, and which requires the greatest sagacity, and most serious deliberation amongst all physicians, I shall endeavour to point out the various remedies which have been generally found to be the most successful in rheumatism; and shall, in this particular, conduct myself agreeable to the nature of the preceding disease, as hitherto observed; though it is not to be supposed, that the remedies here laid down, will prove beneficial in all constitutions or stages of this disease; for after ad-

vancing a long detail and variety of them, we still find that the particular point in quest of by the reader, is either not mentioned at all, or too partially and superficially to serve his purpose, and must in the end have recourse to his own judgment, to extricate himself out of the immense difficulty in which he is involved; so, therefore, I would think it most adviseable for a physician to be wholly dictated by the indication afforded by a disease, administer his remedies accordingly, and make himself acquainted through what means the patient was formerly either relieved or injured, so as to avail himself of the one, and relinquish the other.

As the precursors of this disease evidently point it out to be an inflammatory disorder, requiring a strict attention to all the various antiphlogistic mode of treatment, the patient should be ordered to avoid all stimulating aliment, such as may have a tendency to aggravate the disease; for the period in which it is most prevalent, and the violent sever, which in general attends it, all denote the rectitude of this procedure to palliate its violence, and rescue the unfortunate patient from impending danger.

As the pyrexia attending rheumatism is the chief object to be attended to, I shall adjust the remedies requisite to the state of the pulse, and

condition of the fystem, as this should be the sole guide in attempting to effect a radical cure of all instammatory disorders.

In contemplating this, I need not hesitate one moment about the sirst remedy which should be had recourse to, and as the reduction of the excessive morbid excitement accumulated in the arterial system, is the most important consideration, I shall point out such means, as appear to me, in all cases, to offer the most speedy and certain relief, when judiciously administered. And first,

#### OF BLOOD-LETTING.

Bleeding has innumerable advantages over all the other different modes of depletion; for as Dr. Rush justly observes, in the fourth volume of his Medical Inquiries, that "it abstracts one of the exciting causes, viz. the stimulus of the blood from the seat of sever," and surther illustrates the advantages resulting from it, "by comparing it to the abstraction of a grain of sand from the eye, to cure an ophthalmia, when produced through that cause." The Doctor again observes, that "other depleting remedies are as indirect and circuitous in their operation in curing a fever, as vomits and purges would be to remove an inflammation of the

eye, while the grain of fand continued to irritate it."

It has been often enquired by physicians, what quantity of blood may be drawn in highly inflammatory fevers? In answering this, it, is to be observed,\* that in an highly morbid excitable state of the vessels, a very small quantity of blood will suffice to support an equable and just circulation, throughout the fystem; hence a greater quantity may be taken, when the blood vessels labour under this state of excitement and excitability, than otherwise; but as no restriction, with regard to time and quantity, can be here particularly expressed, I shall strongly recommend to all young practitioners, the guidance of the pulse, constitution of the patient, and state of the system, together with the following appearances of the blood, to regulate their conduct throughout the course of this disease. 1st. Dissolved blood. 2d. + Blood. of a scarlet colour, without separating into serum, or crassamentum. 3d. Blood in which crassamentum floats in the serum, partly diffolved, refembling the washings of flesh in wa-

<sup>\*</sup> Dr. Ruft makes mention of this in his lectures.

<sup>+</sup> I have seen a case of rheumatism, where the blood drawn was similar to this, and the patient was bled seven times after, before sizy or buffy coated blood could be produced.

bottom in yellow serum. 5th. Crassamentum shoating in the serum, which at first appears turbid, but soon after becomes yellow and transparent, by florid red particles being deposited on the bottom and sides of the vessel. 6th. Sizy blood, or that which is covered with a busy coat. These are facts which have occurred under my own notice, and are also corroborated by the observations of Dr. Rush, throughout his practice, and I am induced to believe, will never lead the most ignorant astray, if strictly attended to, particularly when bearing in mind, the indication of the pulse, as this is at all times of immense importance.

It is to be observed, that in the inflammatory stage of chronic rheumatism, as heretofore taken notice of, the above remedy is likewise to be strictly attended to; for the benefit which is to be derived from it, has oftentimes appeared under my own observation, as I have seen it administered frequently, and with the most salutary effect. As much as I applaud bleeding in many disorders, it is to be observed, that the application of the lancet is by no means advisable indiscriminately in a disease, for though it is a remedy so apparently simple in its effects, yet demands the nicest discernment to distinguish when it may be beneficial, and when detrimental; for in the hands of the judicious,

how admirable are its effects, but under the direction of the ignorant in many cases how prejudicial. For as Botallus observes, " it sometimes does no service, either because persons have recourse to it too late, or\* use it too sparingly, or commit some error in both these particulars," which is truly just, for if it labours under these disadvantages, how is it possible to judge particularly what benefit or mischief may refult from it, when administered thus, in cases which denote the highest inflammatory action; for if a disease requires three or four pounds of blood to be taken away, in order to perform its cure, and but one or two is abstracted, which proves fatal to the patient, it should not be supposed that the disease proved more destructive because bleeding was used; no, by no means, but because it was performed in an improper manner, and perhaps, too, at an unfeafonable time. Of the fecond, or

#### COLD.

The sedative quality of cold being generally allowed, its effects in this, as well as all other inflammatory diseases, must appear evident to

\* This I observed oftentimes in Charleston, South Carolina, during the months of July, August, and September, when there prevailed there, an highly inflammatory sever, which proved very destructive to many persons.—
Several physicians had recourse to copious bleeding, and

every one, and as it is our principal object to reduce morbid action, I think that this, after blood-letting has been carried to a sufficient length, fo as to leffen, and not reduce it altogether, is as well calculated to remove the remaining, when properly and judiciously administered, as any remedy with which we are acquainted. Its application, then, to any body that is of a higher temperature than itself, must be of course that of diminishing its power, and consequently moderating its action, which in this or any other inflammatory disorder, is a very defirable thing. The good refulting from the application of this remedy in the inflammatory stage of this disease is daily observed, and there came under my own knowledge, a few weeks ago, a case where the patient could at any time suspend an attack of this complaint in his arms and wrifts, by lying with them exposed to the cold air, for a short space of time, and could almost as uniformly create a return of the paroxysm, by covering his arms, and keeping them warm for a few moments.

Cold water applied to the affected part with a napkin, has been found very serviceable in this disease. The cold bath has been much ex-

the depleting plan generally, with almost uniform success, while others, who bled more sparingly, found it rather prejudicial than otherwise.

tolled in the chronic stage of rheumatism, but was, and is even at this day, by some used as a tonic, but how shall we reconcile this with the preceding part of this paragraph, where we mentioned the fedative effects of cold, or its producing direct debility? I answer "by this debility being attended with an increased excitability of the fystem, and by the exposure of the body, when it comes out of the bath, to the atmosphere, which being generally greater than the temperature of the body, produces an increased excitement and temporary fever." The administration of this remedy fometimes does harm, when not properly used; hence the frequent head aches, that attend the improper application of it. When the debility induced, is too great for the farther use of the cold, the warm bath may be fubstituted in its stead, and with advantage. Dr. Sydenham looked upon it as absolutely necessary to keep his patients, in all inflammatory diseases, cool, and in order to effect this, he allowed them to fit up every day, a few hours, out of bed, as their strength would permit, and conceive it of great confequence in rendering the loss of blood, and other cooling remedies more fuccessful in their operation, Of the third, or

#### PURGES.

Costiveness, generally so natural an attendant on most inflammatory diseases, requires as well in this, as all others, our most serious attention, and to obviate which, we think a very requifite part in the cure of all diforders, depending upon inflammatory action. I am aware, that purging will be objected to by fome, owing to the violent pain promoted by the least motion; but notwithstanding that, I think, when we can conveniently administer them, they ought most certainly to be had recourse to, for they have feldom, when of a mild nature, failed to afford some relief. I have seen very drastic purgatives, tend rather to induce a return of this disease, than otherwise; while the more cooling, fuch as fome of the neutral falts, have always had a contrary effect. As we are defirous to reduce morbid action, and where we are not at full liberty to use the lancet freely, either through the fears of our patient, or the prejudice of his friends, we must then resort to this mean, at the same time being aware "that while cooling laxatives may be of great utility, drastic purgatives strictly so called, may prove as detrimental.

\* Mercury has been recommended in this disease, but, I believe that it affords little or no benefit, except in the purely chronic stage, in which, when a gentle salivation is induced, the patient most generally finds some advantage from its application. I have seen the mercury used also in the form of an ointment to the affected part, when the pain was permanent, and with the same good resulting from it. Of the fourth, or

#### SWEATING.

This has been strongly recommended by many approved authors, in lieu of bleeding, and is still pursued by physicians in general; its application has sometimes proved beneficial under the direction of many, but often terminate in the most serious calamity, as it requires the greatest caution and sagacity in the administration of it.

But certain it is, that there are some particular stages of a disease, which denotes the propriety of it, and in some instances of rheumatism, may be administered with considerable advantage, after the morbid action of the system has been sufficiently subdued, by the exhibition

<sup>\*</sup> For particulars on this head, I refer to Rush's Enquiries, vol. 4.

of copious blood-letting, or other depleting remedies.

Notwithstanding the benefit resulting from this, it is to be particularly remarked, that, if a diaphoresis is thought requisite, it should always be excited with as diluent medicines as possible; as those of the slightest stimulant nature, have oftentimes proved more prejudicial to the patient than otherwise. In regard to perspiration\* being by many preferred to bloodletting, I must acknowledge it does not altogether appear to me fo advantageous as they affert it to be, for I have the incontestible proof of practice on both fides to corroborate my opinion; as I have frequently remarked in instances which came under my own inspection, that persons who laboured under highly inflammatory diforders, for feveral days fuccesfively, after every thing of a diaphoretic nature was had recourse to, have lost only ten ounces of blood, when a profuse and almost instantaneous perpiration has enfued, and relieved the patient from his oppressive malady.

<sup>\*</sup> Perhaps their fuccess in a great measure, after contending with an inflammatory disease for several days in this way, may be preserable to the other mode, because many find it difficult to divest themselves of prejudice, and of course, by never experiencing its virtues, are strangers to the benefits resulting from it.

In the administration of diaphoretics, we should keep in mind the necessity of producing an universal perspiration, and be careful at the same time to continue the sweating stage as long as may be requisite, for by too precipitately checking it by means of cold, we often occasion all the disagreeable consequences, which generally attend an obstructed perspiration. In effecting this, the patient should be directed to partake plentifully of such diluents, as are generally recommended in the like cases, for these always tend to render it more essications and safe. Of the sifth, or

#### BLISTERS.

With respect to blisters, I have but little to say, and shall only observe, that they ought never to be employed, when there remains much morbid action in the system, for the stimulus occasioned by them, frequently does harm. Their application, when the pain is sixed to any particular part, is of great utility, provided they are used at a proper time. When the morbid action is nearly subdued, blisters act like a charm, in substituting their own action, and dissipating the natural pain of the body, and in all such cases, they ought most certainly to be had recourse to.

To the Professor of the Institutes of Medicine, am I greatly indebted, for most of the principles here laid down; and were I to conclude this differtation before acknowledging my obligations to one fo deferving, as well as to all the professors of this university, I should deem myself unworthy the advantages I have derived from their lectures ;-- So, therefore, I conceive it a duty incumbent on me, to folicit the acceptance of my most fincere thanks-the only means of recompence. To relate the particulars of all your meritorious performances, for the promotion of this science, together with fuch opinions as you have clearly demonstrated in your lectures, would require the praises of an abler pen. May you continue a living incitement to those principles, which celebrate the present age. May all who do themselves the pleasure of attending this university, be more auspicious and assiduous in exemplifying and putting into practice, all fuch just principles, as you have instilled into their young minds-and may the fostering hand of the Supreme Being ever attend, cherish, and support you in this present, as well as life to come, is my most ardent wish.



Med. Hist. WZ 270 N863: 1797

