

Outlines of a course of lectures on the practice of medicine : as delivered in the medical school of Guy's Hospital, / By William Babington, ... and James Curry.

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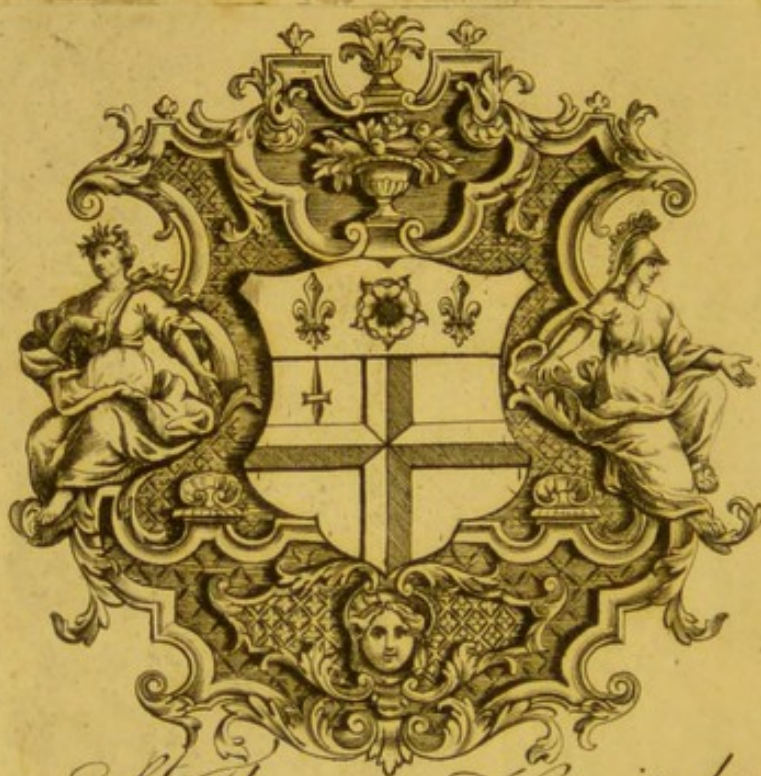
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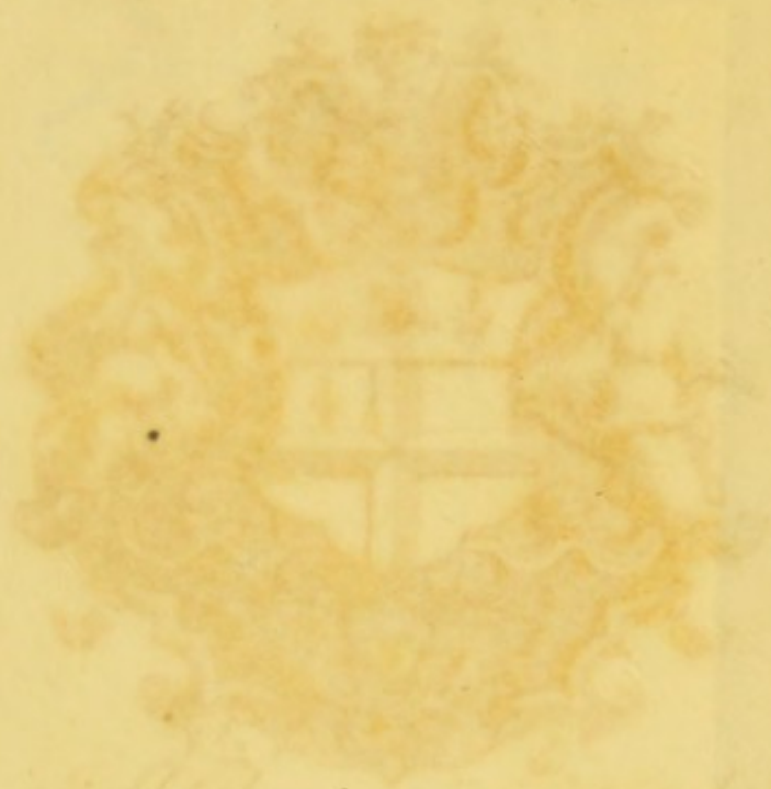
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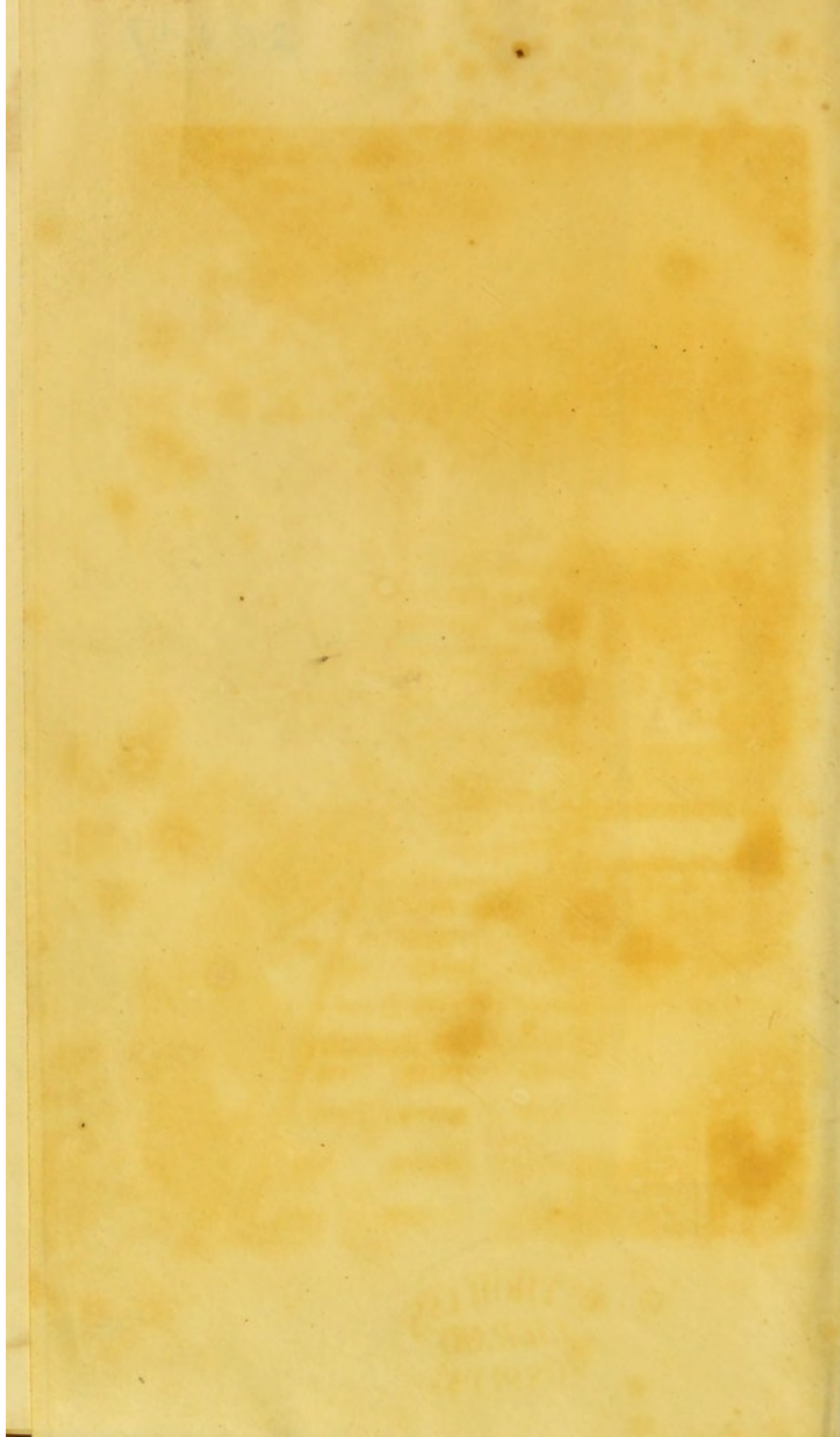


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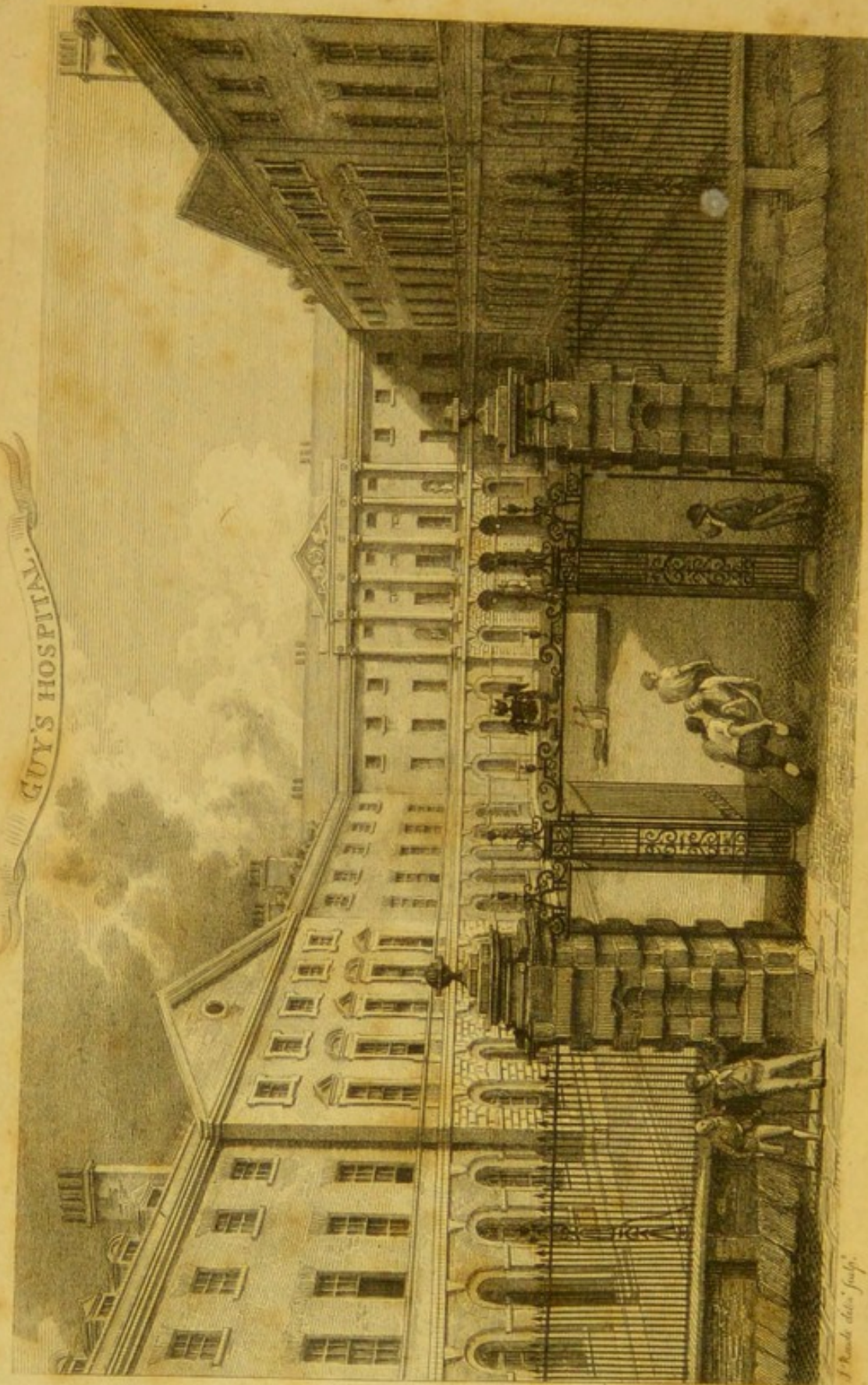




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OUTLINES
OF
A COURSE OF LECTURES
ON THE
Practice of Medicine,

AS DELIVERED IN
THE MEDICAL SCHOOL
OF
GUY'S HOSPITAL,
BY
WILLIAM BABINGTON, M.D. F.R.S.;
AND
JAMES CURRY, M.D. F.A.S.
PHYSICIANS TO THE HOSPITAL.

Forsan et hoc olim meminisse juvabit. VIRG.

London:
PRINTED BY T. BENSLEY, BOLT COURT.
1802-6.



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Tom HBS



TO
WILLIAM SAUNDERS, M.D. F.R.S.
&c, &c, &c.

THE FIRST INSTITUTOR,
AND STILL THE KIND FRIEND AND ADVISER,
OF

The Medical School of Guy's Hospital ;

THESE OUTLINES ARE DEDICATED,
AS A SMALL TESTIMONY
OF THAT RESPECT, ESTEEM, AND GRATITUDE,
WITH WHICH HE MUST EVER BE

REGARDED BY,
HIS SUCCESSORS, AND OBLIGED SERVANTS,

WILLIAM BABINGTON,
AND
JAMES CURRY.

WILLIAM EAGLETON, M.D.

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SYLLABUS

OF

A COURSE OF LECTURES,

&c.

1. DISEASE commonly defined to be,—*any variation from the most perfect and healthy state of the several organs and functions of the living body.*—Such definition shewn to be too general;—few if any persons having every organ and function in the most perfect state.—Remarkable disparity between mental and corporeal powers in the same person, shewn in the examples of many celebrated men.—Considerable variety even in *bodily* functions, compatible with health.

2. *Health and Disease*, then, *relative* rather than *positive* terms;—and respect the individual as compared with the generality of men, and with himself at different times.—Practical definition of disease,—*An uneasiness, —excess,—or defect, in one or more of the functions of the body or mind,—recurring so often, or continuing so long, as to demand medical assistance.*

3. Organs of the body numerous, and their connexions various;—of course, many different *forms* and *degrees* of disease,—each requiring appropriate treatment.—Hence the necessity of accurately distinguishing them from each

other by certain *signs* or *characters*; which constitutes the science of *Nosology*.

4. Different modes of arrangement proposed by different Nosologists,—each possessing certain advantages.—Dr. Cullen's arrangement preferred, as being on the whole most adapted to practical application.—General outline of this, with remarks upon its merits and defects.

Of Fever in general.

5. Fever the most general of all morbid states;—being common to both sexes,—to every period of life,—and to all climates and countries:—hence Sydenham's calculation of the proportion who die of it, probably underrated.

6. Has claimed the attention of practitioners and writers in all ages.—Opinions concerning it, of course, very different.—Very universally, however, divided into *primary* and *secondary*;—the first arising from general causes, operating on the body at large;—the other depending on inflammation or other local affection:—hence distinguished into *Idiopathic* and *Symptomatic*.

7. General symptoms of *Idiopathic* Fever;—increased frequency of pulse,—preternatural heat, preceded by sensation of cold,—feeling of languor, lassitude, and general uneasiness:—pain of head, back, and limbs:—memory and judgement confused and indistinct;—senses of taste, smell, touch, &c. altered or impaired:—want of appetite,—defect of saliva,—thirst;—discolouration of the tongue;—respiration frequent and anxious:—changes in the urine.

8. Many other symptoms occasionally attend;—but

those enumerated *general* and *characteristic*.—Great variation even in these;—hence a desideratum to ascertain some *one* as *characteristic*, and *always present*.—Reasons why we ought not to expect this —Pain the only symptom that of itself amounts to disease;—but pain common to almost every disease; so that when *alone*, it requires a *negative* character to distinguish its nature.

9. Useless to state the various notions entertained respecting fever by different writers, from the time of Hippocrates down to the present age.—Boerhaave the first who investigated the subject rationally:—found *three* symptoms to occur in every fever during its course, viz.—chilliness,—quickened pulse,—and increased heat;—but fixed on the *second* of these as the *single essential* symptom uniformly present.—His error pointed out.—Slight chilliness often passes unnoticed by patients:—frequency of pulse readily ascertained, and therefore seldom overlooked by the physician;—but not *constantly* present.

10. Increase of heat considered by the ancients as the characteristic of fever—proved by their names πυρετός and *febris*;—and certainly necessary to complete the febrile paroxysm,—though often absent for some time.

11. *Chilliness*,—*quickened pulse*,—and *increased heat*, then, common to *all* idiopathic, and to *many* symptomatic fevers, especially at their commencement;—and generally occur in the order mentioned.—Objections to this noticed.—Singular case related by Morgagni.—Exacerbation of remitting fever often without *chilliness*;—but the disease then fully formed, and approaching to the state of continued fever,—which may be considered as having only *one* paroxysm during its course.

12. Another symptom, not less essential to idiopathic fever, is—*general uneasiness*, pervading every part:—this strongly portrayed in the countenance in some fevers;—in others shewn by perpetual restlessness and change of posture.

13. Difficulty attending *definition* of disease, from the different views of writers and teachers respecting it.—A strictly logical definition perhaps impossible.—Practical distinctions alone of use; and disease to be characterized only by the *concourse* and *succession* of symptoms.—Illustration of this in the examples of small-pox, measles, and epidemic catarrh.—Accurate distinction particularly necessary in febrile disorders, from the great variety of their kinds, and from the appropriate treatment necessary even in the different stages of the same case.—Efficacy of opposite remedies reconcileable with the belief of there being something in common to all fevers.

14. Difficulty of framing any definition,—or *short character*,—which will include every variety that may occur:—yet such character necessary, especially for the young practitioner, till rendered familiar with the varieties in fever, and expert in distinguishing them.

15. Paroxysm of intermittent the most perfect example of the febrile state, both in distinctness and order of symptoms.—Description of its symptoms:—indolence—yawning—and stretching;—diminution of muscular force;—paleness and dejection of countenance,—hands cold to the touch;—features contract, and extremities shrink, and become livid;—constriction of skin, producing *cutis anserina* and *horripilatio*: *feeling* of general coldness,—and soon after actual diminution of tempera-

ture—accompanied with frequent chills,—and occasional shudders,—which become more frequent and considerable,—and at last end in universal shaking.

16. After longer or shorter continuance of cold and shivering, the heat gradually returns, and rises even above 98° , though the patient still feels a sensation of cold; but soon perceives transient flushings,—beginning in face and neck, and alternating with chills,—but gradually extending, and growing more considerable and universal, and at last becoming dry burning heat all over, with great restlessness, and often violent head-ach.—During this progress in temperature, the surface not only acquires natural colour, and shrunk parts their usual size, but become even redder and more turgid than natural.

17. Lastly, moisture begins on face and neck; gradually extending, and becoming general perspiration or sweat.—As sweat flows the heat abates; and when ended, body restored to natural temperature, and functions in general to *nearly* their usual state.

18. Symptoms enumerated (15, 16, 17) as constituting entire paroxysm, obviously divide themselves into *three stages*, viz.—cold,—hot,—and sweating stages:—these accompanied by various other phenomena, that illustrate the several changes, and throw light on the nature of fever in general.

19. Torpor of brain and nerves during cold stage—shewn by diminished sensation of eye, ear, taste, touch;—by impaired state of recollection and judgement;—by state of pulse at first slower, always weaker than ordinary, and often irregular;—by diminished secretion,—want of saliva,—scanty, colourless, and inodorous urine;—dryness of issues, ulcers, &c.;—by short and anxious

respiration ;—by loss of appetite, and occasionally sickness and vomiting.

20. With return of warmth, sensibility also returns, and becomes even more acute than before, especially to light and noise :—ulcers and other diseased parts grow more painful.—Mental faculties also restored ; but thought hurried and confused, sometimes even to delirium ; and patient's attention absorbed by his general sufferings.

21. Pulse in the mean time becomes regular, distinct, and full :—in robust habits, or when pain or inflammation attend, often hard ;—but still frequent, though less so than in cold stage.—Respiration also more free and full,—but still rather frequent and oppressed, till sweat takes place, which carries off the heat of skin, and with it the restlessness and oppression of breathing.

22. Such the assemblage and train of symptoms that *usually* occur in intermitting fever ; but subject to great variety both in degree and number.

23. Change in urine also requires notice, as anciently connected with theory of *concoction* ; and still much attended to by some, as assisting to form judgement of solution or termination of the disease :—Urine during cold stage, nearly devoid of *colour*, *smell*, or *taste*,—and shews no cloud or sediment on standing.—As heat comes on, arterial action increased, and urine assumes high colour ; but is still scanty and without sediment.—But when sweat has continued some time, and arterial action abates, the colouring matter deposited in red or *lateritious* sediment.

General Division of Fevers.

24. Fevers variously divided; ex. gr. 1. into *endemic*, *epidemic*, and *sporadic*;—2. from their causes, into *marsh* fevers, *contagious* fevers, &c.:—3. from nature and violence of their symptoms, into *inflammatory*, *bilious*, *nervous*, *putrid*, and *malignant*;—4. from the greater or less distinctness of their paroxysms, into *intermitting*, *remitting*, and *continued*, fevers.—Explanation of these terms:—all have their use; but several too vague to found any distinction upon.—*Endemic*, *epidemic*, and *sporadic*, occasionally applicable to most fevers.—*Putrid* and *malignant* not exclusively appropriate to any one kind.—*Intermitting*, *Remitting*, and *Continued* the least ambiguous denominations: these again distinguished by their particular symptoms.

25. Explanation of the terms *intermitting*, *remitting*, and *continued* fever.—Chilliness at each exacerbation not necessary to constitute true *remittent*.

26. *Continent fever* of authors,—their description of it.—Its existence denied by Cullen, De Haen, and the best modern authorities,—and in itself shewn to be improbable.

27. Individual nature of idiopathic fever argued from the spontaneous change of quartan into tertian,—tertian into quotidian,—quotidian into remittent,—and remittent into continued fever;—together with the reverse of this.—Such changes, however, when complete not merely spontaneous; but occasioned by the operation of their respective causes, as heat, contagion, marsh-miasmata, &c.—Dr. Cullen's observations on this subject, and his candour pointed out.

General Causes of Fever.

28. These usually divided into *remote* and *proximate*.—The former again distinguished into *predisposing* and *occasional*.—The *predisposing* rather facilitate the operation of the *occasional*, than of themselves capable of inducing fever; such are—*constitution*,—*errors in diet*,—*fear*,—*cold*, &c :—while the *occasional* seldom fail to excite fever, when applied in a high degree; however slight the predisposition,—*ex. gr. marsh-miasmata*, and *contagion*.

29. This distinction useful, though not always clear;—several of the *predisposing* causes being, in certain cases, capable of inducing actual fever;—while the *occasional* ones sometimes lie dormant, till roused into activity by the accidental occurrence of fear, cold, grief, &c. which thus become *exciting* causes.

30. *Original constitution*—marked especially by *vascular* irritability :—much aided by a certain cachectic state of solids or fluids,—as scrophulous and scorbutic, occasioning acrimonious state of the secretions, especially of the intestinal canal.—Proofs of this in the rapid progress and malignant form of febrile state in such persons, even when arising from common causes.—Hence certain denominations of fever, such as—*gastric*,—*intestinal*, &c. used by some authors.

31. Certain constitutions, though not marked by any external signs, appear peculiarly liable to be affected by *particular* causes of fever.—Daily examples of this in the instance of *contagion*.—Remarkable example of the same with respect to *marsh-miasmata*, in the case of two young physicians.

32. *Plethora* and *inanition*, though directly opposite, yet both favour the operation of certain causes of fever;—*plethora* predisposing to fevers of the inflammatory and bilious kind,—while *inanition* predisposes to *intermittents*, and to the *low* or *nervous* fever from contagion.

33. *Errors in diet*—Excess in animal food predisposes to fevers of high action;—while vegetable food, especially if poor in kind, favours those of the intermitting and contagious sort.—Effects of these different kinds of food considerably dependant upon original constitution, and also upon present habit of body;—so that each may be useful under certain circumstances in preventing fever.—These circumstances pointed out, and the kind of food and management proper under them, shewn.—Food of difficult digestion universally injurious:—exemplified in the *tertile* state taking place after its use in delicate persons,—and in that which follows a debauch even in the strongest.—Power of *custom* in lessening the effects of excess in the use of strong liquors:—hence temperate persons more liable to fever from *occasional* debauch, than habitual drunkards are.

34. *Sudden or considerable alternation of temperature*—of all others the most frequent cause of feverish indisposition of the catarrhal kind, especially in this variable climate: hence the denomination of a *Cold*, usually given to such indisposition.

35. *Cold* merely a relative term, and strictly signifying a greater or less privation of HEAT;—but its meaning in ordinary language founded on the common feelings of men,—and therefore, as far as respects the living body, must be referred to these as a standard.

36. The living human body endowed with power of

generating or evolving a degree of heat considerably above the ordinary temperature of the atmosphere;—and, during health, this degree is pretty uniformly 98° of Fahrenheit, though external temperature varies greatly.—Hence evident power in the body of *regulating* the evolution of heat, according to the demand made from without.

37. In physical sense, every temperature of the air or other surrounding medium below 98° , might be denominated *cold*; but not so with regard to feeling and to health; and a degree much lower, viz. from 60° to 70° , the most grateful and invigorating.—This wisely ordered to suit the *general* temperature of the habitable globe, and to allow the evolution of heat consequent upon man's exertions, and necessary to his well being.

38. General denominations of temperature:—From 60° to 64° admits with ease and safety every exertion necessary either to man's subsistence or pleasure; hence named *temperate*:—the higher degrees up to 70° , called *warm*; and all above that, *hot*.—Of the inferior range, a few degrees under 60° is termed *cool*;—and all below, *cold*.—Considerable difference, however, among men in health, in assigning names to particular *degrees* or *portions* of thermometric scale,—according to their respective power of evolving heat, as depending on original constitution, and on habit.—Illustration of this in the effects of sudden and considerable change of *climate*, or of temperature.—The *natural* power of regulating animal heat limited; and change to be safe should be gradual.

39. Power of cold on living body twofold, viz. *absolute* and *relative*.—*Absolute* power of cold that by which

it uniformly tends to reduce the temperature of the body below the standard of 98° , by abstracting heat faster than it can with ease be evolved. — Balance readily maintained at temperature of 60° , — but very low temperatures exhaust the calorific powers. — Example of this *partially*, in *frost-nipping*; and *generally*, in death of whole body, from intense cold; — proving, that animal heat is not merely a *chemical* process, but depends also on the *living principle*.

40. *Absolute* and *relative* power of cold, or its *sedative* and *stimulant* effects, illustrated by the operation of the cold bath upon a *delicate* and upon a *vigorous* man: — producing in the latter glowing warmth and increased strength; — in the former chilliness and shivering, followed by burning heat, — in short, febrile paroxysm.

41. Such paroxysm the simplest example of febrile state: — generally subsides like *ephemera*, — or if it remain, assumes the continued form of *catarrh*, with inflammatory constriction of exhalant vessels, and diminished discharge from skin. — Explanation of common opinion — that such feverish state depends on the *perspirable matter* being retained.

42. Similar febrile disorder the usual consequence of a person being exposed in quick succession to *air* of considerably different temperatures, especially by change from *hot* to *cold*. — Is generally accompanied with local inflammatory affection of one or other part, according to circumstances of exposure, or particular susceptibility; — occasioning different degrees and forms of *catarrh*, — *ophthalmia*, — *angina*, — *pneumonia*, — *rheumatism*, &c.

43 Morbid effects of cold greatly increased if applied to the body when overheated and in copious perspiration.—Hence the serious disorder often caused even by grateful coolness of atmosphere under such state of body;—but mischief still more violent when the transition is sudden and great,—as from drinking very cold liquors.—Examples of this from Dr. Rush, with the most effectual means of lessening or preventing the dangerous consequences.

44. Sensation of cold generally felt when change of temperature produces morbid effects. Neither *sensation* nor *effects* of cold proportioned to its absolute degree,—but rather to previous sensation of heat, and to capacity of bearing the change.—Hence opposite sensations from same temperature at different times,—or even at same time in different parts;—illustrated by experiment with two vessels of water of different temperatures.

45. Such sensations, however, not permanent, unless the higher temperature be *above* 62° , and the lower one *under* that degree:—illustrated by the Buxton water, which becomes either a cool or tepid bath according to the time of immersion.

46. Power of cold different according to circumstances either in respect to the cold itself, or to the person to whom it is applied.—Difference from, 1st, the intensity of the cold;—2d, from period of its application;—3d, from its being accompanied with moisture, and evaporation;—illustrated by Dr. Currie's account of shipwrecked mariners;—nevertheless, bad effects of moisture denied by some;—4th, from cold being applied with current of air;—*lastly*, from its being a sudden

vicissitude.—Dr Wintringham's opinion,—that epidemics arose from vicissitude alone,—examined, and shewn to be erroneous.

47. Circumstances respecting the person himself which render him more liable to be hurt by cold ; 1st, defect of calorific power from fasting,—evacuations,—fatigue,—debauch,—excess in venery,—long watching,—much study, and consequently sedentary life ;—rest immediately after violent exercise ;—sleep ;—preceding disease :—2dly, from the whole or part of the body being deprived of its usual covering ;—one part being exposed while the rest are kept warmer than usual ;—the sensibility of the individual, or of the particular part exposed.—Remarks upon these circumstances.

48. The power of the circumstances enumerated (47), in *favouring* the operation of cold, confirmed by attending to those which enable persons to *resist* its morbid effects ;—which are,—vigorous constitution, especially with respect to the heart and arteries ;—exercise ;—use of cold bath ;—employment of cordials ;—operation of active passions ;—habit of exposure ;—certain states of morbid excitement of the brain and nerves, as in mania.

49. Sudden and considerable alteration of temperature most readily productive of febrile state,—and especially that from a high to a much lower degree of heat.—But constant application of heat considerably above 62°, disposes to febrile condition, and greatly modifies that already present.—Operation of external heat double ;—1st, stimulating the nerves, and increasing the velocity of circulation ;—2d, preventing or lessening certain che-

mical exchange of principles made in the course of the circulation under a lower temperature, and found conducive to vigorous health.—Circulation through the hepatic system especially affected by this;—giving rise to certain states of disease particularly noticeable in warm climates, and perhaps too much overlooked by practitioners in the colder ones.

50. Other causes which predispose to, or actually excite fever:—certain intemperies of the atmosphere, independent of its sensible qualities.—Sydenham's remarks on this, and his consequent division of fevers into *stationary* and *intercurrent*.—Same constitution of atmosphere continuing for a number of years, does not accord with modern observation;—each year having certain marked character in its diseases, differing generally from the preceding or following one.—His assumed cause too, of change in bowels of the earth, altogether arbitrary.—Chemical composition of atmosphere now well known;—but effects on man very different, though its eudiometrical properties the same.—Do not these differences depend rather upon the *mode* or *degree* of combination between its ingredients, than upon their proportions?—Perhaps the particular *electric* state of atmosphere, as connected with Galvanic influence, may have considerable power in occasioning healthy or morbid effects from atmosphere.—Accurate register of such changes connected with history of season and prevailing diseases, still wanting.—Occurrence of catarrh in considerable district, without proof of contagion, or any unusual change in *sensible* qualities of atmosphere.

51. Effluvia of marshes (called *marsh miasmata*) the most common cause of intermitting and remitting fever.

—These effluvia different from mere watery exhalations ;
—many moist situations being free from intermitting fevers.—Precise nature of the Marsh Miasmata little known ;—being void of odour or other sensible quality.
—Macerating moisture and heat, which favour the rapid decomposition of vegetable and animal matter, especially necessary to its production.—Operation of heat shewn by the more noxious effects of marsh effluvia in warm, than in cold climates and seasons ;—and especially in autumn, when heat is often greatest, and many vegetables spontaneously die and rot.—Animal putrefaction less aiding perhaps than might be supposed ; for alone it has little effect on certain trades, as skinners, tanners, &c.—Effluvia from gangrenous decomposition, perhaps an exception.

52. Not every kind even of *vegetable* decomposition that yields febrific miasms.—Remarkable exception in peat ; which is antiseptic.—*Septic vegetable* decomposition, then, the cause ;—and hence explanation of fact observed,—that in the autumn of very wet summers, intermittents have occurred in high, and at other times dry situations, though not observed before or since.—Instances of this in certain high parts of Northamptonshire in the year 1782, which was remarkable for its wetness.—Same principle explains why the mud of great African rivers, which abounds in decomposed animal and vegetable matter, becomes, when exposed by drought, remarkable for occasioning remitting and intermitting fevers.—Hence the periodical fevers at Cairo on retiring of the Nile.—Similar effects on the Guinea coast ; but less at the gradual drying up of the rivers than at the sudden re moistening of the dried mud, by general fall

of periodic rains.—Country often half depopulated then ; and some parts quite deserted from that cause.

53 Marsh miasma not capable, like contagion, of attaching itself to clothes, &c ; but speedily dissipated and rendered harmless.—Proofs of this at Batavia, Bencoolen, and other places.—Instances of sensible difference from removing ships only half cable's length farther off shore.

54 All land winds contain more or less miasmata — Proofs of this in the observation made by naval officers :—illustrates the observation of sensible difference in salubrity between the windward and leeward side of West-India islands.

55 Contagion—defined —Applied in certain degree, of itself capable of inducing fever in any constitution — Question considered, whether contagion is propagated only by communication,—or can be generated *de novo*. —All contagions certainly capable of multiplying themselves ;—and some evidently propagated only in that way ;—but others appear to be produced spontaneously under certain circumstances.—Great difficulty respecting origin of certain specific contagions :—appear to have begun in particular countries at very remote periods ;—and if once destroyed might never again arise —No ground, however, to hope for this in typhus, plague, dysentery, and other contagious febrile diseases that occur more than once during life —Can men carry these contagions always about them, and only become susceptible of their influence under certain circumstances ?—Sir J. Pringle's observations on the rise of contagion in crowded hospitals.—Circumstances which particularly favour the production or virulence of typhus

contagion ;—illustrated by comparative mortality in convict transports and in slave-ships :—the difference perhaps, in part, owing to the higher temperature through the whole voyage of the latter ships, which dissipates contagion ;—but not entirely so, as typhus contagion may be rendered highly virulent and infectious even in hot climates.—Account of the Boulam fever,—malignant yellow fever of the West Indies, North America, and Spain.

56. Fear—and excess in venery—also remote causes of fever ;—while firmness of mind gives corresponding tone and vigour to nervous and vascular systems, and lessens or prevents the influence of contagion.—Examples illustrating this ;—remarkable one related by Dr. Coste respecting the last plague at Marseilles.—Effects of fear related by Diemerbroeck.—Observation made respecting new married people during the plague.

Doctrines respecting Fever.

57. By enquiring into the operation common to the several causes of fever, we approach towards a knowledge of the febrile state.—The nature of a *proximate cause* ill understood ;—hence the search after it rarely successful,—and the circumstance generally assigned as the proximate cause, either a gratuitous assumption, or some one or other of the more prominent symptoms.

58. Opinion of Hippocrates,—that fever was an effort of Nature to expel something hurtful from the body.—Adopted by Galen and his followers,—and countenanced by various evacuations occasionally attending crisis.—Hence doctrine of *Concoction*, or fermentation and despumation ;—and belief that duration and event

depended on these being rapid or slow,—imperfect or complete.—Treatment founded on these ideas.

59. These doctrines (58) universally taught for thirteen centuries;—and though now exploded among British practitioners, still exist in the language and opinions of the vulgar.—Humoral pathology fully discussed in Lectures on the Theory of Medicine.—Not sanctioned in fever,—either by observation,—or deducible from most successful plan of cure.—Though morbid cause absorbed and multiplied in certain diseases,—yet in others, no evidence of its existence.—Comparison of contagious febrile disorders with intermittents;—no proof of *materies morbi* in latter:—nor intermissions in them explicable on such idea.—Fever often cut short without attending to concoction:—why this not practicable in every case of febrile disorder;—and why some admit only of being *regulated* during their progress.

60. Revolutions in physic generally in extremes.—Doctrines of Galen undisputed until time of Boerhaave.—Character of Boerhaave.—His opinions more generally adopted than those of any other modern.—Character of his aphorisms, and the Commentary on them by Van Swieten.—Like all *systems*, aimed at too much. Corpuscularian philosophy, and his mathematical education, gave mechanical turn to his opinions respecting living body.—Adopted Loewenhoeck's notion of decreasing series of particles in blood; and corresponding series of vessels.—Plausible theory of many diseases founded on this assumption.—His doctrine of *error loci* in inflammation:—strengthened by erroneous idea respecting the shape of arteries.

61. Boerhaave's doctrine of fever, though more gra-

tuitous, yet still plausible, — as agreeing with Loewenhoeck's and his own observations, respecting compounded globules of blood — Imagined the tendency to aggregation among particles varied at different times, — and condition or crasis of blood altered accordingly ; — occasioning thin and serous, or thick and viscid state, according as aggregative tendency weak or strong. — *Lentor*, or viscid state of blood, assumed as proximate cause of fever. — His mode of applying this to explain phenomena of paroxysm.

62. His theory implicitly received by physicians. — Was himself the first to see its defects ; — and to admit the agency of nervous system. — Van Swieten's endeavour to explain the difficulty, and maintain his master's credit. — With this explanation, approaches the doctrine of Hoffman and Cullen.

63. Mechanical doctrines not capable of rigorous scrutiny when applied to living body. — No direct proof of viscosity in blood during fever. — The very groundwork, viz. Loewenhoeck's observations, shewn to be a mere fallacy.

64. Mechanical system of physics much weakened by chemical discoveries. — Phenomena of Nervous System became more attended to, — especially by Hoffman, — who referred the healthy or diseased condition of body, to the state of the *moving fibre*. — This doctrine strengthened and illustrated by operation of various subtle agents on the living body ; — and particularly by the effects of passions and emotions. — The general principle now universally admitted as a fundamental part of pathology.

65. Fever considered by Hoffman as primarily arising

from diminished vigour of nervous system, and particularly of brain and spinal marrow;—whence nervous extremities not duly supplied with energy.—Effects of this necessarily greatest in remote parts,—especially in extreme arteries;—whence atonic and spasmodic state of them.—Application of this to explain some of the phenomena in cold stage.

66. That febrile commotion exists primarily in nervous system, now universally allowed;—unnecessary, therefore, to enter into discussion of it.—Hoffman's theory adopted by Dr. Cullen, and illustrated with great ability.—Chief merit due to Hoffman, both as first proposer, and as referring the phenomena of fever to irregularity and disturbance pervading nervous system,—and present in every stage of fever;—while Cullen assumes a symptom, viz.—spasm of extreme vessels,—as the proximate cause.

67. Sketch of Dr. Cullen's theory of fever.—Remote causes of fever all directly sedative,—and their application occasions debility,—as shewn by general languor,—weak frequent pulse,—coldness and shivering,—want of appetite, &c. accompanying attack of fever.—Intermitting fever selected as the best example.—Considers *three* states—of debility,—of cold,—and of heat, as essential to idiopathic and primary fever.—As they occur in order enumerated, concludes them related as *cause* and *effect*.

68. So far supported by facts.—But proceeds to assume *spasm* as proximate cause of fever.—To do this, recurs to positions neither congruous with one another,—nor warranted by observation.—No proof of spasm in every fever:—though obvious in intermittents, is much less in

remittents,—and often undiscoverable in typhus.—This shewn by comparison of these forms.—Reaction of heart and arteries to be explained on some other principle or law of animal economy.

69. Other difficulties attending his theory :—spasm supposed partly owing to the *VIS MEDICATRIX NATURÆ*.—Absurd to believe the preservative power augments same state which it was roused to do away.—The essence of a proximate cause,—that when present, disease also present,—when removed, disease ceases.—Spasm present only in one stage even of intermitting fever.—Is itself dependant on diminished energy of brain and nerves ;—and its recurrence prevented by supporting tone and energy.—Spasm, therefore, only one among the concurrence of symptoms.

70. Outline of Dr. Brown's theory.—Capacity of living body for receiving impressions, termed by him *excitability*.—Agents or Powers acting on the body, termed *stimuli*.—Life,—health,—and disease, the result of *stimuli* acting on *excitability*.—Certain degree or quantity of excitability assigned at commencement of existence :—is worn out by operation of stimuli,—quicker or slower according to their degree,—and death necessary consequence.—Speciousness of this ;—but irreconcilable with another necessary position,—that *excitability* is accumulated,—is in proper degree,—or is exhausted,—as *stimuli* are defective,—in due proportion,—or in excess.

71. Other embarrassments attending this theory :—*excitability* though varying in *degree*, affirmed to be always simple and individual in its *nature*.—Necessary consequence of this,—that *stimuli* also differ only in *degree*,—and consequently, in certain dose, ought all to have same

effect.—That such idea absurd, and contrary to fact, proved from difference of organs in body, each fitted to its respective agent.—Proved also from specific and peculiar operation of remedies:—excitability increased by mercury or alcohol,—diminished or exhausted by lead, or digitalis.—These objections fatal to whole system.

72. Other difficulties of his doctrine with respect to fever.—No primary stimulant effect observable from marsh miasmata, or contagion of typhus or plague.—Considered poisons and certain contagions as an exception.—Assumed *debility* as proximate cause of fever;—but avoids explaining how occasioned by these,—or ascertaining whether *direct* or *indirect*;—though this before affirmed to be indispensable to knowledge of disease, and to successful cure.

73. Though Dr. Brown's theory the same,—his practice greatly changed in a few years.—Doses of opium and brandy in fever, very much diminished latterly, in consequence of doubts suggested by some of his pupils.—His own practice never sufficient either to verify or disprove his system.

74. Dr. Darwin's theory difficult, if not impossible, to be understood;—his doctrines received by very few;—and no superior success in his practice, to justify the trouble of studying his system.

Of the Nature of Fever.

75. The investigation of this subject difficult:—much novelty not to be looked for,—but unbiassed relation of facts and conclusions resulting from attentive observation.

76. Febrile diseases, though numerous and varied,

have something of common nature.—Causes productive of fever apparently very different in their properties.—General similarity of effect on living body, explicable only from their tendency to injure and destroy it,—and body itself endowed with preservative power to resist their operation.

77. This power or principle chiefly resident in nervous system.—Functions of this system not fully ascertained.—*Sensation* inherent in it :—*Motion* derived from it.—Calorific function not sufficiently referred to nervous system.—Doctrine of respiration and animal heat treated fully in physiological course :—short sketch of it according to the discoveries of Dr. Crawford, &c.

78. In process so purely chemical as represented, *great* variation necessary, according to *relative* as well as *absolute* quantity of oxygen, caloric, and carbon.—Accordingly, certain *degree* of variation observed in temperature of body, when person in health made to breathe air considerably more or less pure than that of atmosphere ;—but scarcely sensible difference in air of different places and at different times, by eudiometrical tests.—Variation of animal heat, then, while breathing common atmosphere, not owing to difference in purity of air :—whole portion of oxygen gas inspired at once, not converted into carbonic acid.—Of course, quantity of caloric evolved under similar *external* circumstances,—to be referred to that animal process which effects exchange of caloric and carbon during circulation.

79. This exchange, or *calorific process*, ultimately referable to agency of nervous system.—Proof of this in uniformity of animal heat during health, under every variety of external temperature ;—and great difference of

it, even under same temperature, if functions of nervous system deranged.—Morbid variation of animal warmth, sometimes pretty constantly *below*, at other times rather *above* the healthy degree,—but oftenest, frequent alternation of *excess* and *defect*.

80. When such alternation begins with *deficient*,—then proceeds to *excessive* evolution of heat,—and these changes recur at intervals with more or less violence,—it then constitutes morbid state termed PYREXIA:—character of this, as accurately defined by Dr. Cullen.

81. Nature of process effecting separation of carbon from solids of body, on one hand,—its absorption by blood and consequent evolution of caloric, on the other,—at present unknown:—but ultimately traced to agency of nervous system;—and immediately and considerably affected by certain disturbed state of this, while external circumstances unchanged.—Striking illustration of this in case related by Mr. J. Hunter.—Such disturbed state of nervous system, if not the proximate cause of pyrexia,—at least intimately connected with it.

82. This particular state, chiefly characterized by deficient and irregular distribution of nervous energy;—hence often described by the term *debility*.—Such term, however, too general,—as comprehending several species of defective power in nervous system, not productive of febrile state.—Term *atony* used by Dr. Cullen.—This term by itself also objectionable,—as denoting more especially want of tone in *muscular fibre*;—but qualified by word *febrile*, appears sufficiently precise and expressive.

83. Chilly and cold state of body marking commencement of pyrexia, proof of diminished energy in nervous system.—This universally followed by increase of heat,

—even to 6° and 8° beyond healthy standard.—Such alternation directly the reverse of what might be expected.—Illustration of this, by comparison of piece of mechanism with living body.—Retardation or irregularity of *machine*, remains the same, as long as first cause continues to act.—Living body also a machine,—but infinitely superior in construction and operations.—Healthy man exposed to marsh miasmata:—first effects,—indisposition to bodily or mental exertion,—lassitude and general uneasiness,—loss of appetite,—small and very frequent pulse;—paleness and shrinking of skin,—chilly sensation and actual coldness,—shaking of whole body,—in short, cold fit of intermitting fever.

84. So far effects in *machine* and in living body correspond—But these not permanent in latter,—or death inevitable.—After symptoms of *diminished* power and energy lasting some time,—*opposite* train of symptoms arise:—heat gradually returns, and even exceeds natural degree;—mind becomes quick and irritable,—its ideas rapid even to delirium;—pulse grows full and less frequent;—and lastly, perspiration or sweat succeeds, with relief to all these symptoms, and restoration of bodily and mental functions, nearly or entirely to healthy state.

85. This restoration sometimes only temporary,—and same train of symptoms recurs again after interval of 12, 24, or 48 hours;—but at other times complete and permanent,—or else each recurrence less severe, until they cease spontaneously.

86. Difference between inanimate machine and living body,—evidently owing to the latter being endowed with PRESERVING PRINCIPLE, or *Vis Medicatrix Naturæ*.

87. Objections made to this principle, from its being personified by its advocates, and compared with rational soul,—under different names of *Archæus*,—*Autocrateia*,—and *Anima medica*;—but its existence and operation incontestibly proved in a variety of cases:—examples of these.

88. Objection—that PRESERVING POWER, instead of simply counteracting primary effects of morbid cause in fever, occasions more distressing or dangerous symptoms,—answered;—the symptoms of *re-action* being *morbid* only because in *excess*.—Application of this to the definition given of disease (par. 2.) pointed out.

89. Every paroxysm of fever, then, consists of two sets of symptoms;—the first set being the *direct* and *immediate* effects of febrific cause, ex. gr. marsh miasma, —contagion, &c.;—the second arising *indirectly*, or through operation of PRESERVING POWER.—In the increasing or diminishing this reaction of preserving power, consists a principal part of the cure of fever.

Of the Crisis in Fever.

90. Literal signification of the term *κρίσις*;—its meaning as applied to change in disease.—Denotes either fatal or happy event,—but generally used in latter sense.

91. Curious fact,—that living power when nearly worn out by successive paroxysms or exacerbations of fever,—should often suddenly and spontaneously recruit,—remove all alarming symptoms,—and leave the patient with little more complaint than general weakness.—This change most striking in *continued* fever;—and sometimes so remarkable, as to seem the special effect of divine interposition:—consequences of such belief among nurses and patient's friends.

92. To understand the nature of crisis,—necessary to recollect the view given (par. 89) respecting nature of fever.—PRESERVING PRINCIPLE various in degree in different individuals,—periods of life, &c.—Constitution *strong* when PRESERVING POWER *vigorous*,—and *weak* when PRESERVING POWER *defective*.—Force of remote causes also, viz. miasmata, contagion, &c. different on different occasions.—According to relative degree of preserving power on one hand, and force of febrific cause on the other,—the change termed *crisis* will be well marked,—indistinct,—or altogether absent.—Crisis most remarkable when operation of the febrific agents goes nearly to subvert the PRESERVING POWER,—and where it acts directly on nervous system, without occasioning such derangement of its organization, as to unfit it for resuming its functions when the morbid impression has ceased.

93. Morbid impression made by the causes of fever, not permanent,—but wears out after longer or shorter period.—Febrile state induced by cold, unless joined with local inflammation,—seldom of such duration and degree, as to display critical change.—Morbific intemperies of atmosphere constantly applied while it exists;—difficult, therefore, to ascertain date of its first *effective* impression.—Effect of miasmata occasionally very speedy;—instances mentioned by Sir J. Pringle, and by Lancisi.—Effect of contagion still more quick.

94. When morbid impression not strong, no actual disease immediately follows.—Interval between effective application of miasmata, and attack of intermittent, now and then well marked (par. 31);—but between exposure to contagion, and commencement of typhus,

often distinctly ascertained.—Agree in producing specific *disposition* to their respective kinds of fever, which remains for some time;—and either subsides spontaneously,—*gradually* acquires strength,—or is *suddenly* rendered active by concurrent operation of other remote causes.—This property common to all specific causes of febrile state,—as contagion of Small-Pox,—Measles,—Whooping-Cough, &c.—Utmost limits of interval belonging to these respectively, not ascertained.

95. Duration of actual disease from respective febrile agents also limited.—Period of this known and uniform in some,—as Small-Pox and Measles;—and perhaps uniform also in intermitting fever and Whooping-Cough:—but difficult to determine this, and why.—Of less consequence to ascertain it in Intermitting fever, as seldom shewing any marked crisis.

96. Crisis most conspicuous, and of most practical consequence, in fevers originating from contagion,—or in those which *assume* typhoid type in their progress.—Hence the study of it especially important in those fevers.—Illustration of it by case of healthy person exposed to contagion:—often no sensible effect for week or more.—Difficult to say how much longer morbid disposition will lie dormant;—perhaps never above three weeks.—May wear out or expire silently in certain cases;—is rendered active in others, by *Preserving Power* being weakened from operation of cold,—fear,—grief,—anxiety,—loss of blood, &c.—Duration of morbid impression difficult to determine;—but actual idiopathic fever seldom if ever longer than four weeks,—and often short of that.—Objection,—that patients die after 28th day from actual seizure,—answered:—death then not

owing to original febrile state,—but to diseased condition induced in some important organ,—as inflammation, effusion, or suppuration in brain,—lungs,—liver,—intestines,—mesentery, &c.—Proof of this from *general* febrile disorder often subsiding some days before death in such cases.—Protraction of intermittents often owing to local disease,—especially in liver and spleen.

97. Local affections occurring during progress of idiopathic fever, also render crisis obscure and imperfect.

98. Febrile derangement of functions proportioned to force of contagion on one hand, and susceptibility of patient on the other.—May terminate at any period between a few days and three weeks, according to circumstances.—Crisis, or sudden change at termination, most marked when febrile derangement considerable,—when extended towards utmost limit of morbid impression,—and when unopposed by any local affection.

99. Critical termination more frequent and complete at certain periods within this limit of duration, than at others.—Hence the doctrine of CRITICAL DAYS.

100. This doctrine first taught by Hippocrates,—generally admitted by his successors among the ancients,—and maintained by many moderns of great eminence.—Much difference between the advocates for them as to the particular days;—and their existence altogether denied by many practitioners.

101. Periodical movements in the body shewn by tertian and quartan periods in intermitting fever.—Diurnal movements obvious in continued fever;—but tendency to tertian and quartan movements also probable in it, from change of type in these fevers,—as well as from nature of fever in general.—This tendency obscure in

continued fevers of this country, and marked only by greater exacerbation and remission at tertian and quartan periods;—but probably distinct in Greece,—owing to greater uniformity in climate,—and mode of life,—and to inert practice of Hippocrates.—The doctrine also much influenced by belief in the Pythagorean power of certain numbers.

102. Critical days of Hippocrates,—3^d,—5th,—7th,—9th,—11th;—14th,—17th,—and 20th, from actual attack;—or, crisis most frequent,—complete,—and favourable on these days;—and oftenest incomplete or unfavourable on the intermediate ones.—First fortnight *tertian* intervals;—afterwards *quartan*.

103. The exact day of attack in fevers from contagion often uncertain:—hence difficult to determine the *odd* or periodical days, till disease somewhat advanced.—Their regular recurrence likewise altered in many cases by the operation of remedies.—Critical periods, therefore, less distinct among us than among the ancients;—but their existence and operation in a certain degree cognizable.

104. A septenary period most remarkable in continued fevers from contagion;—such fevers oftenest terminating at end of *one*,—*two*,—or *three* weeks from attack;—and critical change most conspicuous at these periods,—especially at the *second* and *third*;—whence common term of—*fourteen*, and *twenty-one day fever*.—Reason of this.

105. Correspondence with this, in the decided tendency of remitting and intermitting fevers of warm climates, to recur especially at lunar,—semi-lunar,—and quarti-lunar periods:—and hence the ground of particu-

lar practice in such places.—Dr. Balfour's theory ;—evidence in its favour :—has carried his system too far.

106. Crisis in contagious fever most strongly marked, when septenary periodic movement concurs with spontaneous termination of original morbid impression.

107. Amendment in fever generally preceded or accompanied by some spontaneous discharge,—as hemorrhage,—diarrhoea,—sweat,—lateritious deposit in the urine :—whence arose the idea of such discharge being the *cause* of the amendment, by carrying off the *materies morbi*.—Other discharges also mentioned as *critical*, e. g. vomiting,—flow of saliva,—abscess, &c. ; but these comparatively rare.

108. Twofold view of such discharges by the advocates for Humoral Pathology, viz. as being,—1st, the ground of *prognosis* as to final event,—and, 2^{dly}, as directing us to procure such discharges *artificially*, and thereby successfully imitate the salutary effort of Nature.

109. These discharges, even when spontaneous, often useless or hurtful.—Attempt to explain this by imperfect concoction of morbid matter ;—but the doctrine shewn to be unfounded ;—and even if true, its application to fevers in general neither satisfactory nor safe.

110. The discharges considered as *critical*, shewn to be oftener *effects* of the favourable change in the system, than *causes* of it ;—but, in certain cases, assist both to form *prognosis*, and *indications of cure*.

111. Remarks on the particular discharges : —1st hemorrhage ;—oftenest from the nose ;—the quantity generally small ;—the relief it sometimes gives, not to be explained by the notion of morbid matter being eva-

uated by it :—in what stage and kind of fever useful and instructive ;—in what hurtful and unpropitious.

112. Deposit in the urine occurs after each paroxysm of Intermittent (par. 23.); and at the decline of Acute Rheumatism, &c.—not unfrequent in gouty persons during ordinary health ;—and may be produced in any one by sudorific medicines.—Hence affords no particular indication of cure ;—but occasionally anticipates the other phenomena marking a solution of the fever.—Enquiry into the nature of febrile sediment in urine : contains nothing peculiar to the febrile state.—Appearance of the urine in different forms of fever :—sometimes nearly natural ;—often paler and like whey, particularly in nervous fever or mild typhus.—High colour of it, —different in different kinds of fever ;—causes of this :—sometimes of a deep brown, sooty, or dusky green.—Conclusions to be drawn from these appearances.

113. Increased discharge by perspiration or sweat, the natural and most common termination of febrile paroxysm.—Infectious quality of the matter perspired in contagious fevers seems to favour the idea of morbid matter ;—but such fevers not noticed by its founder, and the contagion shewn to be the product of morbid action in the perspiratory vessels.—Sweat often universal and profuse for many days without relief ; and rather unfavourable.—Sudor Anglicus described by Dr. Caius.—Partial, cold, and clammy sweats never attended with relief, and generally very unpropitious.—What kind of sweat is favourable, either when spontaneous, or when procured by remedies.—Merit of Sydenham in exploding the alexipharmic and sweating treatment of fevers in general.

114. Diarrhœa seldomer critical than perspiration; but sometimes precedes and causes the latter.—Is also more readily excited or restrained by remedies;—and hence important in a curative view.—Under what state it is indicated,—by the degree of vascular action,—by the colour, &c. of the stools, as being black and offensive,—yellow,—green, &c.—Kinds of fever in which certain states of the alvine discharge most commonly appear:—prodigious quantity of bile evacuated in certain fevers, and by particular constitutions;—importance of this discharge to recovery.

General Prognosis in Fever.

115. Several points connected with this, already noticed (par. 110-114).—Prognosis to be drawn, on the one hand, from excessive action,—and, on the other, from defect of the vis vitæ.—The first is especially the case in inflammatory fevers,—the other in those of the typhous kind.

116. Simple excess of action not very dangerous unless particularly violent in some important organ, as the Brain,—Lungs,—Intestines,—Liver, &c. being otherwise within the controul of remedies.

117. Defect of the vis vitæ more hazardous.—Ambiguity of the term *Vis Vitæ* from the vague definitions given of it.—Are to understand by it a principle of activity and of preservation, most remarkable in the nervous and muscular substance, but diffused throughout both solids and fluids of the body, and apparently existing in these in different degrees in different persons, and under different circumstances.—The danger, then, to be estimated from its defect in these collectively.

118. Muscular weakness common to all fevers,—but most sudden and considerable in those from contagion :—cause of this.—Of itself not alarming.—Defect of *Vis Vitæ* as shewn in the state of the circulation and respiration more dangerous,—and why.

119. Defect of energy in the Brain, as shewn by the weakness of the mental functions,—constituting different degrees of stupor and delirium,—often very considerable in cases which end favourably.—Active delirium generally accompanied with inflammatory condition of the brain :—great danger of this in contagious fevers.—Similar combination of *increased action* with *diminished power* in other vital organs, embarrassing, and difficult to treat successfully.

120. Irregular distribution of nervous influence,—shewn in convulsions,—spasms,—tumors,—subsultus tendinum,—hiccup, &c.

121. Defect of *Vis Vitæ* as shewn in the texture and appearance of the blood when drawn : varieties of these, with remarks upon them.—A *tendency* to the septic process often evident ; but an actually *putrid* state of the *circulating mass*, incompatible with life.—Much misrepresentation and error on this subject found in medical writings.

122. Septic state most conspicuous in certain secretions,—especially of the mouth and fauces,—of the intestines, &c. ; and the proper light in which such changes are to be considered.

123. Defect of *Vis Vitæ* both in solids and fluids shewn—1st, by effusions of blood under the skin forming *petechiæ*,—*vibices*,—*ecchymoses* ; remarks on these :—2d, by particular yellowness of skin in certain fevers ;—

important distinction between this and icteritious yellowness:—3d, by passive hemorrhage from the nose,—mouth,—intestines,—urinary passages:—4th, by gangrene of parts inflamed by blisters, pressure, &c.—gangrene of the feet sometimes takes place as the fever subsides.

124. Prognosis from change of voice and manner,—eager or difficult deglutition,—appearance of eyes, and of countenance in general,—posture,—passing of urine and fæces,—temperature of extremities, &c.

125. Correct prognosis only to be formed from a comprehensive view of the living machine,—the relative importance of its several organs and functions,—the number of these, and the degree in which they are affected,—the species of fever, and the tendency of it *in general*, as well as of the *particular* epidemic,—together with the patient's age, constitution, previous habit of body, and mode of life.

Diagnosis of Fevers.

126. Every idiopathic fever referable to one or other of the three principal forms of *Intermittent*,—*Remittent*,—and *Continued Fever*.—The two first in part owing to one cause, viz. miasmata:—hence often change into each other by the change of season, and other circumstances; and a consideration of these necessary to form an accurate Diagnosis.—*Continued Fever* of the inflammatory kind independent of local affection, rare;—Continued Fever, then, *generally* referable to Contagion;—and therefore commonly assumes the typhoid character in its progress.

127. Accidental symptoms of local affection, to be

distinguished from the fundamental febrile disease, and not made a ground of multiplying names ; which tends to confound disorders essentially the same, and to mislead in practice.

General Cure of Fever.

128. Though the treatment of fever varies greatly in different cases and stages of the disorder, yet certain principles of cure applicable to fever in general ; and a knowledge of these, marks the scientific practitioner.

129. Why fever is occasionally cured by *different*, and even *opposite* modes of cure,—and the consequent scepticism of many with respect to the utility of medicine, considered.—Every fever, however various its cause, shews a sort of common character, as originating from a *certain disturbed state* of the Nervous System.—Essential nature of this morbid state hitherto unknown, and perhaps will always remain so.—Hence the necessity of attentive observation, and cautious conclusion, to successful practice.

130. Living differs from dead body in its power of beginning motion, and producing various *changes*, both necessary to its existence and well-being.—These constitute the mechanism and chemistry of *life*.—Certain *order* and *degree* of these motions and changes, productive of HEALTH ;—and any *excess*, *defect*, or *irregularity* of them, beyond a certain degree, causes DISEASE (par. 2.)

131. Hence the General Principles of Cure in fever, consist in counteracting the operation of the causes inducing it,—by, 1st, *diminishing* those motions and changes which are in *excess* ;—2d, *increasing* those which are *defective* ;—and above all, 3d, restoring the due

order or *train of succession* in those which have had it disturbed.

132. The 1st and 2d indications comprehend all that in general is necessary in fever arising from common causes,—as sudden alternation of temperature,—excess in exercise,—in eating, drinking, &c.;—but in that produced by specific agents, as Miasmata and Contagion, are properly only palliative, and ward off urgent symptoms, so as to let the specific disease expend itself.—The 3d indication comprizes the *essential* cure of fever;—there being no *antidote* to febrile commotion from specific causes.

133. The motions and changes of living body too little known to admit of precise definition; but may be expressed by the general term *Actions*.—A fundamental law of these,—that they *naturally* proceed in a certain *train* or *order*, unless disturbed by the operation of hurtful agents;—but that, when so disturbed, they assume *another*, and a *morbid* train or order, and continue this in a *degree*, and for a *period*, proportioned to the *force* of the hurtful cause, and the *permanence* of the impression made by it.—Illustration of this by comparison of fever as arising from *common*, or from *specific*, causes.

134. Fevers from Contagion may often be extinguished at their commencement.—Why this not practicable in the advanced stages.

135. In the living body, same ultimate effect may arise from different or even opposite causes:—exemplified by the occasional success of *different* and even *opposite* remedies in fever.—But every plan of cure not therefore equally proper;—some one mode being especially suited to the individual *kind*, *degree*, and *stage* of

the disease; and the judicious adaptation of it to these respectively, being most uniformly successful.

136. Causes of fever are generally such as lessen action in the first instance; hence, the increased action which follows, is from the exertion of the Preserving Principle.—Importance of this in explaining the increased action with *adequate* or *inadequate power* of maintaining it;—and in adapting the plan of cure accordingly.

137. First general indication (par. 131) divisible into two heads, accordingly as the *power* is considerable or deficient:—illustration of these two states referred to the doctrine of Inflammation.—In every fever there is a state approximating towards one or other form of inflammation, and ready to assume its corresponding form by the concurrence of certain causes.—Tendency to the *active* form chiefly noticed by authors, and by them denominated the PHLOGISTIC DIATHESIS.

138. Particular condition of the nervous system occasioning this, at present unknown; but its *effects* most obvious in vascular system, and the remedies to be chiefly directed to remove these.

139. State of circulation indicating Phlogistic Diathesis, marked by frequency,—strength,—and hardness of pulse, with increased temperature.—Remarks upon these.—Frequency less characteristic than the other states;—and to be depended upon only as accompanied by them.—Circumstances of the patient's constitution, &c. and of the remote causes, in which such diathesis especially prevails.—Hard pulse sometimes ambiguous, and why.—Increase of temperature often greatest where no true phlogistic diathesis present.

140. Collateral symptoms marking phlogistic diathesis.—High colour of the urine :—necessary distinction here.—White tongue :—discrimination of its kind and degrees.

141. Antiphlogistic plan extensive :—consists of remedies and regimen.—Latter applicable also to other states of fever.—Bloodletting the most speedy and powerful remedy.—How rendered most effectual.—Local bleeding.—Circumstances regulating venæsection in idiopathic fever ;—nature of prevailing epidemic ;—nature of the remote causes ;—season and climate ;—degree of phlogistic diathesis ;—period of the fever ;—age and natural habit of patient ;—former diseases and habit of bloodletting ;—appearance of the blood ;—effects of first venæsection.

142. Purging, another mode of lessening the phlogistic diathesis.—More limited in its effects, and why.—Seldom to be pushed far.—Purging likewise applicable to other states of fever.—Distinction between the kinds of evacuation procured by it, as adapted to these respectively.—Its utility as merely emptying the intestines, or as discharging bile ;—the circumstances under which one or the other is especially proper, denoted by the state of the countenance,—tongue,—urine,—perspiration,—breathing,—particular sensations.—Remedies especially adapted to fulfil the indication under certain circumstances.

143. Third mode of lessening excessive action, consists in abstracting the stimulus of heat from the body.—The temperature of the body in fever very various ; hence necessary to discriminate the circumstances requiring its diminution, and the extent of this.—General

retrospect of Calorific function (par. 78):—is both a means and an end in the animal economy:—its irregularity essentially connected with fever;—and its restoration an important part of the cure.

144. Balance between evolution and abstraction of heat in health.—Accumulation of it necessary from increase of one or diminution of the other; and still more from both.—Hence its reduction twofold; but such division not distinct throughout.

145. Regulation of external temperature how managed;—cautions necessary.—Sydenham's practice animadverted on.

146. Continued abstraction of heat in many instances unsafe, though temperature of body in excess:—reason of this, and explanation of Dr. Currie's remark on the fact.

147. Cooling effect of evaporation long practically known in particular countries;—proved by Dr. Cullen's Experiments in 1755;—first noticed in living body by Dr. Franklin;—applied to explain certain phenomena observed in the Experiments made in heated rooms, by Sir J. Banks, and Drs. Solander, Blagden, and Fordyce.—Though a principal agent, was not the sole one.

148. Febrile heat generally abated by sweating; but this often the *effect* rather than the *cause*.—Why sweat not proportioned to the velocity of the circulation.—Perspiratory vessels, like other secreting ones, liable to constricted state from excessive action:—effect of former in augmenting the latter,—removal of latter necessary in first instance:—why not to be done by the same means in different cases, explained by principle laid down par. 137.)—Means proper when both *power* and *ac-*

tion strong;—those proper where *action violent*, but *power diminished*.

149. *Affusion of cold water*:—history of it;—the practice ancient, but in general empirical and vague, till illustrated by Dr. Currie's experiments, and successful practice with.—The kind of fever to which it is especially applicable.—The time and manner of using it:—kind of water employed;—temperature proper in different cases.—When to be abstained from.—Period of the disease at which it succeeds best.—Particular form of fever in which it failed:—conjectures on the causes of this.

150. Obstacles to the use of cold affusion;—from its novelty,—from the heat not being considerable or universal.—Abstraction of heat by sponging the body with vinegar and water, occasionally employed with advantage.—Its effects compared with those of affusion;—less sudden and powerful:—the frequency and extent of its application necessarily committed to the attendants,—hence liable to mismanagement, and not always safe.

151. Abstraction of heat from the stomach by *cold drink*.—Use of this necessarily very ancient, as founded on call of nature.—Recommended by Hippocrates, Galen, and Celsus.—Employed by the Italian physicians, under the title of *dieta aquea*, to the exclusion of other remedies.—Its indiscriminate use hazardous, and why.—Circumstances indicating its propriety or the contrary;—patient's craving not always a sufficient warrant:—temperature of body,—state of perspiration;—signs of congestion or inflammation in thoracic or abdominal viscera.—Dr. Currie's opinion, as to *when alone dangerous*, appears to admit of some restriction.—Its use in some places

among the lower classes, to excite diaphoresis in simple fever from cold:—its *modus operandi*.

152. NITRE potentially refrigerant effect of when swallowed:—its *modus operandi* obscure;—not dependant on its absorbing heat during the solution;—most probably from sedative influence on the stomach.—Its operation uncertain, and not always safe.—Circumstances indicating or counterindicating its employment.—Mode of administration.

153. ACIDS in general, when diluted, quench thirst and lessen febrile heat;—perhaps do both by a common operation; but this not obvious.—Vinegar rather an exception, especially in certain constitutions.—Choice of acids:—native vegetable the most universally grateful.—of the mineral acids, the Vitriolic the most frequently used; probable causes of this:—the Nitrous and Muriatic deserving of comparative trial.—The *antiseptic* effect of acids to be considered under the second general indication.

154. OPIUM:—abstract question of its being *stimulant* or *sedative*, improper here;—its power of allaying excessive action under certain circumstances, incontestible. Doctrines which inculcate its uniform operation as a stimulus, therefore fallacious.—Distinction between *power* and *action* affords the only practical explanation of its effects in different cases:—application of this, and its importance shewn.—Particular circumstances limiting or modifying its use, even where indicated by the general condition of the system; viz. state of the intestines,—of the brain; idiosyncrasy.—Means of lessening or removing the two first.—Opposite practice of Dr. Brown and Dr. Fordyce: strictures on them.—Extent and fre-

quency of the dose most proper in general.—External application.

155. Perspiration or sweat, another mode of *lessening excessive action*;—accompanies the remission or crisis of almost every fever:—hence the importance of inducing it as a means of cure; but the method of doing this different, and even opposite, in different cases.—Is always most beneficial when *indirectly* procured, or when it is the *consequence* of a favourable change in the system.—Diaphoretic and sudorific medicines, however, often highly useful, especially as adjuvants.—Antimonials the most powerful of these;—all agree in exciting *nausea*;—erroneous conclusion of Dr. Cullen upon this point. Fallacy of his general doctrine already shewn (67-9); and mischievous effects of its application to low fevers, proved from the result of his own practice.—Under what circumstances antimonials may be freely employed;—great caution and nice management required in others.—Means by which their good effects may be often secured.

156. Of the choice of antimonials;—James's Powder, Pulv. Antim. Ph. Lond.—Tartarized Antimony:—uncertainty of the two first;—causes of this. No specific antifebrile virtue in any of them;—pernicious error of a contrary belief respecting James's Powder.

157. Of the 2d general indication,—viz. *to increase those actions which are defective*.—Most agents applied to the living body, capable of increasing action in it; and hence the *universal* conclusion drawn by some, that *all* powers operate only by *stimulating*, and differ merely in *degree*.—Error of this already demonstrated.—In so complicated a machine as the living body, same or simi-

lar *ultimate* effects often arise from agents differing widely in their primary operation:—proof of this in the opposite causes of febrile commotion.—Hence the *second* general indication sometimes fulfilled *in part* by means chiefly adapted to the *first*.

158. Certain remedies, however, operate very uniformly by supporting or increasing action; and hence properly called *tonics* and *stimulants*:—these especially proper where *power*, or *action*, or both, deficient.—Though *power* physically necessary to *action*, the converse also true in the living body,—or *action* necessary to the maintenance of *power*.—Power and action far from commensurate in disease:—application of this to fever.

159. Distinction between *tonics* and *stimulants*, shewn by the febrile states in which they are respectively found most useful, e. g. intermittents, and low continued fever.—Importance of this, and pernicious error of Brunonian school demonstrated,—Cinchona seldom beneficial in *continued* fever of any kind:—symptoms absolutely forbidding its use,—as shewn in state of tongue,—of skin,—of intestines,—of urine.—Circumstances admitting its employment:—answers best in convalescent state, and why.

160. Simple bitters not powerful in intermittents, and of little or no use in continued fever.—Stimulants:—Serpentaria one of the best:—Contrainerva of little or no use.—Æther vitriolic.—vol. alkali, &c.

161. CAMPHOR;—its *modus operandi* obscure;—even its taste combines opposite impressions;—appears to act directly on the nervous system, and hence perhaps its use occasionally as a stimulant,—sedative,—or antispasmodic:—nevertheless has no considerable or specific febrifuge

virtue; and chiefly useful as an adjuvant to antimonials, Serpentaria, &c.—Its combination with vinegar highly praised by Huxham; but his commendation evidently more from theory than experience:—improbable too from the smallness of the dose.—Would *native* vegetable acids improve it?

162. Acids in general *chemically antiseptic*; and by resisting or correcting septic tendency in fever, may prove *tonic*. But by some affirmed to possess specific febrifuge power:—the fact not yet verified by general observation; and Dr. Reich's *theory* respecting them, shewn to be highly improbable.

163. CARBONIC ACID GAS, OR FIXED AIR, powerfully antiseptic *out* of the body, and highly useful where septic process takes place *within* it.—Different forms of administering it, and their respective advantages.—Perhaps Yeast useful only as containing carbonic acid:—the evidence respecting it contradictory;—inconveniencies attending its employment, and mode in which these may probably be avoided, without lessening its efficacy.

164. WINE the most grateful of all remedies as a tonic and stimulant in certain states of low fever: reasons for this:—Pernicious error of considering it universally such, and consequently indicated in proportion as living powers *appear* sunk, or their actions diminished.—Recapitulation of general principles respecting greater or less permanency of febrile impression—from the nature of its causes,—and from its degree or duration; and application of these with regard to wine—Circumstances limiting or precluding its use, especially state of the brain.—Dose and management most efficacious.—Choice of wines:—Cyder,—Perry,—malt liquors.

165. WARM or TEPID BATH, a remedy well adapted to lessen morbid irritation in the low state of fever, equalize the circulation, and relieve the oppressed powers of the system.—Obstacles to its employment.—Warm *affusion* often usefully substituted.

166. Of the DIET proper under different kinds of fever.—Of strong craving for particular and often unusual articles of food or drink.—Under what circumstances to be considered as indication of nature, and freely indulged.—Remarkable examples of this.

167. Of the third general indication, viz. *to restore the due train or order of succession in those functions which have had it disturbed*.—This *in part* fulfilled by the means adapted to the two first indications; but often speedily and effectually accomplished by exciting *another* commotion, which breaks the *morbid* train, and allows the *natural* one to be resumed.—No specific remedy for this purpose:—occasionally effected by different and even opposite means;—and hence medicine stigmatized by the ignorant and interested as merely conjectural.—Injustice of the charge shewn, and its mischievous consequences pointed out.

168. Kinds and stages of fever in which this method of cure (166) is successful or safe—Often injudiciously attempted by cordials and stimulating diaphoretics,—Said to be accomplished in many cases by profuse bloodletting;—is *certainly* so in others by cold affusion;—but most effectually in general by *Emetics*.—Rationale of their operation; some more efficacious than others;—why so.—Occasionally fail altogether, or give only a temporary relief.—Means proper to aid their good

effects, or to secure them when obtained,—cathartics,—diaphoretics,—diluents,—pediluvium,—blisters.

169. Remarks upon these *adjuvantia* in the cure of fever,—and the cases to which they are respectively adapted.—Blisters operate doubly, viz. as evacuants,—and as stimulants.—Circumstances to which one or other or conjoined operation more especially suited;—period, and place of application regulated accordingly.—Dr. Lind's testimony of their great usefulness in the commencement of fever, subject to some doubt;—why so.

170. SINAPISMS:—operation, in what different from blisters.—Their use more confined; but sometimes greatly superior.—When especially indicated.

171. Other remedies occasionally employed;—but these rather suited to particular fevers, and to be considered under them respectively.

172. The symptoms occurring in individual cases of fever, so various in *degree* and *kind*, as to make their combinations at first appear innumerable; but certain limits to these combinations evident on farther observation; and fevers accordingly distinguished into *genera* by their leading and characteristic marks; and into *species* and *varieties* by their secondary and accidental symptoms.—The *purser* forms of each, however, or the *genera* of fever, can alone be described and treated of in a course of lectures;—a discriminative knowledge of the *species* and *varieties*, being acquired only by personal attention to the influence of constitution, habit of body, climate, season, and other causes, as illustrated by clinical practice.

Of Simple Inflammatory Fever.

173. The *καῶσις*, or *febris ardens* of the ancients: the *SYNOCHA* of Cullen; — origin and meaning of the name.

174. Characteristic symptoms; — shivering followed by violent and continued heat, — flushed countenance, — suffused redness of eyes and skin, — frequent, strong, and hard pulse; acute pain of head and loins; — heaviness — and aching of the limbs; — white and dry tongue; — thirst; — costiveness and high-coloured urine; — vigilance, or disturbed and delirious sleep: — occasionally tightness across the chest, intolerance of light, &c.

175. Why not so common as the other kinds of fever, and why less so now than in former ages, — shewn from the circumstances of constitution necessary to its existence. Persons especially liable to it; — predisposing and exciting causes.

176. Sometimes terminates in inflammation of the brain, — lungs, — liver, — intestines, — or joints; — or changes its form, and approaches to that of typhus, — thereby constituting the *Synochus* of Cullen.

177. Remedies: — bloodletting, — cathartics, — antimonial diaphoretics, — nitre, — blisters; — opiates and cold affusion? — Remarks on these, and on certain combinations of medicine which display peculiar powers. — Emetics seldom required or useful in *Synocha*; and why.

Of the Sub-Inflammatory Fever of Cold Climates.

178. The *Synochus* of Cullen: — his definition of it. — Circumstances in which it differs from *Synocha*, illustrated by — the season of the year, — the constitutions and habits

in which it chiefly takes place, and the symptoms that attend it; especially by the speedy and great change from the *first* or sub-inflammatory stage, to that of *oppressed power*, as marked by—the state of the tongue,—pulse,—excretions,—countenance,—eyes,—and brain.

179. Question—how far connected with contagion either as a *cause* or *consequence*;—and therefore, in what sense Dr. Cullen's definition to be admitted.

180. Variation of treatment from that proper in Synocha:—an opposite *extreme* too often pursued in the *second* stage;—reason of this mistake, and its bad consequences shewn.—Why venesection *less*, and purging *more* necessary.—Certain purgatives especially useful: proofs of this, and marks whereby to regulate their frequency and strength.

181. Other means proper:—diaphoretics,—pediluvium;—and occasionally emetics,—blisters,—opiates,—as indicated by particular symptoms.

Of Intermitting and Remitting Fevers.

182. DEFINITION;—fevers consisting of repeated paroxysms, which seldom recur oftener than once in twenty-four hours, and have a complete intermission, or very considerable remission between them.—Vulgarly termed Agues;—whence the name.

183. The symptoms attending the respective stages of an Intermitting, already described (par. 15.)

184. Miasmata (51) arising from moist soils impregnated with a quantity of vegetable matter in a state of *septic* decomposition,—the *essential cause* of both Intermitting and Remitting Fevers:—hence such fevers *endemic* in marshy districts; and occasionally prevail *epidemically*



during very wet seasons, even in high and usually dry places (52), so as to appear contagious.—Reasons for thinking *pure Intermitents* never contagious; but that *Remittents* sometimes are so.—Causes co-operating with Marsh Miasmata to give the *remitting* form:—hence shewn why Intermitents and Remittents often change into each other, and both into Continued Fever;—why reverse of this last change less frequent.

185. Intermitents in temperate and cold climates most common in Spring and Autumn:—reason of this, —and also why the *vernal* are milder, with somewhat of inflammatory diathesis, —while the *autumnal* are more severe, and rather shew a tendency to the low-continued, or typhus form.

186. Division of Intermitents according to their periods of recurring; — as Quotidians, —Tertians, —and Quartans:—occasional instances of more distant periods, as Quintans, —Sextans, —Octans, &c.; —but these very rare, and then seldom steady.—Other divisions into Single, —Double, —and Triple Tertians and Quartans; —Sub-intrants or Sub-Continued, &c.

187. First three types by far the most common, and especially the Tertian.—Their respective characters as to hours of attack, —length and severity of paroxysm, —comparative danger, —and difficulty of cure.

188. Intermitents and Remittents also variously denominated from particular or predominant symptoms; as *Leipyrria*, —*Assodes*, —*Elodes*, —*Syncopalis*, —*Carotica*, —*Epileptica*, —*Tetanodes*, &c. accordingly as the paroxysm is marked by —unusual coldness, —excessive heat and dryness, profuse and long continued sweating, —or is attended with fainting, —stupor, —convulsion, —or violent

spasms.—Lastly, they are called *regular* or *irregular*,—*mild* or *malignant*,—*bilious* or *inflammatory*,—accordingly as their type is steady or variable,—their symptoms moderate or dangerous,—or as they appear with redundancy of bile,—or with inflammation of some important part, viz. the liver,—lungs, &c.

189. These distinctions (188) often useful in directing our attention to the relief of certain organs and functions of primary consequence; and especially in those countries where such fevers proceed with great rapidity to a fatal termination,—or to lay the foundation of other slower, though not less dangerous diseases:—But that drawn from the period of recurrence, most important in general; as marking the time we have, to employ with effect some of the most valuable remedies.

190. PROGNOSIS,—to be drawn from the age, constitution, and habit of the patient;—the season of the year;—the type of the fever,—its degree,—its being sporadic or epidemic;—and its being simple and regular,—or anomalous, and accompanied with other diseases.

191. Consideration of the question made by several authors,—How far it is right to put an early stop to mild intermitting fever.

192. THE TREATMENT of simple Intermitting Fever consists in,—FIRST,—(when the strength and other circumstances will allow of it) administering near the accession, certain remedies capable of exciting an opposite action or commotion in the system, so as to break through or suspend the morbid train about to take place, and thereby entirely supersede or greatly mitigate the expected paroxysm; e. g. Emetics,—Opiates,—various stimulating articles taken into the stomach, or applied

externally. Circumstances under which one or other of these means is more especially proper;—or which give a preference to certain individual articles over others capable of fulfilling the general intention.—SECONDLY,—When the paroxysm is already present,—mitigating the violence of the symptoms proper to the several stages respectively;—as of the *Cold Stage*, by the warm bath,—pediluvium,—warm diluents, &c.; of the *Hot Stage* by Opiates,—by bloodletting (?)—by Cold Affusion (?)—cold drink,—Nitre—Antimonials,—purgatives, &c.;—of the *Sweating Stage*,—by regulation of external temperature,—cooling subacid, or diluted vinous liquors.—THIRDLY,—When the paroxysm is over,—taking advantage of the intermission, to increase the tone of the System, and thereby to postpone, mitigate, or entirely prevent a recurrence, as well as to obviate the chance of subsequent diseases;—by—various tonic remedies, as Cinchona,—Cort. Salicis,—Cort. Swieteniaë;—by simple bitters, either alone, or combined with vegetable or fossil astringents, and with Aromatics;—by certain metallic preparations,—as Solutio Kali Arsenicati,—Zincum Vitriolatum,—different Chalybeates, &c.—Directions as to the choice, dose, and management of these several remedies.

193. Variation of treatment necessary when the Intermittent is accompanied with inflammation or congestion in the—liver,—lungs,—brain, &c.—or attended with diarrhœa or dysentery,—or with obstructed or enlarged liver or spleen, and their consequences,—jaundice,—dropsy, &c.

194. Treatment of *Remitting Fever*—different—according to the nature of the cause which co-operates with

the Miasmata to give the remitting form,—to the particular tendency it shews to the inflammatory,—bilious,—or typhoid form,—and to its being accompanied with one or other of the symptoms or diseases enumerated above (193).

Of the Endemic Fever of Tropical Climates.

195. CAUSES of this fever operating on the natives and long resident inhabitants of such climates, as well as upon new comers;—miasmata,—heat,—fatigue,—occasional intemperance,—certain conditions and sudden changes of the atmosphere.—Assumes the Continued,—Remittent,—or Intermittent type according to—the season of the year,—the constitution of the patient,—and the combination of exciting causes.—Often changes from one of these types to another.

196. SYMPTOMS of the two first types, as constituting the *ordinary Bilious Continued*, and *Bilious Remitting Fever* of hot Climates.—FIRST STAGE,—heaviness,—anorexia,—general lassitude,—occasional transient chills, succeeded by hot flushes, and these by constant and often intense heat of skin,—quick and throbbing, or hard pulse;—headach;—glairy, white, or buffy tongue;—nausea,—pain, and often burning heat at stomach,—retching,—vomiting of slimy or bilious matter;—great restlessness,—deep sighing,—excessive anguish and sense of oppression, particularly referred to the præcordia;—flushed countenance;—suffused yellowish redness of eyes;—high coloured bilious urine,—strangury;—partial sweats, of a peculiar faint smell;—great watchfulness;—delirium:—SECOND STAGE;—Pulse becomes weaker, and less frequent;—heat considerably diminished;—clammy per-

spirations;—tongue black and crusty;—retching almost incessant, often bringing up a coffee coloured matter;—hiccup;—black and foetid urine and stools;—death-like sensation of faintness at times: Occasionally, yellowness of the whole body;—lethargic stupor or wild delirium;—tremors,—convulsions,—death.

197. Anomalous symptoms;—universal numbness;—tetanic spasms;—suppression of urine;—syncope;—great coldness of particular parts, &c.

198. Symptoms especially marking the *aggravated* form of the Tropical Endemic, and constituting the *Causus Icterodes*, or ARDENT YELLOW FEVER.—*First Stage*; Sudden and violent attack of pain in the head, back, thighs and legs,—with giddiness,—great prostration of strength, and often a fit resembling the stupor of apoplexy or intoxication;—acute burning pain at stomach, and almost continual vomiting, at first of slimy, but afterwards of dark coloured, and sometimes bloody fluid;—eyes red and protruding;—face and neck suffused and tumid;—countenance grim and terrific;—arid scorching heat of the skin;—tongue leaden coloured and glairy, or morbidly clean and red;—intense thirst;—extreme restlessness and anxiety;—hæmorrhage from the nose.—*Second Stage*;—After a paroxysm marked by a number of these symptoms, and lasting from a few hours to two or three days, a deceitful appearance of remission takes place; the vomiting, headach, burning heat, and delirium, greatly abate, or nearly disappear; the pulse loses its hardness, and falls even below the natural frequency; the patient eats, drinks, and declares himself well or nearly so. But the interval is often short; and either a repetition of the same violent symptoms takes place,

with marks of greatly diminished *power*, or the patient sinks at once into a comatose state, only interrupted by hiccup, and vomiting of dark coloured fluid,—with black and fetid stools,—yellow suffusion of the skin, varying in degree from a sallow hue to a deep orange tint,—interspersed with livid blotches, or ecchymoses,—and accompanied with discharge of blood from various parts, especially the nose, mouth, and anus:—the scene closing either in a convulsive struggle,—a state of torpid apathy,—or in a calm and collected resignation of life.

199. Such the general picture; but various anomalies observed in the mode of attack;—and in the number, violence, and duration of the symptoms; arising from constitution and habit,—the nature and degree of the predisposing and exciting causes,—and the preventiory measures—or early treatment of the disease.

200. Causes tending to produce this aggravated form of the tropical fever, and especially operating on newly arrived Europeans;—irritable, tense fibre;—rich blood,—sudden change of climate,—imprudent exposure,—continuance of accustomed and unsuitable diet and habits,—anxiety of mind and fear of death,—or despondency and indifference to life.

201. Question—how far contagious?—and variance among writers concerning it.—Proofs of its being occasionally joined with contagion, and assuming a new character in consequence, viz. the *Typhus icterodes*, or MALIGNANT YELLOW FEVER.

202. Description of appearances on dissection, and the remarkable discordancy of different writers.—Opposite opinions also respecting the yellowness;—and an attempt

to solve the difficulty, and establish some general and consistent views of the disease.

203. PROGNOSIS—extremely uncertain; but, in general, proportioned to the *violence of action* on the one hand,—and the *defect of power* on the other.

204. TREATMENT of the *Ardent and Malignant Yellow Fever*, hitherto extremely dissimilar and unsuccessful:—causes of this.—Remarks upon the different means recommended; and an endeavour to shew how far they are respectively adapted to particular symptoms or stages of the complaint:—blood-letting;—laxatives;—emetics;—cold affusion;—tepid bath;—alternation of these two;—Mercury;—Blisters;—Opiates;—Antimonials: — Cinchona, — Angustura, — Serpentaria; — Æther;—Wine;—Essence of Spruce;—Coffee;—Acid fruits;—Cold Water, &c.

Catarrh.

205. Meaning of the term.

206. DEFINITION; inflammatory state of the mucous membrane lining the nose, fauces, trachea, and bronchia,—with pyrexia, often contagious.

207. SYMPTOMS;—fullness of the Schniederian membrane, with subsequent increase of secretion,—progressively extending to the fauces, trachea, and lungs, and causing a sense of rawness and soreness of these parts, accompanied with more or less cough and expectoration:—Stiffness, and often great tenderness of the skin round the nose and eyes;—gravedo;—dullness and confusion of thought;—stiffness and soreness of the cervical muscles;—general lassitude and aching of the limbs;—occa-

fional chills, particularly along the spine;—quickened pulse;—increased heat;—dryness of skin;—whiteness of tongue;—evening exacerbation and morning remission of fever.—Eruptions about the nose and mouth.

208. PREDISPOSING and EXCITING CAUSES;—individual disposition:—sudden change of temperature, and especially cold applied to the head, neck, and chest;—certain states of the atmosphere operating extensively, and giving rise to an *Epidemic Cold*, or *Influenza*;—Contagion.

209. Account of some of these Epidemics, particularly that of 1782, and of 1802-3;—their general and peculiar symptoms; and their respective results.

210. TREATMENT of SIMPLE CATARRH, or that arising from ordinary causes;—laxatives,—diaphoretics,—pediluvia,—blisters,—bloodletting,—Opiates;—demulcents,—expectorants;—emetics:—Inhaler:—remarks on these.

211. TREATMENT of EPIDEMIC CATARRH, or *Influenza*, to be regulated not only by the constitution and habit of the patient, but—by the general character,—and peculiar or urgent symptoms of the disease;—and especially, by the sudden change which often takes place, from an apparently active inflammatory state, to one of great prostration.—Illustration of this, drawn from the history of such epidemics, particularly that of 1802-3.

212. For the treatment of chronic Catarrh, see Phthisis.

Of the Nervous Fever.

213. The *Febricula* of Manningham,—the *Slow Nervous Fever* of Huxham,—the *Typhus mitior* of Cullen.—

Reasons for preferring the name adopted above, as designating a description of fever requiring a particular treatment.

214. SYMPTOMS;—general languor and lassitude;—loss of appetite, and depraved taste;—dulness and confusion of thought;—sadness of mind, and dejection of countenance;—respiration short, with frequent sighing;—general chillness, with occasional transient and partial flushings,—and disturbed or unrefreshing sleep:—these often continuing for several days without confinement, and with but little notice, till followed by aching in the back and limbs,—dull pain in the head, especially the occiput; giddiness, and tinnitus aurium;—nausea, and vomiting of insipid fluid;—frequent, weak, and often intermitting pulse, with sense of anxiety and oppression about the *præcordia*, and excessive faintness, especially in the erect posture.—There is still little thirst or heat of skin,—the tongue is tremulous, moist, and covered with a whitish mucus,—the urine watery or whey-coloured; and the bowels rather costive;—but as the disease advances, the heat increases,—the tongue becomes dry and brown, or morbidly red,—the urine scanty and high-coloured,—and either considerable sweating or diarrhœa comes on, with deafness, drowsiness, and delirious sleep,—or *coma*, *sub-sultus tendinum*,—cold extremities,—clammy sweats, and involuntary discharge of urine and stools take place, followed by slight convulsions and death.

215. A salutary crisis is often preceded by slight ptyalism, or moderate diarrhœa; but especially by a gentle, warm, and equable perspiration.—Deafness without insensibility is favourable, as are scabby eruptions about the mouth, or boils in other parts:—while profuse eva-

evacuations,—partial clammy sweats,—cold extremities,—subsultus, and insensibility, with tremulous pulse,—portend great danger.

216. The CAUSES *predisposing* to this form of fever are,—a thin, pale, and weak habit of body,—great sensibility of mind,—much study and watching,—vegetable or poor diet,—grief,—anxiety,—profuse evacuations, excessive venery.—The EXCITING CAUSES are,—cold, especially with moisture,—occasional debauch,—contagion.

217. General character of the disease deduced from these several circumstances.

218. TREATMENT as founded on this character:—Brisk emetic:—gentle laxatives;—Blisters—Diffusive diaphoretics—pediluvium, — Camphor, — Musk, — Castor;—Opiates;—Wine;—Serpentaria,—Vol. Alk.—Serum vinosum vel Sinapeos:—&c.

Of Typhus Fever.

219. The *Malignant contagious*,—*Petechial*,—*putrid*,—*Fail*,—*Hospital*, and *Ship Fever* of Authors:—Whence these names;—Derivation of the word *Typhus*,—and reason for adopting it.

220. SYMPTOMS, in the beginning occasionally like those of Nervous Fever (214); but the attack in general more sudden and violent, and the progress more rapid and alarming:—usually considerable chillness, attended with, and gradually ending in, acrid, and often burning heat with little remission;—great prostration of strength, general anguish of body and depression of spirits;—short and anxious breathing;—nausea, and vomiting, sometimes bilious;—pulse quick, small, and often hard—distressing headach, noise in the ears, and throbbing at the

temples;—eyes sunk, dull, and listless, with dusky, sallow, dejected countenance,—or ferrety, red, and rolling, with restlessness and fierce delirium;—tongue generally foul, often brown or black, with blackness of the lips, and fetid sordes about the teeth:—sometimes considerable thirst, sometimes none.—Urine scanty,—at first little changed, but progressively becoming high coloured, sometimes greenish, or sooty, and generally of a strong smell.—Stools dark coloured and offensive, and in the advanced stage often profuse and involuntary:—Occasionally hæmorrhage from the nose, intestines, &c. but oftener extravasations of blood from the cutaneous vessels, producing red, livid, or purple spots, weals, or marks like bruises, on the neck, breast, arms, and other parts; and by their colour and extent shewing the malignity and danger of the disease.

221. Great variety in the symptoms, in number, degree, and kind; arising from—constitution,—habit of body,—climate and season,—prevailing epidemic influence,—and the force and concurrence of the several predisposing and exciting causes.—Account of the chief varieties, as shown in the principal organs and functions affected,—and leading to important steps in the treatment.

222. PREDISPOSING CAUSES—not only those enumerated in par. 216, but many others,—some of them opposite in their nature;—plethora (32),—long continued heat;—excess in animal food and strong liquors,—foul air,—epidemic influence.—The grand EXCITING CAUSE—accumulated human effluvia, or the morbid vapour arising from the bodies of persons already labouring under the same complaint.

223. PROGNOSIS: A gentle, universal, warm perspiration, with diminished frequency and increased fulness of pulse,—cleaner tongue,—scabby eruptions about the mouth,—and moderately loose stools, are favourable changes:—while partial clammy sweats,—weaker, and irregular, or tremulous pulse,—dry, black, and chopped tongue,—tension of the abdomen,—involuntary urine and stools,—coma, or constant delirium,—plucking the bed clothes,—laboured respiration, and difficulty of swallowing,—precede a fatal event.

224. General character of the disease,—as deduced from its prominent symptoms, and its chief exciting cause,—contrasted with that of Nervous Fever, and applied to the plan of cure.

225. TREATMENT—consists, in part, of all the three indications already considered under the General Cure of Fever; but especially—in the *First Stage*—diminishing excessive action without lessening power;—and (where the strength will permit) trying to supersede the *febrile* by exciting another commotion:—in the *Second Stage*,—by increasing or restoring those functions and actions which are impaired or suspended,—so as to maintain the power of the system until the *specific febrile impression* has ceased;—and, as a principal means of effecting this, correcting the *septic tendency* that displays itself in the secreted fluids and circulating mass:—Throughout the whole progress of the case, paying attention to every urgent symptom, whether proper to the disease, or accidentally conjoined with it.—Remarks upon the several remedies more especially calculated to answer these intentions,—and the *stages* or *circumstances* of the disease, to which they are respectively adapted;—Emetics—laxatives;—

Cold Affusion;—blisters;—leeches;—diaphoretics;—pediluvium, and tepid bath;—Wine;—Serpentaria,—Cinchona;—Acids;—Carbonic Acid Gas, — Fermenting liquors, —Yeast.—Opiates;—Camphor;—Phosphorus? &c.

Of Inflammation in General.

226. Though the rise, progress, and result of Inflammation more obvious than those of any other diseased state, yet its nature in general, and its treatment in particular circumstances, by no means agreed upon.—The subject highly important.

227. Essential symptoms;—pain,—increased redness and heat,—with swelling or tension of the part:—these varying greatly both in positive degree and in relative proportion.

228. Example of the progressive steps (227) in Ophthalmia from external irritation.—Preternatural accumulation and distention evident.—Proofs of these taking place more especially in the *arteries*,—from the colour of the blood,—from injecting the part.—Conclusion from hence as to the real seat of inflammation.

229. Similar phenomena (227,—8) occur *spontaneously* also.—Various theories adopted at different times to explain them:—unnecessary to discuss all these,—Boerhaave's the first deserving notice: recapitulation of this (60); and its application to solve the phenomena, shown to be inadequate.

230. General preliminary sketch of the Sanguiferous System:—Arteries chiefly composed of *tendinous* and *muscular* coats, which, though in a certain degree *antagonists*, yet co-operate in carrying on the circulation.—

Relative proportion of these alters as arteries diminish in size:—future application of this (235.)

231. Universal property of living muscular fibre, to contract upon the application of various agents, collectively denominated *stimuli*.—Question,—whether susceptibility of muscular fibre to receive impressions from *stimuli*, be *inherent* or *derived*,—not necessary to the present subject,—but all susceptibility evidently dependant on nervous influence, and the latter opinion most probable.

232. Muscular fibres of arteries, in common with all others, are excited to contract by every agent, whether *mechanical*, *chemical*, or *specific*, that can be applied to them:—but the blood their *peculiar* and *proper* stimulus,—and its action threefold.

233. Generation or evolution of animal heat, the most splendid physiological discovery of the present age.—Short recapitulation of the theory (77-81), and conclusion of its being a *vital* as well as *chemical* process,—additionally confirmed in Inflammation.

234. In healthy state, stimulus of blood and susceptibility of arteries exactly balanced.—*First* effect of over-stimulus on muscular fibre—*excessive contraction*;—*second* effect—proportional *fatigue*, and *relaxation*.—Application of this to case of inflammation excited by *external* stimulus (228.)

235. Every inflammation a state of *arterial congestion*, greatest at central point, and gradually lessening as we recede from this.—Inflammation always begins in capillary arteries and smaller branches;—this accounted for from their structure, (230) and shown to be a wise provision.

236. More modern doctrines of Inflammation ex-

amined.—Theory of Dr. Cullen;—supposes the proximate cause of spontaneous inflammation to arise, from *irregular distribution of blood occasioning increased action, which is supported by spasm on the extreme vessels.* *—Spasmodic constriction of arteries shown to take place in certain states of inflammatory disease affecting the sanguiferous system at large:—this, however, not on the *extreme* arteries, but on the larger vessels and their branches,—and not of uniform occurrence even on them.—Still less evidence of spasm on *extreme* arteries when inflammation altogether local.—Conclusion against the doctrine in question.

237. Dr. Fowler's theory of inflammation—as consisting in *increased action alone*, †—more simple than Dr. Cullen's; and sufficiently explains both the phenomena and treatment of *tonic* inflammation,—but not applicable to the opposite kind.—Does not require a separate consideration; as the establishing *two forms* or *kinds* of inflammation, necessarily supersedes this as a *general doctrine*.

238. Latest theory—making Inflammation depend on weakened and over-distended state of arteries,—referred to Dr. Lubbock and Mr. Allen as its authors;—but shown not to be new.—Examination of it as delivered by Dr. Wilson. ‡

239. Takes for his example a state of *advanced* inflammation, in which the capillary arteries *considerably dilated*, and of course *weakened*.—But *debility* and *in-*

* *First Lines of the Practice of Physic*, § CCXLV.

† *Tentamen Inaug. Quædam de Inflammatione complectens*. Auctore RICHARDO FOWLER. Edin. 1793.

‡ *A Treatise on Febrile Diseases*, by ALEX. PHILIPS WILSON, M. D. Vol. iii.

creased action not incompatible:—familiar illustration of this.—Action, however, not always increasing whilst inflammation continues;—often arrives at greatest height very soon, and then declines more or less rapidly according to circumstances:—but no period of inflammation where *action* not present.

240. Dr. Wilson's experiments on frog's foot with Alcohol, shewn to be inconclusive from the torpid nature of the animal.—This virtually admitted by himself in the instance of the frog's heart.—The result of his experiment on the mesentery of a rabbit, equally inapplicable, from the degree of mechanical violence used.—His objections to Dr. Fowler's experiment on a rabbit's ear, examined, and proved to be futile.

241. Mr. Cooper's experiments quoted:—increase of action distinctly observed by him in the branches connected with the red and turgid capillaries;—the same acknowledged by Dr. Wilson:—application of this to the case of progressively extending inflammation.—Proofs of the blood not being stagnant in inflamed arteries.

242. Falsity of the theory in question (238) finally demonstrated, by shewing the mischief to which it would lead in practice.

243. Short recapitulation of the several doctrines examined above (229. 236-7-8), and general conclusion respecting them.

Remote Causes of Inflammation.

244. These various, but all either *directly* or *indirectly* produce increased action;—all therefore either *directly* or *indirectly stimulant* (231).—Abstract nature of *stimulus*

obscure: but its operation shewn to be *primarily* and *essentially* upon the nerves, and, *cæteris paribus*, proportioned to their number and sensibility.

245. Universal effect of *direct* stimulus within certain limits—to increase the *feeling* or *susceptibility* of the stimulated part;—and this increase proportioned to the original sensibility, and the degree of stimulus applied:—whence, even natural and customary stimulus of blood becomes morbidly great.—Prodigious increase of sensibility under inflammation, shewn in certain membranes:—and Haller's conclusion respecting the seat of pain in such cases, refuted.

246. Where *direct* stimulus applied in excess, the remote or exciting cause obvious. But inflammation, both topical and general, often follows the application of *Cold*, and often arises *spontaneously*:—how account for these?

247. Apparent dilemma here; but the fact perfectly reconcileable with true Physiology and Pathology;—and both *inflammation* and *gangrene* from Cold, satisfactorily explained.—Illustration in the case of an officer*.

248. Spontaneous inflammation commonly said to arise from *irregular distribution of blood* (236); this cause, however, both inadequate and gratuitous.—Inflammation of considerable organs during fever, generally attributed to particular *weakness*;—but *weakness* shewn to be a term of vague meaning, as accompanying states of the body very differently disposed to inflammation.

249. Another explanation offered, and primary cause traced to change in nervous influence.—Application of this shewn to be universal.—Determination to particular

* See *Observations on Apparent Death, &c.* By JAMES CURRY, M.D. p. 86, 8vo. Johnson, 1792.

parts or organs however, no doubt *aided* by occasional circumstances not easy to account for.

*Division of Inflammation into two principal Kinds,
viz. the TONIC and ATONIC.*

250. Preliminary observations on *Power* and *Action* in the living body (137).

251. Application of this distinction (250) in the example of Ophthalmia; where both kinds frequently take place during the same attack, only varying in their relative degree.—*Atonic* inflammation the result of repeated attacks of the more *tonic* kind; but inflammation often *atonic* from the first:—striking instance of the latter suddenly occurring in India; and occasionally observed in this country.

252. The difference of inflammation, as to *kind*, farther proved from the mode of cure found most appropriate to each.—Subdivision of *atonic* inflammation as attended with *excess*, or *defect* of sensibility.—General conclusion.

Explanation of the Symptoms of Inflammation.

253. PAIN;—cause of it;—very different in degree in different cases.—REDNESS;—why *always* present.—TENSION and SWELLING;—under what circumstances each more especially occurs.—HEAT;—its actual increase shewn to be little beyond natural temperature of internal parts;—sensation of it fallacious.

254. Difference in these symptoms respectively, in the two kinds of inflammation.

Of the Species of Inflammation.

255. Dr. Smyth's division of inflammation into *five* species, as occurring in parts differing in structure, viz. in the SKIN—Erysipelatous;—in CELLULAR MEMBRANE—Phlegmonous;—in DIAPHANOUS MEMBRANES;—in MUCOUS MEMBRANES;—in MUSCULAR FIBRES—Rheumatic*.—But all these parts shewn to be liable to simple phlegmonous, or suppurative inflammation; and the above distinctions to be of little or no practical use.

256. Structure of parts rather occasions particular *termination*, than specific difference in *nature* or *kind* of inflammation.—The *Species* chiefly owing to the nature of the *exciting cause*,—as *Variolous*,—*Syphilitic*, &c.;—or to some peculiarity of constitution or habit,—as *Gouty*,—*Scrophulous*,—*Cancerous*,—*Erysipelatous*, &c.

Of the Terminations of Inflammation.

257. The terminations of inflammation reducible to *five* heads, viz. *Resolution*,—*Adhesion*,—*Effusion*,—*Suppuration*, and *Gangrene*.—*Scirrhus* also reckoned by some among the number; but although sometimes a *termination* of inflammation in glandular parts, yet oftener *precedes* and *causes* it.

258. RESOLUTION.—Origin of the term among the chemical physicians;—its meaning as now used.

259. ADHESION;—in what circumstances it chiefly occurs;—Mr. Burns's criticism respecting it,—refuted.

* *Medical Communications*, vol. ii. Art. xix.

260. EFFUSION, — peculiar to cavities lined with smooth diaphanous membranes;—variety of the matter effused in different situations and circumstances.

261. SUPPURATION;—occurs in every vascular part except the tendons.—Phenomena accompanying it;—alteration of pain;—diminution of heat;—change of colour in the skin, when near the surface:—rigors,—these perhaps rather collateral effects than direct consequences of suppurative change;—circumstances under which they especially happen.

262. Enumeration of the principal opinions respecting Pus:—1. BOERHAAVE's—that it was made up of the fluids effused into wounds, mixed with a portion of the solids dissolved and slightly putrid, and united into an uniform, white, thick, glutinous, and oily fluid*.—2. GRASHUIS'—that it consisted of various heterogenous particles both solids and fluids, *but chiefly of the fat*, mixed together, and undergoing an incipient putrefaction under stagnation and heat†.—3. SIR JOHN PRINGLE's—that it is formed by a fermentative process from the serum effused into ulcers, while the thinner parts are dissipated by the heat‡.—4. DE HAEN's,—that it is generated in the blood, from a peculiar matter formed there, not only under certain general states of disease that are *not inflammatory*, but in some persons even from a *natural diathesis*§.—5. DR. MORGAN's,—that it is a new secretion, produced by a peculiar action

* BOERHAAVE *Aph.* 206. 387. 832.

† GRASHUIS *De Generatione Puris*, cap. 1. p. 18 et 22.

‡ PRINGLE's *Obs. on Dis. of the Army*, App. p. lxxxii. 6th edit.

§ DE HAEN *Ratio Medendi*, vol. i. cap. xi. *De Puris Generatione*.

of the vessels * :—this opinion at present commonly attributed to Mr. John Hunter.—6. MR. BURNS's,—that Pus is formed by an operation of the living principle, from the *interstitial fluid*, and the *nutritive particles* †.

263. Strictures on some of these opinions.—Mr. Home's arguments for Pus being a secretion ‡—examined;—and his position disproved from his own experiments.—Mr. Burns's idea (6 *supra*) shewn to be a gratuitous assumption, neither admitting direct proof, nor countenanced by facts.—Remarks on the objections made to Sir John Pringle's theory,—and their irrelevancy pointed out.

264. Conclusion,—that Pus is not a secretion, but acquires its characteristic properties by a spontaneous change taking place, under the influence of heat, in a mixture of Serum and Lymph in certain proportions, after quitting the vessels.—Variety of appearance which the effused fluid assumes, explained from the different proportion of its ingredients, and the circumstances under which it is poured out :—whey-like,—flakey,—curdly,—clotted or cohesive,—puriform,—purulent.

265. GANGRENE and SPHACELUS—defined,—and their relation to each other shewn :—may be either *direct*, or *intermediate*;—distinction between these;—senile mortification,—gangrene during and after Typhus fever,—after Erysipelas,—after contusions, wounds, or

* *Tentam. Inaug. De Puris Confectione, Auctore JOHANNES MORGAN.*
Edin. 1763.

† *Dissertations on Inflammation, by JOHN BURNS, Surgeon, vol. i.*
p. 404-5.

‡ *A Dissertation on the Properties of Pus, by EVERARD HOME, F.R.S.*
4to. Lond. 1788.

violent Inflammation.—In what parts each kind respectively most frequent.—Signs of its taking place.

266. SCIRRHUS;—peculiar to glandular parts?—oftener precedes than follows inflammation;—and when the latter, something peculiar in the inflammation, often connected with constitutional disposition (256).

General Cure of Inflammation.

267. This resolves itself into a single or a double indication, according to the *kind* (251) of inflammation present.

268. The CURE of *Tonic Inflammation*, or excessive vascular action with considerable power, will consist in—employing such means as *directly* tend to lessen the excessive action;—which is done by— α . removing, as far as it is practicable, those external causes, whether *mechanical*, *chemical*, or *specific*, that have been applied, and still continue to act;— ξ . lessening, to a certain degree, the stimulus arising from those agents that are natural, viz. the Blood, and Animal Heat,—by blood-letting,—by cold applications;— γ . diminishing the morbid sensibility and irritability by sedative remedies, e. g. Preparations of lead,—*Digitalis*?—*Opium*? &c —Remarks upon the extent to which several of these means (ξ and γ) are to be carried,—with directions for their proper use.

269. In the CURE of *Atonic Inflammation*,—or increased action with inadequate power,—beside employing the means specified above (269), and occasionally others which have a peculiar sedative operation adapted to particular *species* of the disease,—the *power* of the

vessels must be *supported* or *increased*, by the local or general use of astringent and tonic remedies.—The principles laid down in par. 136-7, and 158, illustrated here by cases both of local and general action, and applied to the treatment of atonic inflammation.—Variation necessary, according to the *stage* of the disease,—or to its being attended with *increased* or *diminished sensibility*, (252).

270. Both *kinds* of inflammation subject to considerable variety in *degree*,—and the one or the other character predominating, according to—the greater or less strength or *power* of the vessels to maintain themselves under a state of increased action,—the original or acquired sensibility of the part affected,—and, the nature and force of the exciting cause.—Difference of treatment arising out of these particulars.

271. Circumstances whereby to determine the general character or *kind* of the inflammation, collected from—the patient's age, constitution, and habit of body ;—the origin, progress, and present state of the disease ;—and the effects of the remedies (if any) already employed.

272. The treatment of *Specific Inflammations*, such as the Gouty,—Erysipelatous, &c. as far as it differs from that of SIMPLE INFLAMMATION, will be considered under their respective heads.

Treatment of Suppuration.

273. This, as far as respects local applications, comes under the province of Surgery ; but *internal* remedies often necessary ; and these are either such as increase the tone and vigour of the whole system, or correct specific morbid dispositions,—as the scrophulous,—syphilitic,—cancerous, &c.

Treatment of Gangrene

274. Will in part depend upon the causes inducing it,—and its being *direct* or *intermediate* (265); but the general indication is,— α . to support and increase the *power* of the vessels which yet retain the principle of life;—and— β . to prevent or retard the septic dissolution of the sphacelated parts. Remarks on the means calculated to answer these purposes:— α . warmth,—nourishing food,—Wine,—Cinchona,—Carbonic Acid,—Camphor,—Opium,—Musk and Ammonia, &c :— β . fermenting cataplasm,—Nitrous Acid lotion,—Oxygenated Nitrous Gas,—Camphor dissolved in Oil of Turpentine?—&c.

Treatment of Scirrhus.

275. Ambiguity of the term *Scirrhus*, as often applied to express specifically different kinds of morbid hardness in glandular parts.—Necessity of investigating the particular kind of induration therefore, in order to render the treatment successful, or even safe:—illustration of this in Cancerous,—Scrophulous,—and Syphilitic indurations.—Genuine scirrhus perhaps incurable in the advanced state; why so.—Remarks on certain remedies employed against scirrhus.

OF THE PHLEGMASIÆ,

Or Inflammation of Parts, with General Febrile State.

276. Sometimes from the *extent* of the local inflammation,—from the great sensibility of the part affected,—

or from its importance in the constitution, the whole Arterial System partakes of a corresponding state;—and therefore demands attention, as well on its own account, as on that of the part primarily affected.

277. At other times the *general* inflammatory affection arises from the same exciting causes which occasion the *local* one; and comes on along with, or even precedes it.—This more especially what constitutes the Phlegmasiæ; and its application of importance in the treatment.

278. GENERAL CHARACTER OF THE PHLEGMASIÆ;—Disturbance of some internal function, with local pain, and symptomatic (?) Synocha (173);—blood sisy;—urine red;—tongue white;—heat sometimes considerable, but often moderate;—pulse quickened, and generally hard; but sometimes full, at other times oppressed or obscure.

279. Variation in the symptoms accordingly as the disease partakes of the *tonic* or *atonic* form.

280. The seat of the pain *generally* directs to the part or organ particularly affected;—but this occasionally fallacious. Examples of both;—and cautions necessary to guard against mistake in a point so important in directing the plan of cure.

Treatment of the Phlegmasiæ in general.

281. This will depend upon the distinctions already laid down with respect to the *degree* and *kind* (250-2) of inflammatory state present,—upon the importance of the organ chiefly affected,—and, upon the relative proportion between the *local* and the *general* affection, together

with their respective priority of occurrence (276-7).—Illustration of these by examples.

282. TREATMENT where the inflammatory action is of the *tonic* kind:— α . Bloodletting, general and local;—circumstances determining its extent, as collected from the patient's strength;—age,—habit of body,—mode of life,—state of pulse,—urgency of symptoms;—but much less necessary than generally supposed, if other means duly employed.—Appearance of blood drawn, a doubtful indication:—danger of the Boerhaavian doctrine shown here.— ϵ . Blisters; their use in this case explained.— γ . Application of Cold,—doubts respecting it: regulation of temperature.— δ . PURGATIVES,—different kinds required at different periods of the disease.— ϵ . ANTIMONIAL DIAPHORETICS—how to be regulated.— ζ . Calomel and Opium combined:—idea of counter irritation refuted:—principles upon which their operation may be better explained,—illustrated by actual cases.— η . Digitalis—to what stage of this form best suited.

283. TREATMENT when *power defective*.—Causes particularly giving rise to this form;—marks for ascertaining its degree.— α . Cautions respecting general bloodletting.— ϵ . Local bleeding— γ . Blisters.— δ . Purgatives,—what kind especially useful.— ϵ . Mild diffusive diaphoretics: combinations affording these.— ζ . Calomel joined with Opium.—Operation of ϵ and ζ separately and conjointly.—A mixed plan necessary towards the end, (269).

Of Ophthalmia, or Inflammation of the Eyes.

284. Usually divided into two species; 1. as situated in the membranes of the eye (*Ophthalmia membranarum*,

CUL.),—2. as situated on the margin of the eyelids (*Ophthalmia tarsi*, CUL and *Psorophthymia* of Mr. Ware.) The second species often a sequel of the first; but sometimes precedes and causes it. The division of Ophthalmia, however, according to the *kind* of inflammation (251), shewn to be more comprehensive and useful.

285. Symptoms of *tonic* ophthalmia;—Pricking or shooting pain in the fore part of the eye,—redness of the *tunica adnata*,—increased sensibility to the light,—generally with discharge of tears:—occasionally sharp pains darting to the bottom of the eye, and through the head, with considerable pyrexia (*Opthalmitis*).

286. CAUSES. Constitutional irritability of the eyes.—Mechanical violence from blows, &c.—irritation from foreign bodies, inverted hairs, &c.—Cold, especially applied with partial current of air;—intense light;—particular state of the atmosphere during certain winds;—peculiar contagion (*Egyptian Ophthalmia*);—suppressed gonorrhœa?—Remarks on these, and their respective operation explained.

287. CURE OF TONIC OPHTHALMY;—Blood-letting,—various modes of it, with directions for their choice and extent:—Purging,—what cathartics especially useful:—Cold applications;—exclusion of light:—Digitalis?—Belladonna?—Diet and regimen proper.

288. Symptoms of the *atonic* Ophthalmia;—Turgescence and redness of the vessels, with comparatively little pain in general:—This kind often combined with the second species (228.), or ends in it.—When the inflammation is of the crystalline or Erysipelatous species, the substance of the eye-lids and neighbouring parts, is also affected.

289. Description of the purulent eye of young children.

290. The predisposing and exciting causes of this kind of optholmy, besides those mentioned above (286), are—scrophulous habit,—Small Pox;—Measles;—dentition;—exanthematic metastasis;—Tinea capitis;—mercurial irritability;—syphilitic taint?—fatigue of eyes;—smoke or other acrid vapours;—frequent intoxication.

291. TREATMENT OF ATONIC OPHTHALMY;—Local blood-letting in different modes:—blisters.—Occasional purging with particular cathartics.—Opium.—Sudorifics—Emetics.—Various astringent and stimulant applications, consisting of preparations of Lead,—Alum,—Zinc,—Copper,—and Mercury;—Vinum Opii;—fomentations?—Ol. Terebinthinæ, Riga Balsam;—Electricity;—Cicuta;—Cinchona;—Cold bathing—local and general;—Errhines.—Issues—Setons—Remarks upon these, and upon some celebrated empyrical applications.

292. Occasional consequences of optholmy,—increase of the aqueous humour (*hydropthalmia*—); thickening of the coats, and turbidity of the humours (*hypopyon*),—general or partial opacity of the cornea (*albugo vel leucoma*):—nature and treatment of these last.

293. Optholmy, especially of the *atonic* kind, occasionally assumes an intermitting or remitting type;—management necessary in that case.

Of Phrenitis,

Or Inflammation of the Brain and its Membranes.

294. Origin of the name.—CHARACTER of the disease,—Intense pain, and sense of fulness or stricture,

within the head,—redness and turgescence of the eyes and face,—impatience of light and noise,—continued watchfulness, and fierce delirium, accompanied with violent pyrexia.—Difference of symptoms alledged to mark inflammation of the membranes (*Phrenitis*;—*Meningitis*?), or of the substance of the brain (*Cephalitis*, *Sauv. et Sag.*—*Sphacelismus*, *Lin.*)

295. Idiopathic Phrenitis not of frequent occurrence in this country.—Phrenitis often *symptomatic* or *secondary*,—arising during the progress of general fever,—or from metastasis in Rheumatism, Gout, Erysipelas, &c. and then partakes more of the *atonic* form.—Importance of attending to this.

296. Reasons for believing Phrenitis more intimately connected with a certain state of the hepatic system, than hitherto supposed; and views of the nature and treatment of the disease founded on this, illustrated by cases.

297. PREDISPOSING AND EXCITING CAUSES—Original tendency, often marked by general tension and irritability of fibre, and passionate temper. Violent fits of anger,—want of sleep;—concussion or other mechanical injury;—intoxication;—miasmata;—exposure to intense atmospheric heat, especially under great bodily exertion;—certain narcotic poisons:—epidemic influence;—contagion?

298. Consequences of the disease,—and an account of the various appearances observed on dissection.

299. TREATMENT;—Blood-letting general and topical;—Arteriotomy?—cold applications to the head;—blisters *near* the head:—erect posture;—abstraction of light and noise.—Purging;—Digitalis;—Antimonials;

—Sinapisms—Remarks on these several means, and on the extent to which they should respectively be carried, according to the degree of the disease, and its being primary or secondary.

OF QUINSEY IN GENERAL.

300. The Cynanche, Synanche, and Angina of authors:—origin and meaning of these terms;—include several inflammatory affections about the throat, differing considerably both in their *seat* and *nature*, and consequently in their treatment. Division of them according to these circumstances, into 1. *Angina tonsillaris*,—2. *A. pharyngea*,—3. *A. trachealis*,—4. *A. parotidea*,—and 5. *A. maligna*, or *Scarlatina Anginosa*.

1. Of Common Inflammatory Quinsey.

301. *Cynanche tonsillaris* of Cullen;—*Tonsillitis*.—**DEFINITION.** Inflammation affecting one or both tonsils, often extending to the *velum palati*, *uvula*, and parts adjacent;—marked by redness, swelling, and pain of these parts,—difficulty of swallowing, and occasionally of respiration;—sometimes without, sometimes with pyrexia;—and often ending in suppuration.

302. More rarely the inflammation attacks the *pharynx* chiefly or alone, showing scarcely any *visible* signs, and with but little difficulty of breathing, while that of deglutition is extreme;—*Angina pharyngea*.

303. **PREDISPOSING CAUSES**—Original constitutional tendency,—mercurial irritability.

304. **EXCITING CAUSES**—cold applied to the neck and fauces, or to the body in general,—especially if with

partial current of air, and when the person is overheated : —epidemic influence.

305. Quinsey generally of the *tonic* form at first attack ; but often of a mixed character, and in some persons always *atonic*. —Erysipelatous species : — this generally connected with typhoid pyrexia.

306. TREATMENT of quinsey different, accordingly as it partakes of the *tonic* or *atonic* form, —as this primary or secondary, —and as it is merely topical, or attended with pyrexia. *Remedies* ; — venesection, — scarification, — leeches, —blisters, —purgatives : — Emetics, — diaphoretics ; — acid gargles ; —Nitre : —Astringent and mildly stimulant applications. Remarks upon these, and upon the particular form or circumstances of the disease, to which they are respectively adapted. —Most effectual means of guarding against future returns of the disorder.

307. The *Angina pharyngea* oftener an extension and variety of *A. tonsillaris*, than a distinct and primary species of quinsey. —The general treatment, therefore, nearly the same as that of *A. tonsillaris* ; but its situation necessarily precludes some remedies applicable to *A. tonsillaris*, and requires others to be employed to a greater extent.

Of the Croup.

308. The *Suffocatio stridula* of Home ; —the *Angina polyposa* of Michaelis ; —and the *Cynanche trachealis* of Cullen. —Anglice *Croup*. —Origin of these names.

309. DEFINITION. An inflammation of the mucous membrane of the trachea and its ramifications, causing great difficulty of breathing, particularly of inspiration, which is accompanied with a peculiar noise ; —frequent

dry cough, with harsh sound as if passing through a brazen tube;—violent fever of the synocha kind. (173).

310. The disease chiefly attacks between the period of weaning and of puberty,—runs its course in a few days, —and the patient generally dies as if suffocated.

311. PREDISPOSING CAUSES.—Circumstances of constitution and habit of body marking those most liable to the complaint.

312. EXCITING CAUSES: — these not well ascertained; but the most obvious is,—exposure to a cold and damp evening air, especially succeeding a hot day.

313. Appearances on dissection, and an explanation of the peculiar and urgent symptoms, drawn from thence.

314. DIAGNOSIS. Symptoms distinguishing Croup from the tracheal inflammation of Catarrh and Measles.

315. History of the rise and progress of the disease as collected from authors:—whether more frequent now than formerly;—whether occasionally epidemic, or ever contagious.—Whether sometimes spasmodic rather than inflammatory.

316. Essential and peculiar character of the complaint as deduced from a consideration of the several circumstances noticed above:—MODE OF TREATMENT founded on this, and supported by experience.—Remarks on the particular remedies; Venesection,—leeches;—Emetics;—blistering;—Cathartics;—nauseating expectorants;—Digitalis?—Calomel and Opium;—diaphoretics;—tepid bath—inspiring the steam of hot water.—Decoct. Senekæ?—Proposal of Bronchotomy considered.

317. Variation of treatment proper if it should assume a spasmodic character, as it has been alledged sometimes do.

318. Some account of a chronic inflammation of the trachea, which takes place in adults, and appears nearly allied to Phthisis pulmonalis.

Of the Angina Parotidæa.

319. In England called the *Mumps*, in Scotland the *Branks*.

320. CHARACTER, A specific disease occurring but once during life,—affecting the parotid and submaxillary glands with considerable swelling, accompanied by pyrexia of the synocha kind (173), generally slight,—often showing a metastasis to the female mammæ, or male testes, and occasionally to the brain.

321. Is generally so slight a complaint as to require but little medical attention,—Unpleasant consequences occasionally from its metastasis in men, and enquiry whether this admits of prevention.

For *Angina maligna* see *Scarlatina anginosa*.

Of Pneumonia,

Or Acute Inflammation of the Lungs, and their investing Membrane.

322. GENERAL CHARACTER; pain rather suddenly attacking some part of the thorax internally, and increasing;—preceded, accompanied, or soon followed by pyrexia, and attended by painful respiration, and generally with cough.

323. State of the tongue, urine, &c. commonly present, and serving additionally to mark the disease.

324. Variation in the symptoms, accordingly as the inflammation affects more especially—(a) the reflected

pleura,—or (ε) the substance of the lung sand their proper covering,—shown in—the hardness or softness of the pulse,—the kind of pain,—the state of the respiration,—the patient's aspect,—and the effect of posture,—the cough being dry, or with expectoration.—Names in use designative of this difference of situation—(α) *Pleuritis vel Pleuro-peripneumonia*,—(ε) *Pneumonia vel Peripneumonia*.—These in general combined with each other, in various degrees, as well as, occasionally, with inflammation of the liver, spleen, stomach, and intestines; and if not taken into account, gives rise to considerable embarrassment, both in the diagnosis and indications of cure.—Curious fact respecting the sympathy of contiguity in pneumonic inflammation; and application of it to explain the utility of certain remedies.

325. Particular symptoms alledged to arise from the inflammation when seated in the mediastinum (*Mediastina, Vogel*),—or the diaphragm (*Paraphrenitis auctorum*). Doubts respecting some of these, founded on dissections.—Occasional change in the seat of the pain, and probably also in the inflammation.

326. PREDISPOSING CAUSES; a constitutional tendency to the complaint, especially marked by plethora, with a tense and irritable system of blood vessels, particularly of the lungs.—Certain period of life.—Male sex?—Former attacks of the same disease.—Season of the year.

327. EXCITING CAUSES; sudden or long continued refrigeration, especially if aided by moisture, and operating on the body when overheated or fatigued;—the imprudent use of spirituous liquors immediately after this (*Pleuritis vel Pneumonia vera*);—particular quality of atmosphere

sometimes epidemic; (*Febres pleuriticae*)—peculiar quality of certain febrile contagions (*Pn. catarrhalis, morbillosa, typhoidea, &c.*)—metastasis of acute Rheumatism, Gout, Erysipelas, &c. (*P. rheumatica, arthritica, erysipelatos, &c.*);—inflammatory, sub-inflammatory, or remitting, bilious, and intermitting fevers (*Synocha pleuritica; Pleuritis biliosa,—Pl. periodica*);—irritation from worms in the stomach (*Plueritis vel Pleurodyne verminosa*).

328. DIAGNOSIS.—Marks whereby to distinguish Pneumonia from spasmodic and other painful affections of the chest.—Discrimination of the disease into *simple* or *complicated*,—and into *idiopathic and primary*, or—*symptomatic and secondary*,—as drawn from the predisposing and exciting causes,—the mode of attack and progress of the disease,—the symptoms present.—Importance of determining in what degree the disease partakes of the *tonic* or *atonic* form, as greatly influencing the treatment (*P. vera et notha*):—circumstances necessary to do this.

329. Different modes in which pneumonic inflammation terminates in health, death, or another disease:—resolution,—expectoration,—adhesion;—extravasation of blood into the interstitial substance of the lungs, or profuse effusion of viscid mucus into the air cells and bronchia;—vomica;—empyema;—tubercles;—thickening and ossification of the inflamed membranes and vessels;—hydrothorax.—Signs of these respectively, as collected from observation and dissection, and illustrated by morbid preparations.

330. TREATMENT OF PNEUMONIC INFLAMMATION IN GENERAL, admits of considerable variety, according to its being—*simple* or *complicated*,—*original*, or *secondary*,—to the particular seat of the inflammation,—

and, still more, its *degree* and *kind*.—The chief indications are—1. In the beginning of the disease, to check the inflammation in its acute state, and whilst still admitting of a perfect resolution. 2. In the more advanced stage, to favour the expectoration or other evacuation that may take place, and that is found to give relief.—And 3dly, to support the strength under these,—to allay urgent symptoms,—and to guard against those bad consequences to which there appears any evident tendency.

331. Remedies suited to these respective indications; with remarks upon the propriety and extent of their use individually, as determined by a consideration of the various circumstances already noticed:—1. Venesection, —cupping,—leeches,—blisters;—cathartics;—cool air; Nitre;—Digitalis;—Infus. Rosæ.—2. Mild diaphoretics, tepid diluents;—Opiates alone, or combined with Calomel and Antimonials;—Inhaler;—gentle emetics, Squills, —Seneka,—Ammoniacum,—Vol. alk.—3. Light nutritive food,—moderate tonics,—diuretics,—setons, &c.

Of Carditis, and Pericarditis;

Or acute Inflammation of the Heart and its Membranes.

332. CHARACTER:—Along with most of the symptoms belonging to Pneumonia, there is great faintness, anxiety, and oppressive pain referred to the region of the heart, accompanied with extremely frequent, small, and often irregular pulse, together with violent palpitation and even syncope on motion.

333. Acute Carditis of rare occurrence as a primary complaint; being oftener an extension or change of pneu-

monic inflammation.—Instances of the disease illustrated by preparations.

334. Consequences of Carditis,—effusion of serum into the pericardium,—adhesion of the pericardium to the heart,—ossifications of the heart and its appendages.

335. The Treatment of Carditis should consist of the same means used in the more acute forms of pneumatic inflammation; and these employed with a promptitude, and to an extent, proportioned to the more rapid progress and greater danger of this disease.

Of Hepatitis, or Inflammation of the Liver.

336. GENERAL CHARACTER.—violent and tensive, or dull and heavy pain in the right hypochondre, increased on pressure, inspiration, or particular posture;—pain about the right clavicle and shoulder;—dyspnæa, with sense of stricture or oppression about the pericordia;—sometimes cough, generally dry;—occasionally vomiting, hiccup, and sallow or icteritious countenance:—primary or symptomatic pyrexia.

337. Division into two species—the acute (*H. membranacea*)—and the chronic (*H. parenchymatica, vel Hepatalgia apostematosa*),—or into the *tonic* and *atonic* forms:—these widely different in their respective extremes; but as variously blended, best treated of under one general head.—Circumstances under which more especially one or other form takes place:—symptoms distinguishing them, and others serving to denote the particular seat of the inflammation.

338. Progress of the disease according to its degree and kind:—Terminations, in—resolution,—in adhesion,—in suppuration, and abscess opening—externally,

—into the ducts,—into the lungs,—into the abdominal cavity:—induration or scirrhus.—Gangrene?—Signs of these terminations respectively,—and their most frequent consequences.

339. **DIAGNOSIS.** Acute hepatitis often simple, but occasionally joined with pneumonia or gastritis; and sometimes entirely mistaken and unsuccessfully treated for these.—Marks whereby they may be generally distinguished.—Frequently accompanies bilious remittents, and sometimes intermitting and contagious fevers in hot climates.—The chronic form often connected with Dysentery.—Importance of attending to these combinations, as considerably influencing the treatment.

340. **PREDISPOSING CAUSES;**—male sex;—adult period;—certain constitutional tendency, marked by excess or irregularity in the hepatic secretion, and often connected with plethoric habit, tense irritable fibre, and passionate temper:—stopping accustomed discharges, especially the hæmorrhoidal.

341. **EXCITING CAUSES;**—occasionally all those that induce general inflammatory pyrexia, as—sudden vicissitude of temperature,—cold drink,—violent bodily labour or exercise;—but more especially excess in spirituous liquors, and continued great heat of climate or season.—Mode in which these last operate;—and enquiry why Hepatitis particularly frequent on the Coromandel Coast.

342. **THE TREATMENT** of Hepatitis necessarily very different, accordingly as the disease is acute or chronic,—simple or complicated.—In the acute form, bloodletting general and topical,—blisters—cathartics,—and other antiphlogistic means—must be had recourse to in proportion to the violence of the inflammatory symptoms, the previous health and vigour of the patient, and the nature

of the exciting causes.—Why venesection less, and purging more useful here, than in pneumonic inflammation.—Why Calomel more efficacious than any other cathartic;—with directions for its management.—In the advanced stage of the acute, and universally in the chronic hepatitis, Mercury carried to sensible ptyalism, the most effectual remedy:—enquiry into its *modus operandi*; and curious observation respecting it in latent hepatic abscess.—Other remedies occasionally useful, especially in the *atonic* form;—mild diaphoretics,—tepid bath,—fomentations,—diuretics,—bitters,—alkalies,—Cicuta:—issues,—setons;—sea voyage:—Nitric Acid?—Extr. Taraxici? &c. Remarks on these.

Of Gastritis, or Inflammation of the Stomach.

343. CHARACTER; Acute pain in the region of the stomach, increased by external pressure, or by swallowing any thing that irritates by its bulk, quality, or temperature;—frequent retching, and occasionally hiccup:—violent pyrexia, with extremely quick, small, and hard pulse;—great anxiety and prostration of strength.

344. Idiopathic Gastritis rare; but many of its symptoms occasionally attend inflammation of the liver, intestines, or kidney;—and also various fevers, especially contagious ones:—examples illustrative of this in the case of the liver, &c.

345. Division of gastritis into two species, viz.—(a.) the *phlegmonous*, and—(b.) *erythematic*:—foundation of this division, and marks of each species.

346. PREDISPOSING CAUSES not clearly ascertained.

347. EXCITING CAUSES;—drinking very cold liquors when the body is greatly heated;—large doses of Nitre;—overdistension with highly stimulant or indigestible

food;—particular determination under general fever:—Metastasis of gouty, rheumatic, erysepelalous, or pemphigose inflammation;—checking certain chronic eruptions:—swallowing articles which act mechanically, chemically, or specifically, by wounding, corroding, or otherwise inflaming the coats of the stomach.—Remarks on the mode in which these causes respectively act.

348. Progress and terminations of the disease;—with the appearances on dissection: consequences which occasionally result from it when caused by certain poisons.

349. THE TREATMENT of gastritis will necessarily vary according to the exciting cause and degree of the disease, and to its being simple or complicated.—The chief indications are—1. To lessen the inflammation by venesection, —leeches, —fomentations, and blisters,—opiates by glyster, or externally?—2. To recall any external inflammation or cutaneous complaint, the disappearance of which had preceded the affection of the stomach.—3. Where offending matters swallowed are still present, to evacuate, correct, dilute, or inviscate them;—and afterwards guard against their future consequences.

350. Means directed to fulfil the *second* indication.—Individual remedies especially calculated to answer the *third*, according to the nature of the hurtful cause, e. gr. whether *mechanical*, as powdered glass, &c.—*chemical*, as corrosive Acids or Alkalies,—Arsenic,—Copper,—Hydr. Muriat. &c.—or *specific*, as certain acrid or narcotic vegetable matters.

Of Splenitis.

351. Idiopathic acute inflammation of the Spleen an extremely rare complaint:—probable cause of this.—

Symptoms characterizing it ;—Pyrexia ; pain in the seat of the spleen increased by pressure, and accompanied with tension, and heat ; without any signs of nephritis.

352. Chronic inflammation and enlargement of spleen, occasionally with abscess, not an unfrequent effect of Intermitting Fevers in certain countries.

353. The Treatment of Splenitis, whether acute or chronic, nearly that directed in the corresponding states of hepatic inflammation.—Curious operation said to be practised by the native physicians of India in cases of enlarged Spleen.

Of Nephritis, and Cystitis,

Or Inflammation of the Kidneys, and of the Bladder.

354. Acute Nephritis and Cystitis of rare occurrence as spontaneous diseases ; being usually the consequence either of irritation from certain foreign matters passing through the kidneys and bladder, or of calculous matter formed in them.—Chronic inflammation and ulceration, however, or thickening and mucous discharge of these organs, occasionally idiopathic ; but still oftener symptomatic of gout, gravel, or stone.

355. SYMPTOMS OF NEPHRITIS ;—Pain in the region of the kidney, often extending along the Ureter, and causing numbness of the thigh, with retraction and pain of the testicle on the same side :—frequent passing of urine, which is sometimes very red, at others unusually pale ;—retching ;—preceding or accompanying pyrexia.

356. PREDISPOSING CAUSE,—Constitutional irritability of the kidneys, generally connected with gouty or calculous habit.

357. EXCITING CAUSES;—Mechanical injury from blows,—strains,—violent exercise in travelling;—cold, especially with moisture, applied to the loins and belly;—certain stimulating matters swallowed, and acting specifically upon the urinary passages, as Cantharides, Turpentine, &c.—metastasis of gouty inflammation;—the lithopoietic process, or rather the calculous matter when formed, acting by its bulk or figure.

358. DIAGNOSIS;—Symptoms distinguishing Nephritis from rheumatism,—from colic,—from enteritis,—and hepatitis.

359. TREATMENT;—Venesection,—leeches,—cupping;—mild cathartics;—glysters;—antimonial diaphoretics;—warm bath,—fomentations;—Opiates;—mucilaginous diluents;—super-carbonated Soda Water?—If from gouty metastasis, then means directed to re-excite the original inflammation. SEE GOUT.—If from Calculus, the means specified under that head.

360. SYMPTOMS OF CYSTITIS.—Pyrexia followed or accompanied by pain and tension in the region of the bladder, increased by external pressure;—frequent and painful discharge of urine, or suppression of it;—tenesmus.

361. Predisposing and Exciting Causes,—in general those enumerated (356-7);—likewise injury during labour;—extension of gonorrhœal inflammation.

362. Irritation and gleeting of bladder (*Cystirrhœa, mucosa, vel Catarrhus Vesicæ*) sometimes occurs in delicate women, especially after lying in;—and chronic inflammation, with thickening of the coats, and purulent discharge by urine (*Cystalgia purulenta*) not uncommon in elderly persons, especially men.—Symptoms distinguish-

ing *idiopathic* Cystitis from the symptomatic affection attending enlarged prostate, —scirrhus of the uterus or rectum,—or stone in the bladder.

363. TREATMENT OF CYSTITIS nearly the same as directed in Nephritis.—Some remarks on Cystirrhæa, —thickening and ulceration of the bladder, and other complaints mentioned in par. 362.

364. Acute Inflammation of the Uterus (*Hysteritis, vel Metritis*),—of the Mesentery (*Mesenteritis*)—and of the Peritonæum (*Peritonitis*) almost peculiar to lying-in women:—as constituting a part of Puerperal Fever, therefore, and being intimately connected with the circumstances of pregnancy and parturition,—referred to the lectures upon that subject.

Of Enteritis,

Or Acute Inflammation of the Intestines.

365. CHARACTER,—Acute, fixed, and depressing pain, with sense of heat, in the abdomen, more especially round the umbilicus,—increased on pressure,—preceded or accompanied by pyrexia, and generally by obstinate costiveness,—and followed by vomiting, and tympanitic distension.

366. Division of enteritis as it affects the substance of the intestines (*Enteritis phlegmonodea*), or their internal villous coat (*E. erythematica*):—symptoms distinguishing these.

367. State of pulse,—heat,—tongue,—urine, &c. in the progressive stages of the disease, according to its particular species (366).

368. DIAGNOSIS.—How to be distinguished from

Colic,—and from inflammation of the other abdominal viscera.

369. Modes in which it terminates—resolution,—puriform effusion,—gangrene :—proportional frequency of these terminations according to the nature and degree of the exciting cause, and the form the disease assumes (366) :—Symptoms accompanying these terminations respectively.

370. PREDISPOSING CAUSES ; — Certain period of life ;—full living ;—plethora ;—habits of indolence ;—inactive state of liver ;—constitutional irritability of the intestines.

371. EXCITING CAUSES ;—A. Cold suddenly or long applied :—B. Substances irritating the intestines—*a.* by their bulk, shape, or indigestibility, e. gr. hard kernels, seeds, or stones of fruit,—pieces of metal,—calculous concretions,—scybala ;—or—*b.* by their chemical or specific acrimony, as concentrated acids or alkalies,—various metallic preparations, — drastic purgatives, — high seasoned food in large quantity :—C. Worms :—D. Spasm producing stricture or intro-susception :—E. strangulation of the intestine from hernia ;—F. retrocession of gout, rheumatism, erysipelas, or chronic eruptions :—G. suppression of customary evacuations, as from piles, old ulcers, issues, &c.—Remarks on these several causes, and on the form of intestinal inflammation to which more especially each gives rise.

372. TREATMENT.—The indications are—1st. To lessen or check the inflammatory state by venesection—by leeches and blisters to the abdomen,—by Digitalis?—2dly, to allay pain, vomiting and spasm, and to produce a determination to the surface of the body, as well as eventually to reverse any hurtful metastasis that had taken

place—(F. 371)—by the warm bath and fomentations,—by rubefacients,—by Opium either alone, or joined with Calomel, or certain other forms of Mercury, and occasionally with mild diaphoretics;—thereby preparing for—3dly, Rendering the intestinal canal capable of being safely and effectually cleared by suitable cathartics.—4th. Where the exciting cause consisted of hurtful ingesta, or other matters lodged in the intestines, and still continue to act,—to remove or abate their irritation,—by expelling, correcting, diluting, or inviscating them.

373. Observations on the individual means best adapted to fulfil these indications; and the extent in which they are respectively to be employed, according to the greater or less degree of *atonic* character which the disease bears,—to the particular circumstances of the case,—the causes inducing it, &c.—Management necessary during the convalescent state, to secure a perfect recovery;—and afterwards, to guard against a future recurrence of the disorder.

374. Remarks on certain remedies proposed in Enteritis;—Tobacco glyster;—Quicksilver;—Mechanical distension of the intestines by injections, &c.

Of Rheumatism.

375. A denomination of disease including affections which, though connected with, and often changing into each other, yet differ considerably both in their respective assemblage of symptoms, and method of cure.

376. Imperfectly described by Hippocrates, &c. under the ambiguous term of *αρθρις*:—first accurately discriminated by Ballonius, and by him called *rheumatismus*;—original meaning of the name.

377. Most commonly distinguished into *acute*—and *chronic*:—often denominated also from the part affected,

as *Odontalgia*, — *Pleurodyne*, — *Lumbago*, — *Ischias*. — Insufficiency of these distinctions shewn. — Another proposed, accordingly as the inflammation is — a. *tonic*, — b. *atonic*, or — c. *absent*; — a. *rheumatitis* (acute rheumatism of authors) — b. *rheumatagra* (acuto-chronic rheumatism, — Scorbutic rheumatism of Sydenham, — Rheumatic Gout) — c. *rheumatalgia* (chronic rheumatism of authors, — *Arthrodynia*, Cull.)

378. CHARACTER OF RHEUMATITIS — Obtuse tensile pain, swelling, and redness, attacking the larger joints more especially, — preceded or soon followed by Synocha fever (173), — generally accompanied by profuse partial sweats, — and often shifting its situation, with fresh exacerbations of fever: — lasting from two to several weeks, and then either going off entirely without desquamation, or changing to

379. RHEUMATAGRA; in which the joints last occupied by Rheumatitis, especially the ancles and knees, remain swelled, stiff, and painful, sometimes with *Œdema*, for many weeks, or even months, — the pain generally aggravated at night, or by external heat, — but attended with little or no pyrexia, — and not followed by any chalky concretions.

380. RHEUMATALGIA. Often after rheumatitis or rheumatagra, but frequently also without any previous inflammation or swelling, certain joints or muscles become affected with pain and stiffness, felt especially on motion, — often accompanied by spontaneous coldness and even paralytic torpor, — relieved by external warmth, — and much influenced by atmospheric changes.

381. PREDISPOSING CAUSES OF RHEUMATITIS AND RHEUMATAGRA, (377-8) — Irritable and plethoric, or sanguineous habit; — vigorous period of life; — sex? —

indolence,—changeable climate and season;—(b.) preceding attacks of rheumatitis;—scorbutic (?) habit;—mercurial irritability.

382. EXCITING CAUSES;—Cold suddenly applied, especially when the body is overheated or fatigued;—certain unknown changes of atmosphere;—general febrile commotion however produced.—Syphilitic taint?

383. DIAGNOSIS, sometimes difficult between rheumatism and gout, not only from their general resemblance, but from their being frequently combined:—circumstances generally distinguishing them, —in the patient's age, —sex, —condition and mode of life, —hereditary tendency, —exciting cause, —mode of attack, —symptoms during the progress—and, termination of the complaint.—Rheumatic pains, how distinguished from syphilitic ones.—General character of rheumatic inflammation, and an examination of the humoral doctrine respecting it.

384. PROGNOSIS—in general favourable; but sometimes in rheumatitis, metastasis suddenly takes place to the brain, chest, or stomach, and proves quickly fatal:—instances of each of these.—Tendency to relapse.—Symptoms denoting a favourable termination.—Rheumatagra generally tedious and difficult of cure; and in scrophulous or rachitic habits, sometimes ends in a state of the joints very analogous to white swelling.

385. TREATMENT OF RHEUMATITIS;—Venesection; caution against the Boerhavian notion respecting it.—Leeches.—Blisters?—Purging;—different modes of proper, according to the period of the complaint, &c.—Diluents—Sudorifics?—rules for their management.—Nitre?—Digitalis.

386. TREATMENT OF RHEUMATAGRA; — Mild

diaphoretics ;—tepid bath ;—local bleeding ;—blisters ;—tonic bitters as Cinchona,—Mist. Myrrhæ e Ferro, &c. ;—diffusive stimulants,—*Dec. Dulcamaræ* ?—*Pil. Calomel: cum Antimonio*.—Whey diet ;—Sudatorium ;—Douche ;—Electricity ? or Galvanic aura.—Salt brine.

387. TREATMENT OF RHEUMATALGIA ;—Stimulant diaphoretics, e. gr. Guaiacum, —Ammonia ;—Sim. Sinapeos, —Infus. Raph. rust ;—*Dec. Mezerei Rhododendron Chrysanthemum* ;—*Pil. Plummeri* ;—Sulphur ;—Ol. Terebinth,—Ol. Jecoris Asellii, &c.—*External remedies* :—Tepid and vapour bath ;—various epispastic, rubefacient, and stimulant plasters, liniments, and embrocations ; Cabbage leaves.—Friction, Champooing ;—Electricity, —Galvanic aura : —actual cauterly,—Moxa.

388. Of the choice and management of individual remedies, according to the circumstances of the case ;—and account of some boasted empirical articles, e. gr. Essence of Mustard,—Guest's embrocation, &c.

389. Observations on the most effectual means of guarding against rheumatic affections, by proper clothing,—exercise,—friction,—cold bath, &c.

Of the Gout.

390. Gout a general term, including, like Rheumatism, a number of morbid affections differing greatly in their symptoms, but all arising from the same primary cause.—The *aphuris* of the ancients ;—the *Podagra* of Boerhaave and Cullen :—*Fr. La Goutte* :—origin and meaning of these names.

391. Sometimes denominated from the part it affects, —as *podagra*,—*gonagra*,—*chiragra*,—&c. ;—but the di-

vision into *regular* and *irregular*, or rather into *tonic* and *atonic*, the only one practically useful.

392. CHARACTER OF TONIC OR REGULAR GOUT ; —Pain, swelling, and bright redness suddenly affecting the joints of the feet or hands, and especially the ball of the great toe, —generally preceded by some unusual affection of the stomach ;—followed by symptomatic synocha,—and going off by gentle universal perspiration, with sediment in the urine, and itching and desquamation of the part.

393. Sometimes, instead of the extremities, the stomach, brain, lungs, intestines, kidneys, or bladder, become affected with symptoms of inflammation, which give way upon the inflammation appearing in the extremities (*misplaced gout*) ;—or the pain, swelling, and redness which had begun in the extremities, suddenly go off, and colic, delirium, &c. take place. (*retrocedent gout.*) This more especially the case, where the regular course of the paroxysm is improperly checked, or where slight and fugitive pain, &c. with dyspepsia, and various anomalous symptoms, mark the *atonic* form of the disease.

394. PREDISPOSING CAUSES ;—Original constitution, often hereditary ;—middle and advanced age ;—virility ;—full living, —neglect of exercise ;—weakness of stomach ;—fermented liquors of the acescent kind ;—the application of lead.

395. EXCITING CAUSES ; —Occasional excess in wine or spirits ;—sudden vicissitude of temperature, from variable climate, season, or exposure ;—sprains or other injuries ;—Passions of the mind, —anxiety, —intense application to study or business ;—excess in venery, &c.

396. DIAGNOSIS.—Marks generally distinguishing

Gout from Rheumatism (382);—the two sometimes combined, and the symptoms of *atonic* gout extremely numerous and proteiform,—often appearing as dyspepsia, hysteria, hypochondriasis, asthma, palpitation, syncope, vertigo, apoplexy, paralysis, &c. &c. according to the original or acquired tendency to those diseases;—and thereby making the discrimination between it and several other disorders, occasionally very difficult.

397. Consideration of the question whether gout a disease of the *solids* or of the *fluids*,—with an account of the subordinate theories:—arguments for a *morbific matter*,—others for the nervous pathology;—difficulties attending them singly,—and conclusion that Gout is a compound disease.—Conjectures respecting the nature of gouty inflammation;—its analogy to phosphoric combustion shown;—and application of this to explain many difficulties with respect to the causes, symptoms, and cure of the complaint in different cases.

398. Discussion, whether regular fits of Gout remove or prevent other complaints, or rather—other and anomalous forms of the same disease:—arguments in the affirmative, illustrated by striking cases;—and strictures on the opinion of Dr. Heberden.

399. PROGNOSIS.—To be drawn from the circumstances of constitution,—habit of body,—age,—condition and mode of life,—particular form of the disease,—its continuance and effects,—retrocedent tendency, &c.

400. The TREATMENT of Gout necessarily various, accordingly as the disease is *tonic* or *atonic*,—misplaced,—retrocedent,—hereditary or acquired;—but chiefly resolved into that required during the fit,—and that proper during the interval.—The principal indications are, 1st—

In the paroxysm,—to moderate the violence of the inflammatory symptoms,—and conduct the disease with safety to its natural termination;—2dly, when retrocedent or misplaced, to recal it to its proper seat in the extremities;—3dly, in the interval, to remove the effects it has produced, and obviate its recurrence, by diet and regimen adapted to the form of the complaint and circumstances of the person.

401. Means suited to the 1st indication,—Venesection?—Emetics?—brisk cathartics?—gentle laxatives;—diluent, and mild diaphoretics:—regulation of temperature;—application of cold water,—the circumstances and management necessary to render it safe; and cases of its fatal effects related.—Remarks on the opposite plan of—vapour bath,—oiled silk,—fleecy hosiery, &c.—External applications,—Soap plaster or Cerate,—Oil of Camphor, &c.—Opiates;—tonics.

402. Means recommended for the 2d indication;—local evacuations from the affected parts;—blisters, and rubefacients to the extremities;—Opiates, and diffusive stimulants, as Vol. alkali—Camphor,—Musk,—Wine,—Spirits, &c. very hot Pediluvium alone, or with oxygenated Muriatic Acid.—Phosphorus?—Doubts respecting the propriety of some of these in certain cases of retrocedent gout, and success of an opposite plan illustrated by cases.

403. Means suited to the 3d indication;—Entire Abstinence from, or very moderate use of—fermented and spirituous liquors,—animal food,—excessive study, and sexual pleasures:—Regularity in exercise and sleep;—friction;—Cold bath;—employment of bitters, and other tonic medicines;—antacids—warm laxatives.

404. Account of the chemical composition of chalk-stones, and the methods that have been proposed for their removal.

405. Remarks on particular remedies, and modes of treatment:—Guaiacum;—Semen Sinapeos;—Ginger;—Cajeput Oil;—Sulphur;—Bath and Buxton water;—Cicuta;—Dulcamara;—Le Fevre's specific;—the Portland Powder;—the bad consequences observed to follow this powder, accounted for.—Buzaglio's method;—Mr. Welles's remedy.

Of Phthisis Pulmonalis,

Or Consumption of the Lungs.

406. Derivation and meaning of the name.

407. CHARACTER;—Cough, —hectic fever,—and puriform (264,) expectoration, —accompanied with emaciation and debility,—and succeeded by colliquative sweats, often alternating with diarrhæa.

408. Symptoms very various both in number and degree, in different cases—sometimes from obvious causes, often from unassignable ones;—and hence dispute whether the pulmonary affection the primary and essential cause,—or whether merely an accompaniment of the general disease. Consideration of this point.

409. The symptoms that more commonly occur, are—Cough, either frequent, and teasing, or occasional and severe;—sometimes dry at first, oftener with expectoration of tough phlegm, blackish mucus, or of puriform matter, sometimes streaked with blood:—dyspnœa;—dull and oppressive, or sharp and shooting pain in the chest,—but sometimes neither:—Tongue generally foul,—often morbidly clean and red,—occasionally quite natural.—Skin in general dry and hot, but especially the

palms of the hands, and soles of the feet,—with circumscribed flush on the cheeks;—often, transient chills,—more commonly, a regular febrile paroxysm morning and evening, with nocturnal sweats. (*Hætic Fever*).—Mind little impaired; sometimes more acute — and generally confident of recovery:—but decay of the bodily functions shown by,—gradual loss of flesh and strength, pearly whiteness of eye,—incurvation of the nails, and sometimes loss of the hair.—Appetite variable, — generally impaired, but occasionally craving, and sometimes good to the last.—Vomiting after eating.—Colliquative diarrhæa, alternating with the night sweats.—Œdema of the feet and legs, with apthæ of the fauces, and occasional delirium, often precede death.

410. PREDISPOSING CAUSES;—Original and often hereditary tendency,—marked by irritability and weakness of the vascular system, especially of the lungs,—and by frequent catarrh or hæmoptoe.—Scrophulous habit, laying the foundation of tubercles.—Narrow or deformed chest.—Earlier period of adult age.—Variable climate; —local quality of the air.—Why so frequent in England;—and why certain trades particularly free from phthisis.

411. Observations on certain marks considered as denoting the phthisical tendency,—Sanguineous temperament,—fair soft skin and hair,—light eyes;—tall and thin person,—long slender neck,—projecting shoulders; —unusually white, and sound teeth.—Opposite description of persons in whom also the disease occurs;—middle or low stature—opaque skin,—dark hair and eyes,—dilated pupils,—tumid upper lip; —truncated fingers;—Forms which it respectively assumes in each of these.

412. EXCITING CAUSES;—Pneumonia,—Catarrh,—

Measles,—Small Pox,—Whooping Cough,—Various Fevers.—Spontaneous Metastasis, or repressing of certain eruptions;—Sudden variation of temperature; neglect of covering the breast and neck;—certain unknown condition of atmosphere.—Frequent over-exertion in speaking, singing, or blowing musical instruments.—Compressing the chest by tight bands, stooping posture, &c.—Inspiring certain kinds of dust or vapour.—Substances accidentally lodged in the trachea.—Inhaling the breath of persons in the advanced stage of phthisis?—Hæmoptoe:—mechanical injury of the lungs, from blows, &c.—Formation of calculous matter in the lungs.—Communication of hepatic abscess (338).—Syphilitic taint?—Mercurial irritation.—Febrile irritation from Worms.

413. Appearances on dissection, illustrated by preparations, and connected with the previous symptoms,—dividing phthisis into *three* principal species, viz.—*α.* the *catarrhal*.—*β.* the *ulcerative*,—*γ.* the *tubercular*;—and explaining many particulars observed in the rise and progress of the disease,—the effect of remedies,—and the final result.

414. Enquiry into the nature of tubercles; and account of the different opinions entertained respecting them.

415. Description of hectic fever, and discussion of the several theories offered to explain it;—debility,—defective assimilation of chyle;—suppurative inflammation;—absorption of pus;—abstraction of nourishment;—general state of the system.—Tests proposed to determine the purulent nature of the expectoration:—inutility of them shown, and obvious characteristic marks pointed out

416. DIAGNOSIS.—Symptoms distinguishing idiopathic

Phthisis from Catarrh, — Vomica, — Empyema, — Chronic Hepatitis, &c. :—these, however, often fallacious, and why.

417. PROGNOSIS;—to be drawn from—the mode in which the disease arose,—its duration,—and its slow or rapid, its interrupted or uniform progress,—the number and degree of the symptoms present,—and the effects already produced. But slightest symptoms alarming, where hereditary tendency traceable.—Has been sometimes removed by supervening insanity, or typhous fever; and is often *suspended* by pregnancy :—instances of these.

418. THE TREATMENT OF PHTHISIS will depend much upon the nature of the predisposing and exciting causes, and the particular form which the disease puts on (413); — but especially upon its being — *a.* accompanied with considerable inflammatory irritation,—or—*b.* marked by great loss of *power* (137. 250-2).—The chief indications, therefore, are—*a.* to diminish inflammatory action,—*b.* to lessen irritability both local and general :—*c.* at the same time, to support or increase *power*, as far as is consistent with the two preceding indications: and — *d.* Throughout the progress of the treatment,—to check all urgent symptoms,—and to obviate as far as practicable, such of the exciting causes as may still continue to act.

419. Individual means employed to fulfil the several indications :—*a.* Occasional small bleedings?—cupping, —leeches;—dry cupping;—Blisters;—issues;—setons. Refrigerants—Nitre?—Crystals of Tartar;—Acids;—Infus. Rosæ cum Natro Vitriolato. — *b.* Digitalis:—Cerussa Acetata?—Opiates;—what kinds best,—most effectual modes of administering them,—Cicuta.—Hyoscyamus :—Sarsaparilla.—Breathing different kinds of

factitious or modified air.—Inhaling vapour of warm water, — Æther, &c. — *c.* Mild tonic bitters; — Myrrh; — Lichen Islandicus; — Lime Water and Milk, &c.—Light and nourishing diet, adapted to the patient's digestive powers; but, in general, consisting chiefly of ripe saccharine or subacid fruits, and other vegetable matters, joined with Milk:—varieties of Milk, and its preparations:—Ass's milk—Cow's milk—butter-milk; —Goat's-milk whey; —*Koumiss*.—Bristol Water?

420. Modifications of treatment especially necessary under particular forms of the disease.—Remarks on certain remedies occasionally employed; and enquiry into the nature of the case, and their probable *modus operandi*, when beneficial; —Mercury; — Petroleum and its Oil; —Bals. Copaibæ, —Mecca Balsam; — Tar Water; — inhaling resinous fumes; —Cinchona; —Emetics; —Sulphur, —Kali Sulphuratum, &c.

421. Means proper for checking colliquative sweats and diarrhœa;—for correcting the fœtor of the expectoration; &c.

422. Remarks—On the choice of climate and situation;—On various modes of exercise;—riding on horse-back?—easy carriage;—sailing;—swinging;—rotatory machine; —On the most proper cloathing;—regulation of sleep;—amusements, &c.

Of Measles.

423. SYNONYMA,—*Morbilli; Rubcola.*

424. CHARACTER;—A contagious disease, occurring but once during life,—ushered in by sneezing,—swelling, redness, and watering of the eyes,—flushed and turgid countenance, —drowsiness, —and frequent hoarse dry

cough,—accompanied with fever, that is, throughout of the synocha kind (173):—on the fourth or fifth day, the skin—more especially of the face, neck, breast, and trunk, appears thickly beset with small red spots, scarcely elevated, running into clusters, and at the end of three days, going off in small branny scales,—often leaving behind a troublesome diarrhæa,—or considerable pneumonic affection, cough, and symptomatic fever.

425. PREDISPOSING CAUSES,—a susceptibility to the specific contagion, almost universal under puberty, but gradually diminishing afterwards; and perhaps always greatest in sanguineous, irritable, and plethoric habits.—Spring and Summer season.

426. EXCITING CAUSE;—the application of the specific contagion, most probably in the state of vapour.

427. DIAGNOSIS.—Distinguished from Catarrh by the eruption;—from Scarlatina by the character of the efflorescence,—the state of the fauces,—the prevailing epidemic, or tracing the contagion,—the form of the fever, &c.

428. PROGNOSIS,—To be drawn from—the general event of the disease;—the violence of the febrile state;—but especially, from the degree of the pneumonic symptoms,—with the previous delicacy of the patient, and tendency to pulmonary complaints.

429. Account of the attempts to produce a milder disease by inoculation.

430. THE TREATMENT of Measles must be regulated by—the inflammatory form of the disease,—its specific nature as to duration,—and the particular urgent symptoms which arise in certain stages of it.—The chief indications are—*a.* to moderate the violence of the

general febrile state ;— ϵ . to prevent or check against any unusual determination to the lungs, intestines, or brain, in the progress of the disease.— γ . to guard against the bad consequences which often result from Measles.—Means of fulfilling— α . Venesection ?—gentle laxatives ; moderately cool air ;—vegetable diet ;—cooling sub-acid diluents :— ϵ . General bloodletting ;—leeches to the chest, abdomen, or head ;—blisters to the same parts ;—mild antimonial diaphoretics :— γ . Opiates ;—Digitalis ;—Perpetual blisters, issues, or setons ;—mild atmosphere, —Ass's milk, &c.

431. Question concerning the propriety of *early general* bloodletting.—Remarks on the hazard of treating the diarrhœa by astringents and opiates ;—and a different mode, founded on the nature of the disease, pointed out.—Bad consequences resulting from the sudden or long continued application of cold ;—and means of removing them.

432. Account of the typhous or putrid type which Measles have been sometimes observed to assume ;—and the treatment proper under such circumstances.

Of Small Pox.

433. SYN. *Variola* of authors.—Fr. *La petite Verole*.

434. CHARACTER. A highly contagious eruptive fever, —occurring but once during life ;—commencing with languor, —drowsiness, —pyrexia, —pain of the head and loins, —vomiting, —and soreness of the stomach on pressure :—on the *third* day generally, there appear, —first on the face, and successively on the inferior parts until the *fifth*—small red spots, gradually rising into pimples, which fill with *puriform* matter, afterwards dry into hard scabs,

and, on falling off, frequently leave pits or marks in the skin.

435. Division of Small Pox into the *tonic* and *atonic* forms, or into—A. the *Distinct*—having few, detached, circular, and turgid pustules, with rose-coloured bases, accompanied by fever of the synocha type, abating considerably on the eruption taking place, and going off almost entirely on its completion:—And into—B. the *Confluent*—shewn by—more violent and typhoid pyrexia, generally with coma and delirium;—followed by an earlier eruption (often with erysipelatose appearance) of numerous, small, flaccid pustules,—running together, and containing a thin serous fluid, or brownish ichor;—the fever abating but little on the commencement, and often increasing considerably on the termination of the eruption;—and attended with more severe ptyalism and affection of the fauces,—or instead of them, in infants, with diarrhœa.

436. Other denominations of—*mild and benign*,—or *putrid and malignant*,—accordingly as the symptoms are moderate,—or as they are attended with hæmorrhage,—petechiæ,—bloody urine,—and other marks of a highly *atonic* and *septic* state.—Occasional varieties—e. gr. crystalline pock. (*Variola crystallina*, Mead and Sauvages.)—warty (*V. verrucosa*, M. and S.)—bloody (*V. sanguinea*, Mead.), &c.

437. Circumstances occurring at certain stages or periods of the disease, e. g.—in adults, tendency to sweating during the primary fever, especially at the time of eruption;—in infants, epileptic fits about the same period;—*Fifth day*, pustules begin to vesicate.—On the *eighth*, if eruption numerous,—swelling of the face,

closing of the eyes, inflammation of the fauces, and discharge of viscid saliva.—*Eleventh day*—pustules at their height;—swelling of the face, affection of the fauces, and ptyalism subside,—and are followed by tumefaction of the hands and feet, which goes off as the pustules mature.—Secondary fever—coming on when suppurative process completed.

438. PREDISPOSING CAUSES;—A *seminium*, or susceptibility of being affected by the specific Exciting Cause, (439) which few are entirely without,—and though varying greatly in individuals, yet most considerable in early life, and probably increased by whatever excites inflammatory diathesis, as—full living,—particular epidemic constitution of the air,—certain seasons, &c.

439. EXCITING CAUSE,—The peculiar and specific virus multiplied during the disease, and applied to a susceptible person, either in a palpable form, or in a state of vapour:—proofs of this.

440. Advantages of *inoculated* over *casual* Small Pox.—Causes assigned for this,—choice of patient's age, and state of health;—season of the year;—preparation;—early management of the disease;—quality of the matter used?—quantity introduced?—Remarks on each of these heads;—with precautions necessary to the success of the operation, and security of the patient.

441. Phenomena of the disease explained on the commonly received humoral pathology.—Objections to this pointed out;—and a different explanation offered.

442. DIAGNOSIS.—Difficulty sometimes of distinguishing Small Pox from other febrile diseases, in the early stage of the disease;—circumstances requiring attention for this purpose, e. gr. prevailing epidemic,—as—

certained exposure,—probable communication, &c.—Occasional concurrence of Small Pox and Measles: consequences of this.—Marks whereby to distinguish Small Pox from Chicken Pox (449).

443. PROGNOSIS.—The disease generally most severe in adults,—in plethoric, irritable persons,—and in scrofulous habits:—probable causes of this.—The danger usually in proportion to—the quantity of eruption,—its confluence,—and, to the degree and kind of pyrexia which attends (B. 435).—Symptoms that forebode a confluent eruption.—General bad signs;—fever continuing high after eruption complete, especially with delirium, coma, &c.—pustules ceasing to fill, or flattening;—their having a pale or livid disc;—intermediate erysipelas, or petechiæ:—sudden subsiding of the ptyalism and swelling of the face, without consequent tumefaction of the hands and feet;—hæmorrhage from the nose, intestines, &c.—Danger from subsequent complaints.

444. THE TREATMENT OF SMALL POX necessarily very different, not only from the general *tonic* or *atonic* form it assumes,—but from the changes that take place in the successive stages of—primary fever,—eruption,—maturation,—and secondary fever;—and the urgency of particular symptoms in individual cases.—The general indications, however, are—A. In the *tonic* form, to moderate the violence of inflammatory state by—Venesection;—purging;—vomiting;—antimonials;—application of cold air,—cold affusion;—vegetable diet;—cooling subacid drink;—Nitre? &c.—B. In the *atonic* form, to remove irritation from the primæ viæ by gently emptying the stomach and intestines;—and afterwards to support the *power* of the system, and prevent or correct

the septic tendency,—by the use of Cinchona, Angustura, &c.—vegetable and mineral acids;—Wine;—Camphor;—Opiates;—warm diaphoretics;—fomentations;—blisters;—brisk fermenting liquors;—Carbonic Acid glysters; &c. &c.

445. Management necessary under urgent symptoms—e. gr. when convulsions occur;—when the eruption does not appear;—when the pustules flatten;—when the affection of the throat, and the difficulty of swallowing and breathing are very great;—when the patient is sleepless, or troubled with cough;—when the secondary fever takes place.

446. Of the means recommended for preserving the eyes from injury, and lessening or preventing the deformity of pits, seams, &c.

447. Diet and regimen proper after Small Pox, to guard against the consequences that often follow.

Of the Chicken Pox.

448. SYNONYMA.—*Varicella*, Cull.—*Variolæ Pu-sillæ*, Heberden:—bastard, Chicken, or Swine Pox.

449. CHARACTER;—A specifically contagious eruptive disease, occurring but once during life, and communicable by inoculation:—febricula of the synocha kind, followed by scattered pustules like Small Pox, which vesicate at top, then dry into crusts without suppurating, and rarely leave any marks behind.

450. This disease so slight in general, as not to require medical treatment; and only demanding particular attention from its resemblance to Small Pox, whereby it has often misled into a false security, from the belief of a

person having had that disorder in a mild form, either casually, or by inoculation.

Of the Vacciola, or Cow-Pock.

451. SYN. *Cow-Pock*, Gloucestershire;—*Pap-Pock*, Norfolk;—*Shinagh*, Ireland;—*Kine-Pock*, America;—Vaccine disease;—*Vacciola*.

452. CHARACTER;—A specific, febrile (?) disease, —occurring but once during life,—communicable with certainty only by inoculation with the peculiar *lymph*, which produces a single, flattish, circular, spongy pustule, of a pale bluish-white colour,—gradually spreading for some days, and becoming surrounded with a red areola;—the centre first, and progressively the whole pustule, changing to a dark coloured hard eschar, that dries into a concave shining scab, and on falling off leaves a slight mark upon the skin.

453. Historical account of the disease;—and Dr. Jenner's claim to the invaluable discovery of its being *A certain, easy, and universally practicable preventative of Small Pox*, vindicated.—Question respecting the original source of *Vacciola*, being *equine* or *vaccine*, discussed;—and the improbability of the former opinion shewn, both from analogy, and the result of numerous experiments.

454. Comparison of Small Pox with *Vacciola*, in the severity of the two diseases,—and the consequences resulting from them, as introducing new or bringing forth latent disorders.—Comparative rapidity of progress in the action of variolous and vacciolous virus; and practical deduction from thence.—Possibility of accidental commixture in the infection, or casual concurrence of

the two diseases, illustrated by cases; and explaining the discordant opinions at first entertained respecting the phenomena proper to Vacciola.—Remarks on the *Spurious Pustule*,—its character,—the mode in which it is produced, — and the mischief which may eventually ensue from it.—Source of the doubts as to the future security against Small Pox by vaccination; and circumstances which, if duly adverted to, will tend to resolve this difficulty.—Proposed test of constitutional affection.

455. Cautions necessary to ensure the success of inoculation, with respect to—the date and condition of the pustule from which the matter is taken,—the mode of preserving the infection, — the state of the patient's health,—the method of inserting the matter, &c.

456. Account of the appearances which the inoculated part occasionally assumes,—the alarm which these at first created, and the active steps taken in consequence;—together with the simple treatment alone required for their removal.

Of Erysipelas.

457. SYN. *Ερύθημα*, Hipp. — *Ignis sacer*; — *St. Anthony's Fire*; — *the Rose*; — *Shingles*.

458. CHARACTER:—A shining redness of the skin, of a florid, yellowish, or crimson hue,—becoming white on pressure, but returning immediately after;—attended with burning pain;—extending or changing place irregularly, and often occupying a large surface;—going into numerous watery pimples or vesicles, which oftenest terminate in resolution and meally desquamation, more rarely in suppuration, and not unfrequently in

gangrene. The attack is usually preceded, accompanied, or followed, by Synochus pyrexia, and this commonly attended with drowsiness, and frequently with delirium.

459. Erysipelas differently denominated as affecting particular parts, e. gr. the face and head (*Sideratio*),—the trunk of the body (*Zoster*, *Zona*, *Shingles*)—the extremities (*Rosa*, *Sennert*).—It occasionally extends to, or attacks, the brain, fauces, œsophagus, or intestines,—producing symptoms of phrenitis, coma, &c.—or of angina (*A. erysipelacea*),—of gastritis (*G. erythematica*—) or of Enteritis (*E. erythematica*—).

460. Distinguished also as being—*a.* acute, or—*b.* chronic ;—*c.* superficial and spreading (*Erys. phlyctenodes* Cul.), or—*d.* more deep seated and fixed (*E. phlegmonodes*, Cul.—*Anthrax* ?) ;—as—*e.* primary, or *f.* symptomatic ;—as *g.* merely topical, or *h.* attended with its peculiar fever, (*Febris erysipelatosæ*, Sydenh.) or—*i.* supervening upon fever of any other kind.—Of a species of Erysipelas attacking the abdomen of new-born children.

461. Essential Character of erysipelatos inflammation contrasted with that of the simply phlegmonous, in—its appearance,—the parts it attacks,—its migratory progress,—metastatic tendency,—and most frequent terminations.—Occasional mixture of the two (*b.* 460) ;—and important distinction of Erysipelas, as partaking more or less of the *atonic* form, and as being attended by, or free from, a corresponding pyrexia.—Humoral pathology of the disease discussed ; and inquiry how far the inflammation may arise from a combination of principles analogous to the process of combustion.

462. PREDISPOSING CAUSES ;—Peculiarity of constitution or habit,—depending chiefly perhaps on certain

original structure or acquired condition of skin;—but often evidently associated with irritability both of body and mind, —with gross habit, —indolence, —and full living, advanced age, and habitual excess in spiritous liquors; with particular state of the hepatic function. —Autumnal and Summer season, —and hydropic diathesis. —Preceding attacks of the same disease.

463. EXCITING CAUSES. —Insolation, or exposure to the scorching rays of the sun, especially under violent exercise; — occasional excess in spiritous or acescent fermented liquors; —certain articles of food and drink particularly affecting individuals; —Mercurial irritation; —various acrid applications, e. gr. Cantharides, Mustard, Ammonia, Euphorbium, &c. —stings or bites of venomous insects; —puncture of leech in some persons; —burns, and scalds; —contused or lacerated wounds, especially in tendinous, ligamentous, and membranous parts; —fits of anger? —sudden refrigeration when overheated; —stopping customary discharges from issues, &c. or repressing chronic eruptions: —Epidemic influence of atmosphere: —peculiar contagion? —Remarks on these.

464. DIAGNOSIS. —Circumstances distinguishing Erysipelas from other cutaneous inflammations.

465. PROGNOSIS. —To be drawn from a collective view of the patient's age, previous health, and mode of living, &c. the nature and degree of the exciting cause; —the part affected; —the disease being merely topical, or —accompanied with inflammatory or typhoid fever, delirium, coma, &c. —its tendency to sudden metastasis, and its common disposition to gangrene.

466. TREATMENT necessarily varies in several respects according to the circumstances of the case; but

chiefly turns upon the more or less atonic type of the disease, both locally and generally. The principal indications then are

A. To lessen inflammatory action, whether local or universal, by the antiphlogistic plan, carried as far as the violence of the symptoms, and the strength of the patient may require, and as the acknowledged atonic character of the disease in general will safely admit;—by venesection?—leeches;—purging;—what cathartics most proper:—by nitre?—cooling diluents;—mild Antimonial diaphoretics.

B. To support *power*, and thereby to prevent any rapid sinking or sudden metastasis from taking place, and to obviate their effects when they have occurred;—by Cinchona or other tonic bitters, either alone or joined with acids or alkalies;—by wine;—by the occasional use of certain purgatives;—by blisters,—stimulant fomentations,—warm diaphoretics, e. gr. Ammonia, Serpentaria, Confect. Opiata, &c. —cautions respecting Opiates under certain circumstances.

C. To diminish local irritation by applications to the inflamed part.—Remarks on the different and dissimilar articles recommended for this purpose; and on the circumstances to which they may be respectively adapted:—Aq. Litharg. Acet. comp.—Spt. Vini;—simple water;—Aq. Mephitica alcalina?—Liniment. Calcis;—Why oily or greasy applications generally aggravate the inflammation:—Simple dry warmth:—Pipe clay;—Starch, &c.

467. Remarks on the different treatment necessary in country places and in large manufacturing towns;—

in different seasons; — in sporadic and in epidemic erysipelas.

468. Is PEMPHIGUS allied to Erysipelas?—Circumstances in which they agree;—others in which they differ. —General conclusion, with some particulars respecting Pemphigus not noticed by writers,

*Scarlatina Anginosa,
Or Scarlet Fever, with Sore Throat.*

469. GENERAL CHARACTER.—A specifically contagious, and generally epidemic disease, occurring but once during life;—commonly attacking between ab lactation and puberty;—beginning with sudden prostration of strength, lassitude, and frequent chills, followed by continued, intense, and pungent heat of skin,—very quick small pulse,—sometimes vomiting,—generally head ach,—great restlessness, anxiety, and tendency to, or actual delirium;—the eyes are humid and red,—the countenance flushed, and face swelled, especially about the nostrils, lips, and lower jaw,—with painful stiffness and fullness extending round the throat and neck:—the breath is unusually hot;—the respiration frequent, often difficult;—the voice guttural, and deglutition painful:—the internal fauces on examination appear very red, tumefied, and covered with whitish or ash-coloured sloughs, which occasionally degenerate into deep gangrenous ulcers, with discharge of fetid and corrosive ichor or sanies from the nose and mouth, accompanied with enlargement and frequent suppuration of the parotid and submaxillary glands;—otorrhœa, and temporary, or permanent deafness. Between the second and fourth day inclusively, the skin becomes more or

less uniformly covered with a bright scarlet efflorescence, scarcely eminent,—changing after a few days to a dusky brown colour, with subsequent disquamation of the cuticle.—The patient, when convalescent, often suddenly attacked with dropsical swellings.

470. Variations in the state of the skin, tongue, urine, and bowels, in the different stages or forms of the disease.—Particular symptoms occasionally taking place in individuals, from idiosyncrasy, or accidental co-operation of other morbid causes;—and unnecessary multiplication of species thence made by authors.

471. Historical sketch of the disease as described by eminent writers, from an early period to the present time; with its variations at different times, and the probable causes of these;—tending to reconcile the dissimilar accounts given of it, particularly by Sydenham and Morton, and determine the identity of *Scarlatina simplex*, *Scarlatina anginosa*, and *Angina maligna*.

472. Question of its specifically contagious nature, and its occurrence but once during life discussed;—with the sentiments of Drs. Withering, Currie, &c. upon these points; and importance of this question in respect to the hazard of individual exposure, and the measures required for general security.

473. CAUSES. *Predisposing*;—a susceptibility to the peculiar contagion, which perhaps most adults possess in greater or less degree, but diminishing rapidly after puberty, and becoming nearly extinct in middle age.—Marks of constitution and habit which seem to dispose to aggravated degrees or particular forms of the disease.—Seasons, epidemic influences, and other intrinsic causes, shewing similar tendency. — *Exciting cause*,—

the specific contagion generated during the febrile state of the disease. Mode in which this has been supposed to act ; and efficacy of certain means of cure deduced from thence.

474. DIAGNOSIS. Symptoms distinguishing the varieties of Scarlatina from Measles,—from the Purpura,—Erysipelas,—Urticaria,—Apthous Angina, &c.

475. PROGNOSIS.—To be drawn, on the one hand, from the violence of the febrile commotion,—on the other, from the degree of the anginous affection,—and on both, from the general *tonic* or *atonic* form which the disease puts on ;—but this greatly assisted by a consideration of the patient's age, constitution, and habit of body ;—together with the general event of the reigning epidemic,—the period of the disorder,—and the effect of the treatment already employed :—and lastly, the chance of other diseases to which it frequently gives rise.

476. TREATMENT. Account of the opposite extremes inculcated from preconceived theory, and obstinately pursued by their respective abettors ; and comparison of their usual results, with that of the varied plan adapted to the nature, duration, and general tendency of the disease, and the predominant type it assumes in the individual case ; illustrated by proofs, shewing the mischief of confidence in reputed specifics.

477. The leading indications are, A. To moderate the general febrile commotion with as little loss of *power* as may be, by—*a.* removing irritation from any morbid colluvies in the tract of the alimentary canal ;—*b.* abstracting any excess of heat, whether arising from pyrexia, or external temperature ;—*c.* restoring the cuticular transpiration by remedies acting on the stomach.—

d. diminishing the morbid irritability of the heart and arteries to the stimulus of the blood;—or *e.* if necessary, lessening the stimulus of this fluid from its quantity, and perhaps quality.

478. B. In the more atonic and advanced stages of the disease, to support the *power* of the system, and to obviate the general septic tendency, or to correct the actually septic state of parts, by—*a.* appropriate food and drink;—*b.* the more simply tonic remedies;—*c.* articles which operate chiefly by their general or local stimulus, and prevent the *action* from falling below the degree necessary to the maintenance of *power*;—*d.* articles that are chemically antiseptic.

479. C. Throughout the disease to watch and relieve particular urgent symptoms,—as vomiting, — difficult respiration and deglutition,—delirium,—diarrhæa, &c.

480. D. To guard against the diseases which are frequent sequels of Scarlatina.

481. Means suited to indication A.—*a.* Emetics, Purgatives:—remarks on the kinds of each—their general and their respective *modus operandi*,—and the circumstances limiting or excluding their use.—*b.* Cold affusion,—cold ablution; particular articles employed in the latter mode:—regulation of bed-clothes, and atmospheric temperature.—*c.* mild diaphoretics.—*d.* Digitalis, —Opiates?—*e.* Venesection?—Leeches.—

482. Indication B.—*a.* Nourishing food,—Wine:—cautions necessary as to the quantity and quality of these.—*b.* Cinchona,—Angustura, &c.—*c.* Contrayerva,—Serpentaria,—Seneka;—Ethers,—Capsicum,—Ammonia.—*d.* Carbonic Acid Gas,—Infus. Rosæ,—Oxygenated Muriatic Acid, &c.—Astringent Gargles, &c.

483. Indication C. Tepid bath, fomentations,—blisters,—leeches,—opiates, &c.

484. D. Account of the diseases often following Scarlatina;—their respective frequency;—the circumstances under which they more especially take place;—and the means suited to their prevention.

485. Remarks on the measures proposed for limiting or destroying the contagion, and their ascertained effects.

Of Cholera.

486. Origin and meaning of the term *χολερα*.—SYN. Cholorrhœa or Gall-flux?—Mordechin. E. I.

487. CHARACTER.—Sudden and spontaneous attack of vomiting and purging of bilious fluid,—with severe pains in the stomach and bowels,—great anxiety,—prostration of strength,—and violent cramps in the calves of the legs.

488. Detail of symptoms in the order in which they usually occur;—and occasional variations in the degree and form of the disease, and in its result, from the co-operation of assignable causes: Varieties—*Ch. Spontanea*, *Ch. ab ingestis*.—Ancient distinction into *Ch. humida*, et *sicca*.—Cholera frequently precedes Dysentery in hot climates,—or accompanies the paroxysms of intermitting and remitting fevers,—*Ch. febrilis*.—Sometimes changes to bilious fever or Enteritis in this country, especially under certain management.

489. Circumstances which distinguish idiopathic Cholera from the porraceous vomiting and purging caused by certain poisonous ingesta.

490. PREDISPOSING CAUSES; peculiarity of consti-

tution, generally termed *bilious*, and often marked by irritability of stomach and intestines, and irregular excretion from the liver.—Long continued hot weather;—autumnal season;—*phytoseptic* miasma:—certain epidemic influence of atmosphere.

491. OCCASIONAL OR EXCITING CAUSES. Sudden refrigeration after excessive heat;—drinking largely of acid, or fermenting liquor;—eating cold, sour, or unripe fruits,—raw vegetables,—or any food difficult of digestion.—Drastic emetics or purgatives.—Passions of the mind.

492. PROXIMATE CAUSE. Sudden and excessive excretion of acrid bile, exciting violent spasms in the stomach and intestines, and profuse secretion from their surface.

493. THE PROGNOSIS must be drawn from the previous state of health and vigour of the patient,—the degree and kind of the symptoms present,—the duration of the disease,—the nature of the remedies (if any) already used, and their effects.—Symptoms which portend danger;—those which augur a favourable event.—Occasionally terminates in chronic diarrhœa, or dysenteric state.

494. TREATMENT. The indications are—1st. to evacuate the offending matter; and 2dly, to prevent the strength being exhausted by the violence of the pain, or the profuseness of the discharge.—Circumstances under which the first may be attempted directly;—others in which the second becomes necessary to obtaining the first with safety and effect.

495. Means suited to the first,—plentiful dilution with bland mucilaginous fluids: kinds of these usually

employed, and choice of them under certain circumstances.—Sometimes mild laxatives: cautions respecting these.

496. Means adapted to the second indication:—Opiates in quantity and frequency proportioned to the urgency of the case;—rules for their choice and mode of administration:—warm bath;—fomentations;—pediluvium.—Stimulant and anodyne liniments and embrocations.—Simple bitters and aromatics.—*Infus. panis tost.*:—ancient polenta.—Aq. meph. alcalina:—other alkaline remedies.—Haust. effervescens,—&c.—Nutritive food in small quantities.

497. Management necessary when the violence of the disease is allayed, to avoid its renewal, and prevent fever or inflammation from supervening: symptoms denoting the approach of these respectively.

498. Treatment proper during convalescence, — to prevent insidious disease from establishing itself in other shapes (493) — Probable means of avoiding future attacks of Cholera.

Of Diarrhœa.

499. Origin and meaning of the term.—SYNONYMA. *Alvi-fluxus*; — *Lienteria*; — *Cæliaca*; — *Enterrihœa*? — *Purging*, *Looseness*.

500. CH. OF IDIOPATHIC DIARRHŒA; — Unusually frequent and liquid stools, generally fœculent, — without vomiting, violent pain, or primary fever; — and not depending on weakness of the sphincter ani.

501. Strictures on the nosological place assigned to it by Dr. Cullen.

502. Diarrhœa not only varies considerably as an idio-

pathic disease, but is a common or accidental attendant upon many disorders both acute and chronic, general and local. Hence the necessity of minutely investigating its rise, progress, duration or recurrence,—preceding and accompanying symptoms,—and assigned or probable causes,—in order to determine its nature, or direct its treatment.—Circumstances distinguishing Diarrhœa from Dysentery, and from Cholera: alliance between these, and mutual conversion of them, shewn.

503. Variety in the colour, &c. of the matters evacuated, giving not only particular denominations to certain forms of the disease, but also affording important instruction as to their especial seat and cause:—viz. their being stercoraceous (*D. crapulosa*;)—containing undigested food (*Lienteria*);—being chalky;—yeasty:—inky (*Melæna*);—yellow (*D. biliosa*);—green, curdly (*D. lactentium*.)—glairy (*D. mucosa*);—milky (*Cæliaca*); serous—(*D. colliquativa*);—bloody (*Hepatirrhœa?*);—puriform (*D. purulenta*):—or, their being fetid,—acid,—or nearly inodorous, &c.—being copious or scanty;—occurring chiefly in the day or in the night;—soon after taking food, —or at any regular and more distant interval.

504. PREDISPOSING CAUSE. Original or acquired irritability of, or tendency to increased secretion from, the surface of the intestines.

505. EXCITING CAUSES. Cold applied, especially to the lower extremities. — Fear,—Anger, — and some other mental affections.—Diminished or suppressed perspiration.—Crude or sour fruits,—vegetable acids,—or fermenting acescent liquors.—Particular articles of

food in individuals, though inoffensive to others.—Sudden change from animal to vegetable food,—and the reverse.—Change in the water, &c. used.—Hypercatharsis from drastic purgatives, or from acrid matters swallowed. — Certain contagions. — Suppressing cutaneous eruptions, or stopping profuse or habitual discharges from sores, &c.—Metastasis of external inflammation.—Irregular, but oftenest defective state of the hepatic functions (512).

506. Enumeration of diseases in which diarrhœa is a common and prominent symptom,—and in which it sometimes proves critical and salutary, but often so much the contrary as to demand special attention, e. gr. fevers, —dentition, —worms, —phthisis, &c.

507. PROGNOSIS,—to be drawn from a consideration of the patient's age,—constitution,—and previous state of health;—the assignable causes of the disease;—its duration,—attending symptoms,—and effects,—with the remedies already employed, and their operation.

508. TREATMENT. This necessarily very different, from the various nature of the disease; and often can be only palliative; but if the discharge be not salutary and therefore demanding encouragement or regulation,—the leading indications will turn upon—whether it arise from—A. morbid irritability of the intestines;—B. preternatural stimulus applied to them;—or—C. a combination of these:—the *first* requiring the irritability to be allayed;—the *second* that the offending matter be expelled, or its acrimony corrected;—the *third*, a mixed plan, consisting of A, and B, jointly or alternately,—together with an attention to the state of other

functions and organs which may affect that of the primæ viæ.

509. Means adapted to A.—Opiates.—Tonic bitters, as Colombo,—Simarouba,—Lichen Islandicus, &c.—Astringents, as Hæmatoxylon,—Catechu,—Kino,—Resina Acoroidis,—Infus. Glandis Quercus torrefactæ, &c.——Lap. Calamin.—Zincum Vitriolat.—Alumen, Cerussa Acetata? &c.—Cautions respecting astringents.—Choice of these several articles, as respectively adapted to particular cases; and modes of administering them.

510. Means suited to B.—Emetics,—Purgatives,—Glysters;—Mucilaginous diluents;—Alkalies;—Antiseptics.

511. Means of fulfilling C.—Aq. Calcis cum lacte.—Prep. of Chalk, Testaceous Powders, Boles,—Haust. Oleosus cum Tinct. Rhab.—Pulv. Rhab. cum Natro.—Dec. Ulmi.—Determining to the skin by Diaphoretics,—tepid bath,—warm clothing,—friction,—gestation.—Restoring suppressed discharges, or establishing equivalent ones:—reversing inflammatory metastasis.—Suitable diet.

512. Necessity of a due performance of the hepatic function to the healthy state of the intestines, illustrated by cases;—and successful treatment of apparently idiopathic diarrhœa, both recent and chronic, upon that principle.

Of Dysentery.

513. Origin and meaning of the name.

514. CHARACTER. Violent griping, tenesmus, and

straining at stool, attended with frequent, scanty, and mucous, or bloody discharges from the intestines, while the proper fœculent matter is for the most part retained :—generally accompanied by pyrexia, either primary or secondary, and frequently contagious.

515. Detail of symptoms attending the rise and progress of the disease; and variety in the state of the pulse, skin, tongue, &c. accordingly as it is—sporadic or epidemic,—as without or with pyrexia,—as simple, or as preceded by cholera,—or combined with intermitting, remitting, or typhoid fever,—with hepatitis, enteritis, &c.

516. Examination of its alledged identity with Rheumatism (*Rheuma intestinorum*, Cœl. Aur.) and its contagion being that of Typhus accidentally conjoined. Refutation of this idea, and proof that its contagion is specific:—striking examples of Dysenteric contagion being generated *de novo*.—Account of the animalcular hypothesis of Linnæus.—Analogy between the different forms of Catarrh and of Dysentery respectively; illustrated by a comparison of the symptoms in each.

517. Variety in the morbid appearances of the intestines and neighbouring organs after death; and explanation of several phenomena of the disease, deduced from thence; as well as collateral support thereby given to a particular mode of treatment.

518. PREDISPOSING CAUSES. A particular, and perhaps original morbid tendency of the intestinal canal, probaby analagous to that in diarrhœa (504), but modified by the exciting causes, whether contagion, or common agents.—A morbid state of the hepatic system, however induced; often merely functional, but sometimes organic. Poor farinaceous,—or salted animal food.—

Scorbutic diathesis.—Epidemic constitution of air.—Autumnal season.

519. EXCITING CAUSES. The peculiar contagion, sometimes generated *de novo*, but oftener propagated from one to another by those labouring under the disease:—different modes in which this has been supposed to act.—Sudden alternation of heat and cold, especially if accompanied by dampness.—Accumulation of human effluvia. — Sulphurated Hydrogen Gas. — Sulphureous Acid Gas? — Crude austere fruits, &c. — Worms. — Drying up of extensive ulcers;—Suppression of chronic erysipelatous, or other eruptions.

520. PROXIMATE CAUSE. Inflammatory state of the mucous membrane lining the great intestines, with constriction of their muscular fibres.—Difference of the pain,—in *acute* and *chronic* stage.

521. DIAGNOSIS. Marks distinguishing dysentery from diarrhœa,—from erythematic enteritis,—from colic,—from cholera,—and from hæmorrhoids.

522. PROGNOSIS,—to be founded on the age,—constitution, and previous health of the patient;—the number and degree of the symptoms,—their duration and consequences;—the general tendency of the epidemic:—the remedies already employed, and their effects.—*Favourable symptoms*; diminution of pain and of calls to stool;—reduced frequency and hardness of pulse;—equable moderate warmth, and gentle diaphoresis;—scabby eruptions about the mouth:—miliary or other general eruptions;—increased consistency, and fœculent appearance of the alvine discharge.—*Bad symptoms*; violent fever with delirium,—or cold viscid sweats, with great prostration;—tension and tenderness of the abdomen;—

worms coming away spontaneously;—aphthæ of the fauces;—singultus, &c.

523. THE TREATMENT will require to be varied considerably, according to the circumstances mentioned in par. 515; but chiefly as the disease is *acute* or *chronic*.

In the early stage and more *acute form*, the principal indications are,

A. To lessen inflammatory action whether general or topical;—by venesection?—leeches;—cupping;—blisters. — Consideration of the circumstances under which these are respectively proper.

B. To remove the irritation given to the *primæ viæ* from the remains of alimentary matters lodged there, or from their own diseased secretions;—by—*a.* Emetics, —*b.* Purgatives, —*c.* bland mucilaginous diluents. — Choice of individual articles best suited to each of these purposes in certain cases.

C. To take off the excessive sensibility of the intestines, and thereby allay pain, and relax spasmodic constriction;—by opiates, assisted by the warm bath, fomentations, and embrocations. — Common objection against the early use of opiates, examined,—and shewn to depend upon mismanagement. — Rules for their employment, in alternation or conjunction with other remedies.

D. To restore a due balance between the functions in general;—by augmenting those that have been diminished, and correcting those that have been vitiated. — Application of this more especially to the cuticular and hepatic functions (518-19); and explanation thence of the benefit arising from the employment of Sudorifics,—and also of simple bitters,—Antacids,—and Mercury,—

illustrated by cases and authorities :—with directions for their choice and management.

524. Occasional variation necessary in the order and extent of these indications.—Particular treatment required where the dysentery is joined with intermitting, remitting, or typhoid fever, &c. (515) ; and mischievous effects arising from the indiscriminate use of astringents and stimulants.

525. Remarks on particular remedies alledged to have a specific power ;—Ipecacuanha ;—Vitrum Antimonii ceratum ;—Mist. Natri Muriati cum Succo Limonis, &c. &c.

526. Period at which Dysentery may be deemed CHRONIC.—Variety in the appearance of the stools, indicating the probable degree and mode in which the intestines are disordered ;—e. gr. simply mucous (*D. alba vel mucosa*), streaked or tinged with blood (*D. cruenta*)—ragged, —scybulous, &c.—Symptoms indicating disease in others of the abdominal viscera, functionally connected with the intestines, and requiring particular attention in the treatment of the ostensible complaint ;—as the liver, stomach, &c.

527. In the *Chronic Dysentery*, with the exception of bloodletting, the *general* indications are the same as in the *acute* form, A to D ;—but differing in the less activity of the individual means employed, proportioned to the slower progress and more organic nature of the disease.

528. Remarks on certain articles suited to B.—Ol. Ricini ;—Ol. Lini cum Tinct. Rhab.—Pulv. Rhab. cum Natro.—Lac cum farina tritici et sevo ovillo ;—Cera cum Sapone.—Demulcent glysters.

529. Articles adapted to C. — Opiate frictions and injections. — Extr. Hyoscyami, &c.

530. Explanation of the principles upon which the mercurial treatment is to be conducted, grounded on long experience. — Observations on certain articles co-operating with Mercury, or proving occasional substitutes for it; and an account of the effects of ripe saccharine or subacid fruits in obstinate dysenteries.

531. Diet and regimen proper during the convalescent state, to prevent relapse, and guard against future attacks.

OF HÆMORRHAGE IN GENERAL.

532. Origin of the term. — Improper restriction of it by Sauvages and Vogel, to signify one particular discharge of blood. — SYN. Sanguifluxus, *Sauv. et Sagar.* — Anglicè *bleeding*.

533. DEFINITION. An excessive, and generally preternatural flow of blood from any part of the body. — The universality of this definition shewn.

534. Division of spontaneous hæmorrhage into two principal *forms*, viz. the *active*, or that accompanied by, and chiefly dependant upon, a general increase of force as well as frequency of arterial actions; — and the *passive*, or that which happens without such general action, but merely from congestion, or from extreme weakness of vessels, with or without a dyscrasy in the blood. Remarks on the remote places assigned to these by Dr. Cullen in his Nosology; and on the definitions and very dissimilar names he gives them. — Terms, *Hæmorrhagia* and *Hæmorrhœa* proposed to designate them respectively.

535. Comparative frequency of one or other form (534).—Distinction of hæmorrhage as being *critical* and *salutary*, or the *contrary*;—and the diseases in which the former more especially happen, as well as the parts from which they chiefly take place.—Division into *casual*, and *periodical*; with the periods that are most common, and the probable causes.

536. The genus usually denominated from the *source*; e. gr. from the nose *Epistaxis*;—from the lungs *Hæmoptoe*;—from the stomach *Hæmatemesis*;—from the rectum *Hæmorrhoids*;—from the kidneys or bladder *Hæmaturia*;—from the uterus *Menorrhagia*, &c. &c. Enumeration of compound names that would express both the *source*, and the *form* (534) of the disease.

537. Approach of *active* hæmorrhage marked by sense of general heat and fullness, or by sudden flushings, sometimes alternating with chilliness, — but always accompanied by unusually frequent, generally throbbing, and sometimes hard pulse;—together with certain uneasy feeling, referred especially to the part from whence the blood is about to flow.—Where the vascular action arises from general hæmorrhagic commotion or effort, it subsides more or less as the bleeding proceeds;—if not, some other cause of pyrexial irritation may be suspected.

538. Account of Solano's observations on certain states of the pulse as indicating the period and degree of approaching hæmorrhage:—are countenanced by a few persons of authority.

539. Difference between the texture of the blood in active hæmorrhage and in inflammation; and explanation why inflammatory complaints seldom attended with

discharge of blood.—Question whether the solids or the fluids primarily in fault, discussed;—and reasons for believing that spontaneous hæmorrhage, both active and passive, proceeds in a great degree from an assignable cause hitherto overlooked.—Difference of colour of the blood in *active* and in *passive* hæmorrhage (534); and the conclusion usually drawn from thence, with respect to the immediate source of each, shewn to be liable to considerable doubt.

540. PREDISPOSING CAUSES. Original constitution, which may be denominated *hæmorrhagic*,—often connected with sanguineous temperament, but sometimes with different exterior character, and then seemingly owing to particularly weak vascular structure of certain parts:—both often hereditary.—Plethora, —whether arising from full living, from indolence, or from stopping natural or customary discharges:—Dr. Cullen's explanation of the mode in which periodical bloodletting occasions plethora, objected to, and another offered.—Original mal-formation of certain organs,—often connected with, and supposed to depend upon, defective shape and size of external parts.—A tendency to recurrence—begotten by repetition.

541. Account of the successive developement of certain parts of the body in the progress of growth; and explanation why the tendency to Epistaxis and to Hæmoptœ, most remarkable at particular ages respectively.—Change in the relative capacity and condition of the arterial and venous systems after middle life, described; and corresponding change in the nature and most frequent sources of hæmorrhage, at that period, pointed out.

542. OCCASIONAL OR EXCITING CAUSES, — whatever can increase the violence of the general circulation, or augment the impulse of the blood in vessels that are weak or slightly supported. — e. gr. External heat; notion that it acts by expanding the blood, disproved: — its true mode of operating shewn. — Diminished pressure of atmosphere, — as on ascending high mountains: Expts. of Dr. Darwin, confirmed by Dr. Simmons and Mr. Cline, proving that it does not act by rarifying expandible air in the blood. Dr. Darwin's conclusion, of its inefficiency as a cause of hæmorrhage, refuted; and its effects explained and illustrated. — Violent muscular efforts, — as running, — lifting great weights, — long and loud speaking, — blowing wind instruments. — Posture; — as depending position of the head in Epistaxis, — erect sedentary one in Hæmorrhoids. — Tight ligatures round the neck or limbs. — Fits of anger; — other mental emotions? — Excess in spiritous liquors. — Use of Opium in apoplectic diathesis. — Doubts respecting the alledged effect of cold as a cause of hæmorrhage. — Blows, falls, &c. — Destruction of blood-vessels by cancerous, syphilitic, or other ulcers.

543. PROGNOSIS. To be drawn from the age, original constitution, and previous health of the patient; — the form (534), source, and causes of the hæmorrhage; — its habit of recurrence; — its degree, and the effect it has had upon the constitution: account of prodigious quantities of blood lost, where the persons notwithstanding recovered.

544. Examination of the doctrine of Stahl and his followers, — that spontaneous hæmorrhage was an effort

of the constitution to get rid of something hurtful ; and therefore seldom to be put a stop to.

545. THE TREATMENT in detail, as applying to hæmorrhage in general, extremely various; but in a great measure directed by the *form* (534) of the disease. — In

Active Hæmorrhage.

546. The indications are,—A. To avoid or remove such occasional causes (542) as may still continue to act.—B. To lessen the distension and impetus of the blood, by—*a.* diminishing its quantity ; — *b.* allaying excessive irritability of the heart and arteries,—*c.* correcting certain morbid quality of the circulating mass? ——C. Taking off any accidental irritation arising from the state of the stomach and intestines.——D. Allaying pain, — procuring an equable distribution of blood throughout the vascular system,—and thereby taking off too great determination of blood to particular parts.

547. Means suited to A.—Regulation of atmospheric temperature, clothing, &c.—Abstracting heat from the body by—cold applied to the surface—to the stomach, —to the intestines :—different means of effecting this.—The use of potential refrigerants, as Nitre, Acids, &c. ; remarks on the circumstances in which they are useful or proper.

548. Means suited to B.—*a.* General and topical bloodletting : — different modes of them and their management.—*b.* Direct Sedatives, as Digitalis, Cerussa Acetata, &c.—*c.* Facts tending to shew the influence of the hepatic function upon the mass of blood (539) illustrated by cases, proving the remarkable success of remedies directed to remove certain morbid states of that function in hæmorrhage.

549. Means suited to C.—Emetics, — Purgatives; choice of them in particular cases.

550. Means suited to D.—Opiates, Extr. Hyoscyami —Relaxing diaphoretics:—nauseating doses of emetic remedies.—Sailing, swinging, &c.

551. Diet and regimen proper during the continuance of active hæmorrhage, and calculated to prevent a return.

552. Particular application of the principles above delivered, (534-50) to the treatment of *Epistaxis*, *Hæmoptoe*, and other hæmorrhages which most frequently assume the *active* form.

Passive Hæmorrhage.

553. Gradations of *active* and *passive* hæmorrhage mutually approximating towards each other; — and change of the *former* into the *latter* by continuance or repetition.

554. Remarks on the general condition of the system which attends the *passive* form of the disease,—as leading to certain indications of cure opposite to those proper in the *acute* form;—and reasons for believing, that a morbid state of the hepatic function is common to both.

555. In the TREATMENT of PASSIVE HÆMORRHAGE, the general indications are—A. To allay pain or other local irritation:—B. To induce contraction and coagulation in the mouths of the bleeding vessels:—C. To restore any diminished or suppressed excretion; and thereby lessen the determination of blood towards the seat of the hæmorrhage.—D. Lastly, to increase the tone and vigour of the system at large, and correct any dyscrasy of the circulating mass.

556. Means suited to these several indications respectively:—A. Opiates;—cold applications;—purgatives: choice of these, and the modes of employing them.—B. Astringent remedies internally.—Alum,—Kino,—Dec. Salicis,—Maltese Styptic,—Infus. Rosæ,—Zincum Vitriolatum,—Cuprum Vitriol.—Cerussa acetata, &c. Account of the process of nature in stopping the discharge of blood from vessels mechanically divided: and application of this to the treatment of *passive* hæmorrhage: observations on Syncope,—on nauseating remedies,—and on the general and topical use of stimulant articles, ex. gr. Ammonia pptā.—Ol. Terebinth.—blisters, &c. —C. Diaphoretics;—Setons;—Issues; Emmenagogues, &c. —D. Cinchona,—Myrrh,—Chalybeates,—suitable nutritive food;—friction;—exercise;—cold bathing.

557. Remarks on certain articles alledged to possess peculiar powers in particular kinds of hæmorrhage;—Soda Muriata; — Ol. Lini cum Tinct. Rhab. &c.

558. Special application of the principles laid down (553-6), to the treatment of *Menorrhæa*,—*Melæna*,—*Hæmorrhæa petechialis*;—and *Hæmaturia senilis*, illustrated by cases.

Of Hæmorrhoids.

559. Derivation of the name.—SYN. Hæmorrhoids, —*Angl.* Piles.

560. CHARACTER.—Discharge of blood, or bloody fluid, immediately before or after the fæces,—generally issuing from soft, livid, and painful tumours, which take place around or within the verge of the *rectum*.

561. Division of hæmorrhoids into *active* and *passive*,

—into *constitutional* and *local*;—with an account of the circumstances under which the one or the other form more especially occurs,—and the symptoms which accompany and distinguish it.—Strictures on Dr. Cullen's definition, which considers it as always an *active* and *constitutional* hæmorrhage; and reasons for believing that it is very often *passive* and *local*.

562. PREDISPOSING CAUSES. Original laxity of the hæmorrhoidal vessels.—Plethora:—suppression of menstrual or other customary sanguineous discharge.—Inactive and sedentary life.—Melancholic temperament:—hypochondriacal and gouty disposition.—Advanced age (541)—The hæmorrhagic habit formed by repetition, disposes to future returns.

563. EXCITING CAUSES. Whatever opposes the free return of the blood from the hæmorrhoidal vessels, whether hardened fæces, distended uterus from pregnancy, &c. preternatural tumours within the abdomen;—or obstruction of the Vena Portæ from congestion, torpor, or induration of the liver.—Frequent use of purgatives, especially aloes.—Erect sitting posture.—Modes in which these causes appear respectively to operate.

564. Difference in the state of the tumours, accordingly as they consist of varicose veins, or of blood effused into the cellular membrane;—as they are painful or indolent;—bleeding or *blind*;—compressible and fugitive, or indurated and permanent.—They occasionally suppurate, and discharge externally; and when they do so within the rectum, are perhaps the most common origin of *fistula in ano*.

565. DIAGNOSIS. Symptoms distinguishing Hæmorrhoids from Dysentery,—and from Melæna,

566. Enquiry into the opinion advanced by some eminent physicians,—that the hæmorrhoidal discharge should often be permitted or encouraged rather than suppressed,—as giving great relief to complaints of other parts, particularly the head. The reason of its proving salutary or critical in such cases, explained;—and proofs given of its being even then the index of another morbid state, which may and ought to be removed by other means.

567. PROGNOSIS. Generally favourable where the patient is young, and the disease of the *active* form: but the contrary in advanced life if the bleeding be profuse, the general strength impaired, or any of the important viscera be unsound.

568. THE TREATMENT,—as in hæmorrhage in general, considerably regulated by the *form* of the complaint (534); but in a great degree also, by circumstances peculiar to its situation, as well by the predisposing and exciting causes, (562-3) and the particular state of the tumours (564). As far as it is either an *active* or a *passive* hæmorrhage, and *dependant upon a corresponding condition of the vascular system at large*, the several indications already given (546, 555), will apply; but in its *passive* form, it is much more influenced by local circumstances than most other hæmorrhages; and accordingly demands some means especially suited to itself.

569. The special indications then, are,—A. To lessen or remove as far as may be, such exciting causes (563) as continue to act.—B. To diminish the bulk, and allay the pain of the tumours.—C. To restore tone and vigour to the vessels which had been over-distended, or ruptured.

570. Means of fulfilling A;—Cooling or mild pur-

gatives;—laxative articles of food, especially of the vegetable kind,—regular habit of going to stool:—Mercurial preparations, either cathartic or deobstruent as the case requires. — B. Leeches,—puncturing:—Aq. Litharg. Acet. Comp.—fomentations:—Opiates internally and externally; Extr. Hyoscyami;—Cataplasma Fol. Belladonnæ.—C. Local cold bath, — astringent lotions, &c. of Alum, Vitriolated Zinc, Galls, Oak-bark, &c.

571. Remarks upon certain articles of the stimulant kind which prove particularly beneficial in chronic hæmorrhoids;—Bals. Copaibæ,—Ward's Paste, &c.—Management necessary when the rectum is prolapsed.—Circumstances under which extirpation of the tumours become adviseable.

Of Scurvy.

572. Origin and meaning of the name,—**Scharbock**, Teut.—Vague and dissimilar ideas attached to the term *Scurvy* as often used in common, and not unfrequently in medical language: its strict and proper meaning.

573. GENERAL CHARACTER. Debility, lassitude, and dyspnæa,—with fœtor of breath,—spongy swelling and bleeding of the gums,—livid blotches on the skin,—swelling and hardness of the legs, contraction of the hams,—dejection of mind,—and faintness, or even syncope upon exertion;—without fever.

574. Detail of symptoms marking the several stages, and most aggravated degrees of the complaint:—and description of the morbid appearances exhibited on dissection, accounting for the variety of circumstances observable in individual cases.

575. PREDISPOSING CAUSES. Original constitution, often marked by tendency to corpulence,—very generally by sluggish disposition of body, and inactive desponding turn of mind. — General debility from preceding illness of any kind.—Disease of the chylopoietic organs especially.

576. EXCITING CAUSES. Diet affording unsuitable kind, or inadequate quantity of nourishment; but particularly salted or corrupted animal food, with defect of fresh esculent vegetable matter:—scanty supply, or bad quality of water.—Coldness of climate, season, or situation,—especially when combined with moisture, and foggy atmosphere.—Excessive fatigue,—or idleness and inaction.—Depressing passions.—Foul air, especially from stagnant water, marshes, &c.

577. Why this disease little known to the Greeks and Romans;—why particularly frequent in extra-tropical climates, and during long voyages and cruises;—and why much less so now than formerly.

578. Account of the different theories which have been offered to explain the phenomena of the disease, and determine its nature; particularly with respect to its being primarily a disease of the *fluids*, or of the *solids*. —Oldest theory, — putrid ferment: — Dr. Lind's; — laxity of solids, and putrid *tendency* of blood: — Dr. Macbride's,—deficiency of *fixed air*: — Dr. Cullen's,—imperfect state of the *animal mixt*: — Dr. Milman's,—gradual diminution of vital power in the muscular fibre: — Dr. Beddoes's,—deficiency of oxygene in the system.

579. Examination of these,—the objections to which they are respectively liable in particular cases;—and view of the disease as arising under very different circumstances

with respect to food, &c.—with general principles which embrace the several varieties of the complaint, and lead to their appropriate and effective means of cure.—Illustration of these principles by a comparison of Scurvy with *Hæmorrhæa petechialis*, and the particular mode in which the latter has been successfully treated.

580. The general indications are,—A. To avoid or diminish as much as possible such of the predisposing and exciting causes as are known to exist in the particular case, especially in the article of food, clothing, &c.—B. To attend to and correct the morbid condition of particular functions and parts which take place more remarkably in some individuals than in others.

581. The vast importance of A. both in the prevention and cure of Scurvy, shewn, in the striking difference between the state of Lord Anson's and Captain Cook's ships' companies, during their respective voyages round the world; with a detail of the several means employed by the latter, under the heads of—food, —drink, —clothing, —labour, —exercise, —amusement, —cleanliness,—subordination, &c.

582. Observations on the functions of the skin, intestines, and kidneys, in scurvy; and on certain remedies which have been occasionally employed in aid of the general antiscorbutic plan (580), for relieving urgent symptoms, and expediting recovery;—under the heads of diaphoretics, —laxatives, —and diuretics. —Of the earth bath, and its operation.

583. Remarks on particular articles which have been proposed as adequate to the cure of scurvy under a defect of fresh acescent vegetable matter:—e. gr. Mineral acids; —Nitre; —Vinegar; —sour Krout; —crystallized citric

acid;—wort;—spruce beer;—sour flummery or *sooins*,—*Quass*,—dried vegetables: &c.—with the testimonies for and against them.

584. Remarks on the external treatment of ulcers occurring in actual scurvy, or in a scorbutic diathesis.

Of Dropsy in General.

585. DEFINITION. A preternatural accumulation of serous or coagulable fluid, in the cellular substance, or in other cavities of the body.

586. Division of dropsy into *genera* according to its seat, with their allusive names and derivations; *e. gr.* in the cellular membrane, *Anasarca*. SYN. Sub-cutaneous,—interstitial,—or diffused dropsy:—in the cavity of the abdomen, *Ascites*, or peritoneal dropsy:—in one or more preternatural sacs, *Encysted dropsy*,—and this often *Ovarial dropsy*:—in the chest—*Hydrothorax*; SP. *Hydrops Pleuræ*,—*Hydrocardia*,—*Hydrops pulmonum*:—in the head,—*Hydrocephalus*, SP. *H. externus*,—*H. Internus*,—or *H. meningum*, and *H. cerebri*:—in the cavity of the scrotum—*Hydrocele*:—in a joint,—*Hydarthrus*: in the eye,—*Hydrophthalmia*:—in the spinal theca,—*Hydrorachitis*, SYN. *Spina bifida*.

587. Account of the opposite, but allied functions of the Exhalants and Absorbents; proving that every dropsical complaint depends immediately upon a loss of balance between these two sets of vessels.—Enquiry how far the one, or the other, or both, be generally in fault; and reasons for concluding, that the morbid condition exists generally and chiefly in the exhalants.

588. PREDISPOSING CAUSES. Original constitution,—sometimes general, sometimes local,—occasionally

hereditary;—often marked by a lax and sluggish state of the nervous and muscular systems, with a pale doughy complexion, and tendency to corpulence,—answering to the leucophlegmatic habit of the ancients, and by them referred to a morbid condition of the fluids:—arguments for and against the humoral pathology of dropsy.—Bad air.—*Damp* atmosphere?

589 EXCITING CAUSES. Scanty, poor, or indigestible food.—Excess in the use of thin, and watery liquids: Sudden refrigeration, especially when previously overheated and fatigued:—Excessive loss of blood;—Profuse discharges of other kinds.—the operation of these several causes illustrated by striking examples, and experiments:—reasons why loss of blood more particularly induces dropsy.—Preceding diseases, especially fevers, and inflammations:—marked locality of their operation in many instances:—why intermittents in particular, often bring on dropsy, and especially Ascites.—Injuries, as blows, sprains, &c. often cause local hydropic effusion.

590. Suppression of natural or customary evacuations; as of perspiration,—urine,—menses,—hæmorrhoids, &c. The mechanical and humoral operation of these objected to, and their influence explained in a different way:—reasons for believing that they are oftener consequences, perhaps, than causes, of the morbid derangement which is succeeded by dropsy.—Depressing passions; their effects in bringing forth the particular morbid tendency pointed out.—Abuse of fermented and spiritous liquors.

591. Obstruction to the free passage of the blood—alone sufficient to produce dropsy, beautifully illustrated by the expt. of Lower:—why compression of both

arteries and veins, and even of the arteries alone, should have the same effect,—explained in various examples, both of local and general dropsy.

592. Of the kind and degree of inflammatory action which terminates in hydropic effusion,—and the parts where it especially takes place; elucidated by cases and dissections.

593. GENERAL PROGNOSIS,—requires an extended consideration of the age, and constitution of the patient,—the variety and degree of the causes,—the symptoms and duration of the complaint,—its being simple, or complicated with other disorders.—Universally, however, the less the tone of the system is impaired, and the blood impoverished, the sooner and more completely will the disease yield to proper remedies: whilst the disease that occurs in advanced life,—in a leucophlegmatic habit,—and is brought on by intemperance,—or connected with organic disease of the heart, lungs, liver, ovarium, &c. medicine may relieve, but will seldom cure.—Women said to be oftener cured than men; considerable exception to this:—and short persons oftener than those of large stature.—*Unfavourable signs*,—progressive wasting;—purple or livid blotches, or erysipelatous eruptions on the skin;—fœtor of the breath;—hæmorrhage from the nose, mouth, lungs, stomach, or intestines;—drowsiness;—constant feverish heat and great thirst, unless these proceed from heating medicines, and abstinence from drink:—spontaneous diarrhœa without relief:—the swelling, when reduced by medicine, returning quicker than before.—*Favourable signs*—absence of those just mentioned;—the pulse being steady, not quick, and of

good strength;—the deficient excretions, especially the urine, and perspiration, being sensibly increased by remedies not very powerful in their kind.—Conclusion to be drawn from the consistence, &c. of the effused fluid.

Of Anasarca, or Interstitial Dropsy.

594. CHARACTER. Diffused swelling of a part, or of nearly the whole body, having usually the ordinary colour of the skin,—easily receiving the impression of the finger, and retaining it for some time;—shifting its situation more or less according to posture, and generally occupying the most dependant parts.

595. Division of Anasarca by Nosologists, into Species or Varieties, according to its alledged cause.

596. Of the parts in which it generally appears first,—its progress,—attendant symptoms,—and the modes in which it proves fatal.—Occasional difference in the quantity, &c. of the urine, between this and other dropsies, and conclusions that may be drawn from it.—Has occasionally been removed by fever supervening; and in a few instances by spontaneous oozing through the pores of the skin.

Of Abdominal Dropsy.

597. Division of this into *Ascites*, or *Peritoneal Dropsy*,—and *Encysted Dropsy*.

598. CHARACTER OF ASCITES. A uniform, tense, and nearly inelastic swelling of the belly, accompanied with fluctuation.

599. Symptoms generally ascertaining ENCYSTED DROPSY;—the swelling in the latter being at first local,

—often attended with pain;—fluctuation being obscure or altogether imperceptible;—dragging uneasiness on turning in bed, &c.

600. Of the parts in which hydropic cysts most commonly occur;—their different structures in different instances;—proofs of the animalcular nature of hydatids (*Tenia hydatigena*, Lin.): and difficulty of accounting for their presence in the living body.—Why encysted dropsy more frequent in women than in men:—why generally fatal at last; and why more slowly so than the other forms of dropsy.

601. Under what circumstances Ascites and Anasarca are simultaneous or successive.—Modes in which Ascites and Encysted dropsy respectively destroy life.

602. Of the delicacy and difficulty which occasionally attend the diagnosis between abdominal dropsy and pregnancy: and of the marks which serve to distinguish them.—Fatal effects from mistaking enlarged spleen or kidney for ascites, and performing the operation of paracentesis.

Of Hydrothorax.

603. SYMPTOMS which usually attend it;—shortness of breath;—paleness or purple hue of the face;—difficulty of lying in a recumbent posture;—frequent, sudden, and spontaneous starting up from sleep, with sense of suffocation, and palpitation of the heart;—paucity of urine;—œdematous swelling of the lower extremities.

604. Difficulty of determining the existence of hydrothorax in general; and still more the particular part in which the fluid is collected; necessity for this purpose, of investigating its rise and progress,—the preceding as

well as accompanying symptoms,—and the collateral circumstances of constitution, age, habits of life, &c.

605. Method of detecting water in the chest, as recommended by Hippocrates; deception to which it is liable, illustrated by a case:—danger attending the trial. Test proposed by Avenbrugger, and its futility shewn.

606. The prognosis in hydrothorax generally unfavourable:—instances, however, in which a recovery took place under the most unpromising symptoms.

Of Chronic Hydrocephalus.

607. Division of hydrocephalus into two distinct and widely different forms of disease, viz. the *acute* and *chronic*.—Reasons for considering only the latter under the general head of dropsy, and treating of the other separately.

608. CHARACTER. Obvious and uniform enlargement of the cranial vault in young children, with defective ossification of the bones, and consequent openness at the sutures.

609. The disease usually connate, perhaps congenital. Examples of it considerably before birth.—Progress of the complaint, and the effects it produces.

610. Appearances on dissection; and difference between the seat of this, and of a species of hydrocephalus often terminating the life of insane adults.

611. Why the prognosis *universally* bad.

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612. *Hydrocele*, *Hydrorachitis*, and *Hydrophthalmia*, as falling almost exclusively under the surgeon's management, referred to another place.

General Cure of Dropsy.

613. The indications are—A. To remove the effused fluid;—B. To obviate the causes which gave rise to it;—C. To prevent a return of the disease.

614. The fluid may be removed either *indirectly*, through the natural excretories of the body, as the stomach, intestines, kidneys, and skin, by means of their corresponding evacuents, emetics, cathartics, diuretics, and diaphoretics,—or *directly*, through new outlets produced by punctures, blisters, &c.

615. *Emetics*; their antiquity in the treatment of dropsy;—drastic ones much used by Sydenham;—uncertainty of them.—In what cases they are indicated;—in what dangerous.—Choice of the kinds adapted to the particular case.

616. *Cathartics*; are among the most powerful anti-hydropsics:—their use *generally* proportioned to the quantity of fluid discharged. Why more effectual in ascites, and less so in hydrothorax, than in other kinds of dropsy.—Rules for their management.—Individual articles.—Pulv. Jalapii Comp.—Pulv. Scam. cum Calomelane.—Gambogium.—Elaterium.—Pil. Argenti Nitrati?—Saline Cathartics,—Cryst. Tartari, &c.

617. *Diuretics*, generally indicated, but often disappoint expectation, and of themselves rarely adequate to a cure.—Accurate comparison of their powers much wanted.—The kinds indicated under certain circumstances.—Particular articles;—Squills, and its combinations:—Colchicum; its uncertainty and frequent failure:—Lactuca Virosa,—testimony of Collin and Stoll

in favour of it;—probable mode in which it operates.—Bacher's Pills.—Cuprum Ammoniatum, et vitriolatum.—Nicotiana; difficulty attending the rationale of its operation.—Digitalis; striking opposition of testimony respecting it;—attempt to explain its diuretic effect upon a new principle:—management necessary to render it safe.—Opium? occasionally operates as a diuretic.—Diluted acids, and mild saline neutrals;—Nitre,—Kali Acetatum, &c.—*Stimulant Diuretics*; Tinct. Cantharidis,—doubts and cautions respecting its employment.—Infus. Sinapeos, Raph. Rustic. et Dauci Sylv.—Decoct. Petroselini, cacuminis Genistæ, folior Cynaræ, &c.—Turpentine and Balsams,—Cerevisia Pini,—Aq. Picis;—Æthers, &c.

618. *Diluents*. Abstinence from liquids long strenuously inculcated;—discovery of its bad consequences, and great benefit of an opposite plan shewn both from principles and facts.—Kinds of diluents suited to particular cases.

619. *Diaphoretics*. The skin a copious outlet of watery fluid;—its function very generally impaired, and difficultly restored in dropsy. Why diaphoresis most useful when indirectly obtained.—In what cases especially indicated.—Cautions against forcing it, as the ancients attempted to do.—Means,—Baln. tepid.—Pulv. Ipec. Comp.—Vinum Antim. Opiatum,—Aq. Ammoniacæ Acetatae, &c.—Method of exciting local diaphoresis,—Vapour bath,—oiled silk, &c.

620. The quantity of discharge by expectoration too small to encourage their use for the purpose of evacuating through the lungs.

621. *Friction*,—anciently much employed; why per-

haps too much neglected now:—Testimonies in its favour.—Its operation explained:—adjuvants to it.

622. *Electricity*,—a powerful excitant of vascular action. In what cases likely to prove serviceable;—in what useless or hurtful.—Modes of it suited to different cases.

623. *Mercury*. The universal operation of this remedy shewn; and the variety of indications which it is capable of fulfilling, pointed out and explained.—The cases in which it is more especially beneficial, and the proper management of it.

624. *Direct method* of removing the effused fluid (614);—Paracentesis in Ascites;—its early use often injurious; mischief on the other hand from postponing it too long:—under what circumstances it should be had recourse to. Management necessary during and after the operation. Doubts respecting its employment in hydrothorax:—why inadmissible in hydrocephalus.—Dangerous proposal of injecting liquids into the thoracic or peritoneal cavities.—Puncturing in Anasarca;—necessary cautions respecting the part, the mode, and the circumstances of the case, in which it is performed, so as to avoid inflammation or gangrene.

625. *Blisters*, or *Epispastics*;—the discharge by them often very great without vesication, and always stopped when inflammation supervenes:—application of this to regulate the mode of using them.

626. To fulfil the second indication (B. 613), not only necessary to avoid or diminish such of the external exciting causes as may still continue to operate, but also accurately to investigate the internal cause or causes immediately occasioning the loss of balance between exha-

lation and absorption; *c. gr.*—*a.* general debility operating more especially upon the exhalent vessels;—*b.* weak inflammatory action (592);—*c.* obstruction, from congestion of blood, from torpor, or from change of structure, in any considerable viscus, as lungs, liver, spleen, &c.

627. Means adapted to *a.*—Tonics of various kinds, particularly the simple bitters, variously combined with alkalies, acids, stimulants, chalybeates, &c. accordingly as the circumstances of the case may require.

628. Means suited to *b* and *c*;—blisters;—Mercury combined with opiates, and antimonials;—Cicuta,—Extr. Taraxici? &c.

629. Remarks upon the general treatment of dropsy;—the diet and regimen suited to the circumstances of the case;—and the means likely to prevent a recurrence of the disease.

630. A due attention to the principles delivered above, will readily point out the particular means especially adapted to the individual kind (586) or species of dropsy.

Of Acute Hydrocephalus.

631. Reasons for considering this disease separately and particularly.

632. SYN. Hydrocephalus internus, *Whytt*;—Apoplexia Hydrocephalica, *Cull.*—Hydrocephalus acutus, *Quin.*—Phrenicula, *Rush.*

633. CHARACTER. Anorexia,—lassitude,—heaviness, and pain of the head, and intolerance of light,—accompanied with febricula, costiveness, and vomiting,—and followed by unusual slowness of pulse,—dilatation of the pupils,—strabismus,—and restless somnolency, or stu-

por:—chiefly attacking persons under puberty, and more especially children.

634. Particular detail of the mode in which the disease usually commences and proceeds,—and occasional variety in the number,—order,—degree,—and duration of the symptoms,—according to the age, constitution, &c. of the patient;—reconciling the dissimilitude of individual narratives, and accounting for the opposite ideas of those authors who have framed a general character from a few cases, or adopted theories respecting its nature and proper mode of treatment in the *early* stage, from the manner in which the disorder *terminates*.

635. Striking changes of symptoms in the progress of the complaint, dividing it into *three* distinct stages,—1st, of irritation,—2dly, of oppression,—and 3dly, of ineffectual reaction.

636. Account of the morbid appearances after death, explaining the circumstances of par. 635;—and strictures on the propriety of the different names (632) given to the disease.

637. PREDISPOSING CAUSES;—A peculiarity of constitution, evidently allied to scrophula,—often hereditary,—and usually marked by irritable and delicate frame of body, acuteness of intellect, and liveliness of disposition,—and sometimes by a peculiar form of the head:—Impetfect convalescence from Scarlatina, Measles, Small Pox, Whooping Cough, &c.

638. OCCASIONAL OR EXCITING CAUSES,—whatever can produce considerable pyrexia of the inflammatory kind, in children predisposed to the disease, *e. gr.* sudden refrigeration;—the irritation of teething, and of worms, especially if attended with convulsions.—Bilious

vomiting and purging suddenly checked.—Disease of the brain itself, from blows, falls, &c. or from scrophulous or other tumours formed within its substance.—Other causes alledged, but less obvious in their operation, *e. gr.* suppression, or spontaneous metastasis, of Tinea Capitis, and of other eruptions,—healing of old ulcers, issues, &c.

639. OF THE PROXIMATE CAUSE. General view of the disease, and comparison of it with phrenitis in adults (294),—leading to the conclusion (supported by the most effectual means of cure), that the affection of the brain, though the immediate cause of death where the case ends fatally, is yet, in general, only a consequence of inflammatory irritation, with diminished or altered function, of the liver.

640. DIAGNOSIS. Difficulty of distinguishing this disease in its early stage, from the febrile state occasioned by dentition or by worms,—owing to their having many symptoms in common:—circumstances in which they agree;—others in which they differ; and importance of a timely discrimination to the safety of the patient.

641. PROGNOSIS,—even in the *first* stage (635) doubtful;—in the *second* very unfavourable;—and in the *third* uniformly hopeless. Particular circumstances denoting one or the other of these.

642. TREATMENT.—This, to give a tolerable chance of success, must be decisive,—be entered upon early,—and pursued with vigour. The chief indications are—
A. To diminish the inflammatory action of the brain directly, by venesection, leeches, cupping, blisters, and digitalis,—according as the symptoms are urgent, and as the case partakes most of the *tonic* or *atonic* form.—B.

To take off congestion or irritation from the hepatic system, by the use of purgatives, but especially by the employment of mercury so as to empty that organ, and to restore its free secretion and excretion.—C. To aid these (A and B) by the use of,—diaphoretics,—diuretics,—electricity? &c. &c.—Directions for the management of these means respectively.

643. Consideration of the proposal to evacuate the effused fluid by puncture; and the necessary fatality of it demonstrated.

Of Dyspepsia, or Indigestion.

644. SYN. Bradypepsia,—Diaphora,—Apepsia.

645. Vast importance of the stomach as—the laboratory of health,—the great center of sympathy,—and the copious source of multiform disease.

646. Short sketch of the functions of the stomach in its healthy state,—with reference to the Lectures on Physiology for a fuller exposition.—Periodical recurrence of appetite or hunger differently accounted for;—is probably a compound sensation.—Processes which the food successively undergoes—of mastication and deglutition;—solution and conversion in the stomach; extrusion thence in the form of chyme;—junction with the bile and pancreatic liquor;—formation of chyle, and its absorption by the lacteals.—General remarks on the best established theory of digestion;—on the qualities of the gastric liquor,—the appropriate food of different classes of animals,—the omnivorous nature of Man,—the influence of habit with respect to food,—and the remarkable cravings and antipathies of individuals.

647. GENERAL CHARACTER. Irregular, but com-

monly deficient appetite; — occasional craving, without relish in satisfying it; — aepsia, loathing; — nausea, and sometimes vomiting; — sense of load and distension after meals, followed by eructations of air, &c. — acid, nidorous, pungent, or insipid. — Mouth and fauces generally dry, and tongue white, or yellow. — Bowels generally irregular, oftenest costive, sometimes lax, or each by turns.

648. The above symptoms, accompanied with a host of others termed *nervous*, infinitely varied in individuals, and often more distressing than the primary ones; *e. gr.* headache, — flying pains, — noise in the ears, — giddiness, temporary absence of mind, — impaired memory; — unrefreshing sleep, — terrific dreams, — unusual timidity, — despondency of mind; — in a word, with all the train of complaints marking Hysteria and Hypochondriasis, as they appear in their respective constitutions.

649. Remarks on several of the symptoms (647), and on the exterior marks of constitution or habit of those persons in whom particular ones more especially occur.

650. PREDISPOSING CAUSE; — original constitution; — sometimes apparent only in defective function of the stomach itself, at others evidently connected with want of tone and vigour of the body at large.

651. EXCITING CAUSES; — these divisible into *two* kinds, viz. — A. such as operate directly on the stomach, — and — B. such as affect it through the medium of the general system. — A. Want of due mastication, and commixture of food with the saliva; — proofs and illustration of this, and remarks on the antizymic property of the saliva — Food either in itself difficult of digestion, or so with respect to the individual; — over-distension of

stomach from excess in the quantity of food or drink ;—compression of the stomach from posture, &c. —violent exercise or succussion of the body after a full meal,—illustrated by ingenious experiment of professor Harwood of Cambridge :—abuse of acid and acescent articles of food,—and of stimulating condiments, or spiritous liquors :—frequent and copious use of warm diluents :—certain articles of the narcotic kind, *e. gr.* Tobacco,—Tea,—Opium,—Bitters, &c.——B. Sedentary inactive life ;—cold damp atmosphere ;—grief, anxiety, and other passions and affections of the mind ;—intense application to study or business ; *Venus immodica*.—Examples of the effects of these several agents (651-2) in individuals, in particular occupations, and in certain classes of men.

652. The stomach, from its extensive sympathy, often a partaker of morbid irritation communicated from other organs ; when it frequently displays symptoms so violent, and apparently so confined to itself, as to make the primary and proper source be altogether overlooked.—Instances of this, in the successful treatment of seemingly idiopathic dyspepsia, by remedies which manifestly and chiefly operate upon other organs, and exert little or no immediate beneficial influence upon the stomach.

653. PROXIMATE CAUSE OF IDIOPATHIC DYSPEPSIA. A deficiency in the quantity or quality of the gastric fluid, the consequence of impaired secretory function of the stomach, but probably commensurate with the state of its tone and vigour as a muscular organ.

654. TREATMENT. Importance of previously ascertaining whether the dyspepsia be constitutional or acquired,—whether idiopathic or symptomatic,—whe-

ther arising merely from errors in diet, or other extrinsic agents,—or owing to a morbid state of the stomach independently of these.

655. The principal indications are,—1st, To avoid, remove, or as far as may be, duly regulate those things enumerated as exciting causes (651).—2dly, To relieve urgent symptoms,—as cardialgia,—acidity,—costiveness, or purging,—and pain.—3dly, Improving the vigour of the stomach, and of the system at large.

656. Difficulty of accomplishing the *first* indication in many cases,—sometimes from the circumstances of the patient, but often from the force of inveterate habits.—Allowance necessary under certain restrictions, for custom and constitutional peculiarities in regard to articles of food.—General indications as to the proper *kind* of food,—drawn from the obvious prevailing state of the stomach, *e. gr.* acid,—nidorous,—pituitous;—and from the exterior character of the patient.—Regulation as to *quantity*;—abuse of the common precept of *eating little and often*, pointed out and explained.—Directions with regard to dilution, or the taking in of liquids.

657. Means of fulfilling the *second* indication.—Cardialgia the effect of opposite chemical qualities of the gastric contents, viz. septic,—acid,—rancid;—respectively relieved by—acids,—alkalies:—choice of the first,—vitriolic, nitrous, and muriatic acids,—native vegetable acids,—carbonic acid gas;—of the second,—natron, kali,—ammonia,—magnesia,—chalk,—lime water;—according to the circumstances of the case.—*Obviating costiveness*;—the milder cathartics most suitable; choice of these according to circumstances. Bile the natural tonic and laxative;—indication of increasing its quantity

when deficient, and correcting its quality when depraved,—how best fulfilled.

658. Why emptying the stomach by emetics seldom required; and why their frequent use injurious:—under what circumstances they may be employed,—and the kinds most proper.

659. Removal of pain obtained—sometimes by the means noticed above (657),—occasionally by aromatics and other stimulants,—most effectually by opiates:—choice and management of these respectively.

660. *Third indication* (655);—why often limited in this.—Tonic remedies;—why simple astringents but little tonic, —and why Cinchona less so here than aromatic or simple bitters. The *modus operandi* of simple bitters, and cautions requisite in their use (405).—Chalybeates not often serviceable, and why:—when indicated.—Directions for the choice, and combination of these remedies.

661. Of the kinds of exercise most suitable to dyspeptics;—of friction:—of amusement and relaxation of mind.—The temperature of the body variable in dyspepsia,—oftenest defective:—regulation of clothing.—Of bathing;—its frequent misapplication,—and directions for its use.

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662. Observations on a peculiar species of dyspepsia, the *Cardialgia sputatoria* of Linnæus,—the *Pyrosis* of Cullen,—in Scotland termed the *Water-brash*;—appropriate name *Gastrodynia sputatoria*.

663. CHARACTER. Sudden and violent attack of pain at the stomach, with copious discharge of colourless, insipid, and generally cold fluid, resembling saliva, from the mouth, fauces, and œsophagus.

664. Particularly frequent in certain countries;—remarks on the condition in life, food, &c. of those whom it chiefly affects.

665. Probable nature and cause of the disease.—Remedies most effectual in relieving the fit, and preventing its recurrence:—Opiates, — Ammonia, — Æther; — Tinct. Guaiaci, — Aqua Picis, — Stimulant plasters; — change of diet.

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666. *Scirrhus Pylorus* often mistaken for ordinary dyspepsia; and hepatic disease for both. Importance of an early discrimination between them,—and circumstances which will tend to this, in—the age, and exterior character of the patient,—the seat of the pain,—state of appetite,—sensations after eating,—vomiting of the food,—state of the bowels,—progressive increase of symptoms,—marasmus, &c.—

667. Observations on the remedies commonly employed:—Cicuta;—Mercury;—Opium;—Extr. Hyoscyami;—Blisters, Setons;—tepid bath.—Of the food most proper.

Of Jaundice.

668. SYN. *Ἰκτερός*, *Græc.*—Icterus;—Aurigo;—*Morbus Regius, vel arquatus, vel arcuatus, Lat.*—*Jau-nisse, Fr.*

669. CHARACTER. Yellowness taking place over the whole surface of the body,—but first and most conspicuously in the eyes, and roots of the nails;—urine thick, of a deep yellowish brown colour, and tingeing white substances immersed in it of a yellow hue;—bowels generally costive, but sometimes loose,—with clay-coloured, or unusually pale stools;—languor, lassi-

tude, drowsiness,—itching of the skin;—altered, and generally impaired, appetite.

670. Detailed description of the commencement and progress of the disease;—and variations occasionally observed in the state of the pulse, respiration, stomach, intestines, skin, &c. according to the constitution and previous health of the patient, and the nature of the exciting cause.

671. Distinction of Jaundice into—idiopathic and symptomatic;—into continued, and periodical or recurrent,—into febrile, and non-febrile;—into yellow, and black (*icterus*, and *melasicterus* of authors.)

672. EXCITING CAUSES. Compression of the biliary ducts, particularly the *ductus communis*,—by posture,—by advanced pregnancy;—by tumours of neighbouring parts; *e. gr.* steatomatous omentum,—scirrhous pancreas, &c.—partial inflammation, affecting the larger ducts,—scirrhous,—ossific deposit,—or tubercles in the liver;—inspissated bile;—biliary concretions:—lumbrici occupying the gall bladder.—Consideration of these, and of the circumstances necessary to ascertain, or at least render probable, the existence of one or other of them.—Strictures on the propriety of denominating species of the complaint, from causes which often cannot be ascertained during life.

673. Other remote causes sometimes adduced, but less evident in their operation, and more difficultly explained; *e. gr.* Spasm of the ducts,—passions of the mind, as anger, fear, grief, terror, surprize, &c.—injuries done to the brain;—suppression of menstrual, or hæmorrhoidal discharge;—drying up of habitual ulcers;

—metastasis of eruptions:—the bites of poisonous animals?.

674. Observations on the secretory and excretory function of the liver,—on the leading and characteristic symptoms of the disease,—and on the circumstances in which the several remote causes (672) concur in producing

675. THE PROXIMATE CAUSE, viz. a considerable or total obstruction to the passage of the bile into the duodenum, and a consequent absorption or regurgitation of it, into the circulating mass.

676. Examination of the cases and dissections adduced to support the opinion—that jaundice may occur without any obstruction to the free exit of the bile;—and solution of the difficulty upon principles consistent with each other, and illustrative of a comprehensive theory respecting the nature of the hepatic function, and its influence in various forms of disease.

677. Appearances on dissection; and inquiry into the change in the colour of objects.

678. THE PROGNOSIS must be formed upon a consideration of the age, constitution, and previous health of the patient,—the degree and continuance of the disease,—the cause giving rise to it,—the effects it has produced,—and its being simple, or complicated with other disorders.—Favourable circumstances,—youth and previous general health,—appetite and strength little impaired,—absence of fever, and of pain on pressure.—Unfavourable circumstances,—advanced life,—cachectic or scrophulous constitution,—pain and tenderness of the hepatic region,—symptomatic pyrexia,—hydropic tendency,—hæmorrhage, or ecchymoses.

679. TREATMENT. As the cure essentially consists in removing the obstruction to the free egress of the bile from the liver, the treatment will vary according to the nature of the cause giving rise to that (672):—the chief indications then will be—A. To lessen inflammatory action if present:—B. To alleviate pain, and to relax spasmodic constriction:—C. To evacuate inspissated bile, mucus, or biliary concretions, blocking up the ducts:—D. To remove scirrhus or other affections of the liver itself, or of contiguous parts:—E. To supply the want of bile in the alimentary canal,—and to assist in carrying off that which floats in the circulating mass:—lastly, F. To support the strength, until the obstruction be removed.

680. Means adapted to these indications respectively, with directions for their management:—A. Bloodletting, general and topical;—blisters;—tepid bath;—Antimonial, &c.:—B. Opiates—alone, or combined with Calomel and Antimonials, &c. — Electricity:—C. Emetics,—Cathartics;—kinds of these most proper:—D. Mercury,—Cicuta, &c.:—E. Bitters;—Antacids;—laxatives:—Diuretics and Diaphoretics:—F. Food easy of digestion, and suited to the general circumstances of the patient's constitution, and natural cravings.

681. Observations on the nature, formation, and variety of biliary concretions, or gall stones, illustrated by specimens, &c.;—and on the remedies that have been proposed for dissolving them while lodged in the gall-bladder, or ducts.—Remarks on certain articles recommended as possessing specific powers in the cure of Jaundice, viz. raw eggs;—combination of *Æther* and

Oil of Turpentine ;—Extr. Taraxici ;—Dec. Gram. Canini ;—Alkalies, supercarbonated and caustic.—Native vegetable acids, &c. &c.

Of Diabetes.

682. SYN.—*Dipsacus* ;—*Hydrops ad matulam* ;—*Polyuria* ;—*Chyluria* ;—*Cachexia urinaria* ? Origin and meaning of these terms respectively.

683. CHARACTER. Urine either having a saccharine quality,—being inordinate in quantity,—or both ;—accompanied with dry or parched skin,—unusual craving for food and drink,—wasting of the flesh and strength,—and hectic pyrexia.

684. Detail of symptoms which generally attend the rise and progress of the disorder,—and the considerable variations which occur in individual cases.—Division of the complaint into two *species*, or rather, perhaps, into two distinct *forms*, viz. the *D. insipidus*, and *D. mellitus*,—with their characteristic marks,—the train of symptoms by which they are respectively accompanied,—their comparative frequency,—and the difference in their result.—Names designative of each proposed,—*Polyuria debilitans*,—and *Melituria tabifica*.

685. Chronological sketch of the disease, as noticed by different authors,—with an account of the principal theories offered by eminent physicians respecting its particular nature and seat, viz. by Aretæus,—Dr. Mead,—Dr. Home,—Dr. Cullen,—Dr. Saunders,—Dr. Darwin,—Dr. Rutherford,—and Dr. Rollé.—Examination of these *seriatim* ; and reasons for concluding, that the *two forms* (684) of the disease, respectively depend upon

morbid states of different organs or functions.—Account of the appearances after death ;—and application of them to illustrate and confirm this conclusion.—Strictures on the nosological place assigned to Diabetes by Sauvages, and by Dr. Cullen.

686. PREDISPOSING CAUSE. Uncertainty respecting the precise nature of that state of the system which gives a tendency to the *Melituria tabifica* ; but probability of its being often original and constitutional,—and therefore occasionally hereditary :—several striking instances of this related.

687. EXCITING CAUSES. Various and opposite ones mentioned by authors,—agreeing only in the circumstance of their ultimately weakening the tone and vigour either of the system at large, or of particular organs, in persons already disposed to the disease,—*e. gr.* preceding complaints of the febrile kind, especially intermitting fevers ;—the excessive use of cold watery fluids,—or of articles acting particularly upon the renal secretion ;—falls, blows, strains, or other injuries inflicted on the loins, and thereby affecting the kidneys ;—torpid, or obstructed and sluggish state of the liver ;—&c.

688. PROXIMATE CAUSE—in *Polyuria debilitans* a state of the uropoeietic vessels analagous to that of the exhalents in dropsy, (.) ;—in *Melituria tabifica* a perverted condition of the digestive or assimilatory functions, whereby the food, instead of becoming duly *animalized*, is converted into a vegetable or saccharine matter not immediately fitted for the nourishment and support of the body.

689. DIAGNOSIS. This easy between Diabetes and any other disorder ; and only necessary between the

two forms of itself (684) :—marks denoting these respectively.

690. PROGNOSIS.—To be drawn from the form of the disease,—its duration,—and consequences,—together with a consideration of the remedies already employed, and the effects they have had:—but, generally speaking, rather favourable in *Polyuria debilitans*,—and the contrary in *Melituria tabifica*.—Account of the speedy and fatal way in which the disease has occasionally been observed to terminate, with the appearances on dissection.

691. THE TREATMENT.—Necessarily different, accordingly as the disease consists merely in augmented quantity, or in altered quality of the urine;—or if these are combined, to the proportion of the one to the other.—The chief indications then, will be—A. To increase or restore the perspiratory function, and thereby lessen the unusual determination to the kidneys,—by Diaphoretics,—the tepid bath;—friction with oil;—exercise;—warm clothing;—change of climate, &c.—B. To correct the peculiar morbid state of the chylopoietic or sanguific functions, which occasions the saccharine quality of the urine,—by removing such obviously diseased action as may be detected in any of the organs concerned in this process, whether the kidneys,—stomach,—liver,—lungs, &c.—C. To lessen or prevent the formation of such saccharine matter, by abridging the use of vegetables, or confining the patient almost entirely to animal diet,—aided by medicines which seem the most remote from any thing like a vegetable acedent or saccharine quality,—*e. gr.* Sulphur,—Sulphurated Kali,—Hepaticized Ammonia, &c.—D. To restore the body at large to its pristine vigour,—by various tonic

remedies, as Cinchona,—Bitters,—Chalybeates,—Cold bath,—&c.

692. Remarks on particular remedies recommended in diabetes, with testimonies for and against them ;—the principles on which their utility may be explained, and the forms of the disease to which they would appear especially adapted,—Alum in various forms,—Catechu,—Uva Ursi ;—Rhubarb ;—Tinct. Cantharidis,—Blisters, and other stimulant applications to the loins ;—tight belt ;—issues and setons ;—Aqua Calcis ;—Sulphur, and its combination with alkalis :—Acidum Citricum Natro Muriato ;—&c. &c.

Urinary Concretions.

693. SYN. *Lithiasis*, Vog. et Macbr.—*Calculus urinarius* auctorum :—Anglicè *Gravel* and *Stone*.

694. Difficulty of giving any short and precise character to this disease, from the difference in situation, structure, and sympathy of the organs affected ;—from the variety, both in number and degree, of the symptoms ;—from many which are thought characteristic, being found to arise from other causes ;—and from calculi being discovered after death in the kidneys and bladder of persons who had never made any particular complaint indicative of their presence.

695. Usual symptoms of Calculus, or of the *lithopoeitic process* in the kidney ;—pain in the region of the kidney, increased on motion ;—sometimes violent pain referred to the stomach, with nausea and vomiting ;—at others, dull pain stretching along the ureter, with numbness of the thigh, and retraction or pain of the testicle on that side ;—urine variable, sometimes pale and

copious,—oftener high coloured and scanty, and depositing a lateritious sediment, minute red crystals, pus, or blood :—occasionally with pyrexia.

696. Cystic Calculus commonly marked by frequent, difficult, and painful discharge, sometimes with sudden suppression, and sometimes with constant stillicidium, of urine :—dull pain and sense of weight affecting the perinæum, urethra, and rectum ;—itching or dull pain of the glans penis :—Urine as in par. 695 or loaded with mucus.

697. DIAGNOSIS. Circumstances serving to distinguish lithiasis from the symptoms occasioned by lumbago,—stricture of the Urethra, —enlarged prostate, —thickened bladder, &c.

698. CAUSES : —PREDISPOSING, —a constitutional disposition strikingly prevalent in individuals,—often obviously hereditary,—and frequently connected with Gout :—*Exciting* ;—whatever tends either directly or indirectly to weaken the tone of the urinary organs, *ex. gr.* inflammatory irritation, whether arising spontaneously under general fever,—from cold applied to the loins and pelvis,—from gouty or rheumatic metastasis,—from mechanical injury, as blows, falls, strains, hard riding, &c.—or from articles specifically affecting the urinary passages, as Catharides, Turpentine, &c.—the excessive use of neutral saline diuretics ;—the use of hard water.—Long confinement to a recumbent posture ;—too long retention of urine ;—Sedentary inactive life ;—Indigestion ; — Foreign bodies introduced into the bladder.—Why women less subject to urinary calculi, especially of the bladder, than men.

699. Account of the prodigious size, or great number of stones recorded;—the singular articles occasionally forming their nucleus;—the difference in their shape, colour, texture, &c.—and the variation observable in the same calculus during its increase;—illustrated by specimens.

700. Chemical examination of urinary concretions;—the variety in the kind, and proportion, of their component parts, connected with their external character, the symptoms they excite, and the state of the urine,—explaining the efficacy of opposite anti-lithic remedies, and affording ground for their employment *a priori*.

701. Inquiry into the nature of the morbid state productive of urinary calculus,—its analogy to, and its frequent connection and alternation with Gout shewn; and reasons for believing, that they are only modifications of the same disease, as affecting organs differing in structure, functions, &c.

702. PROGNOSIS.—To be drawn from the age and constitution of the patient; the duration, degree, and form of the disease;—its effects upon the general system, or the particular parts;—the kind of remedies already employed, and their result.

703. TREATMENT. The plan will be *curative*, or *merely palliative*, according to circumstances. The general Indications are,—1. To mitigate urgent symptoms, as inflammation, pain, spasm, &c.—2d. To expel, dissolve, or otherwise remove concretions already formed;—3d. To correct that state of the system, or of the urinary organs, upon which the formation of calculi depends (701).

704. Means of fulfilling these indications respectively :
—1st. Bloodletting general or topical ;—warm bath ;—fomentations ;—laxatives ;—Digitalis ;—Opiates, alone or with Antimonial, —in glyster, &c.

705. 2d. Mild diuretics, —mucilaginous diluents ;—articles possessing a chemically solvent power on calculi *out* of the body, and concluded to exert a lithontriptic one *within* it, e. gr. caustic and mild alkalies, in different forms ;—Lime Water ;—Soap ;—Acids, particularly the Carbonic and Muriatic ;—Phosphoric Acid ?—Proposal of injecting solvents into the bladder, —and of performing Nephrotomy, considered. Account of modes proposed to remove calculi lodged in the urethra, without cutting.

706. 3d. Regulation of diet and regimen, adapted to the case ;—correcting morbid state of digestion (See DYSPEPSIA.)—Uva Ursi, and other astringents.—Turpentine and Balsams.

707. Remarks on particular articles ;—Greenfield's combination of Cantharides in substance and Camphor ;—Mrs. Stephens's solvent.—Chittick's nostrum, &c.

Of Asthma.

708. Derivation of the name.

709. GEN. CHARACTER : difficulty of breathing recurring at intervals, accompanied with sense of straitness and oppression in the chest, and sonorous respiration ; generally also with cough, at first short and difficult, but towards the end of the paroxysm more free, and often with copious expectoration of mucus.

710. Distinction between Dyspnœa, Orthopnœa, and

Asthma; and the appropriate application of these terms to different states and forms of difficult breathing pointed out.

711. Division of Asthma into *idiopathic*, and *symptomatic* (*A. hystericum*,—*hypochondriacum*,—*arthriticum*,—*exanthematicum*); and importance of this in a curative view.

712. Detail of symptoms which generally precede, accompany, and follow the paroxysm; and occasional variation of these, explaining the different forms it assumes, and accounting for the terms of *continued* and *periodic*,—*humid* and *dry*,—*catarrhal* and *spasmodic* asthma, given to it by authors.

713. CAUSES:—*Predisposing*—a peculiarity of constitution, especially with respect to the lungs, and this often hereditary:—*Exciting*,—irritation from various organic diseases of the lungs, heart, diaphragm, &c.;—*plethora*;—distension of stomach;—sudden refrigeration, especially from cold air when the body is overheated:—breathing very hot, or otherwise rarified air;—inhaling various kinds of dust, smoke, or acrid vapours;—*mephitic* gases;—*metallic* fumes;—certain conditions of the air, independent of temperature or moisture, operating differently upon different patients;—*exanthematic* metastasis, or suppression of customary discharges;—*passions* of the mind;—*particular* odours, &c.

714. Examination of the proximate cause of the Asthmatic paroxysm, as alleged by different writers; and investigation of its probable nature and seat, founded on a consideration of the symptoms, exciting causes, &c. and leading to a consistent plan of treatment.

715. DIAGNOSIS. Circumstances distinguishing Asth-

ma from Catarrh, Croup, Hydrothorax, and Angina pectoris; and from the difficulty of breathing which sometimes attends Hysteria, Hypochondriasis, Intermitting Fevers, &c. or is owing to foreign bodies accidentally getting into the trachea.

716. PROGNOSIS;—except where the constitution is unimpaired,—the disease recent,—not hereditary,—and arising from some metastasis,—generally unfavourable:—but often recurs with severity for many years, and seldomer proves fatal from the violence of the paroxysm, than from inducing hydrothorax, &c.

717. THE TREATMENT varies considerably according to the disease occurs in a plethoric or exsanguious habit,—as it is idiopathic or symptomatic (711),—catarrhal, or purely spasmodic (712). The general indications, however,—1st. To remove, as far as can be, such of the existing causes as may still continue to act,—2dly. To relieve urgent symptoms, whether arising from (*a.*) vascular repletion, (*b.*) from spasm, or (*c.*) from viscid phlegm, separately or conjointly:—3dly. To recal to its original and proper seat and form, any other disease, upon the disappearance or metastasis of which the asthmatic complaint had supervened;—or to compensate for it by exciting some analagous action or discharge:—4thly. To correct such cognizable morbid state of the system at large, or of any individual function, as appears to be connected with, and to aggravate, the asthmatic tendency.

718. Means of fulfilling these respectively:—1st. Obvious from par. 713:—2d.—*a.* general or topical blood-letting;—cautions respecting the former;—and doubts as to the utility of the latter;—*b.* Opium,—Æther,—

Ammonia,—Musk,—Camphor,—Cajeput Oil,—strong Coffee,—cold air and drink,—pediluvium,—Asafoetida, &c. :—*b.* and *c.* nauseating emetics, Ipecacuanha, Squills, Tobacco, Mustard;—Cathartics;—these either alone, or joined with Opiates, &c. and sometimes given in clyster. —3d. Sinapisms,—blisters,—hot bath,—Emmenagogues, —Diaphoretics, —Sulphur;—issues, setons: —4th.—Cinchona,—preparations of Zinc, Copper, &c. cold bathing,—Cicuta,—Digitalis,—Diuretics,—Acids;—suitable diet and—regimen.

719. Remarks upon particular remedies occasionally recommended; Oxygen gas;—Arsenic;—Quicksilver;—re-inoculation of the itch;—breathing Carbonic-Acid Gas, &c. &c.

Of Whooping Cough.

720. SYN. *Tussis convulsiva* of authors;—*Pertussis*, Cull.—*Anglice Kink* or *Whooping Cough*, improperly *Chincough*.

721. CHARACTER. Frequent and violent fits of coughing, consisting of many successive short expirations, followed by one deep and loud inspiration, and these quickly alternating for several times,—generally ending with the expectoration of very tough phlegm, often with sneezing, and frequently with vomiting;—evidently contagious;—usually epidemic;—affecting children more especially;—and occurring but once during life.

722. Mode in which the disease commences and proceeds; and variation of symptoms depending on constitution, habit of body, and preceding or casually accom-

panying complaints.—Division into the *catarrhal*, and *simply spasmodic* form.

723. Inquiry into the nature and chief seat of the disease; and arguments both from analogy and facts tending to shew, that it has a definite period of duration in its acute and contagious state.—Division of it into *two* stages, viz. the *specific*, and *habitual*; and the relative continuance of these,—explaining apparent difficulties, and directing to a consistent and successful plan of treatment.

724. CAUSES:—*Predisposing*—a constitutional susceptibility common to children, differing greatly in individuals, and rapidly diminishing by age:—*Exciting*—*A. of the disease*—the specific contagion, probably exhaled and inhaled with the breath;—*B. of the paroxysms*,—body exertion, as running, &c. distension of stomach,—indigestible food,—irritation of the lungs from smoke, &c.—passion of anger, crying.

725. DIAGNOSIS. — Difficulty of distinguishing Whooping Cough from Catarrh in the beginning; marks assisting to do this, where they are not combined.

726. PROGNOSIS. The disease especially fatal to infants,—to children born of phthisical or asthmatic parents,—and to those possessing general delicacy of frame, or reduced by preceding illness.—Unfortunate combination with Measles or Catarrh.—Epistaxis sometimes relieves; but is often a mark of severe disease, and when copious or frequent proves hurtful.—Sometimes terminates suddenly in convulsions and death; but the fatal event generally preceded by constant dyspnoea, livid co-

lour of the face, extremities &c.—Often brings on phthisis, and mesenteric obstruction; occasionally Jaundice:—common mode in which it probably acts.

727. Explanation of certain symptoms;—and appearance of the lungs in fatal cases.

728. TREATMENT. When symptoms mild, little interference necessary,—there being no antidote to the specific exciting cause. The general indications are,—throughout the complaint, but especially in the *first* stage (723) to mitigate urgent symptoms, whether (*a*) of the *catarrhal*,—or (*b*.) of the *spasmodic* kind (722);—(*a*.) by bloodletting, general or local, according to the degree of plethora, or of febrile irritation & dispnœa present;—by laxatives;—occasional nauseating emetics, and expectorants;—by blisters;—mild diaphoretics, &c.—Choice and management of these respectively.—In the *second* stage,—to break the habit of recurrence, by lessening general or local irritability, and giving tone to the system at large;—by Opiates,—Digitalis,—Cicuta,—Hyoscyamus?—Castor;—Musk, &c.—Cinchona;—preparations of Zinc;—Myrrh;—Chalybeates, &c.—stimulant and opiate frictions, &c. to the stomach and spine;—change of air.—Cold bath.

729. Remarks on certain remedies occasionally employed, and on their *modus operandi* when beneficial:—Dr. Burton's combination of Cinchona, Cantharides, and Camphor; and improvement on his *formula*.—Muscus pixidatus.—Roach's embrocation.—Moderate impression of fear.

Of Colic.

730. SYN. *Enterodynia*?—Derivation of the term

Colic: includes a number of painful abdominal affections, differing widely in their particular seat and causes, and agreeing only in their

731. GENERAL CHARACTER of—deep-seated pain, occupying especially the epigastric and umbilical regions, —generally attended with costiveness, and sometimes with vomiting.

732. Division into species, according to its nature, or to its real or alleged

733. EXCITING CAUSES;—*e. gr.* flatus (*C. flatulenta*,—*hysterica* ?);—accumulated fœces (*C. stercorea*,—*gravidarum*);—articles swallowed, and irritating the intestines from their indigestible nature, or their mechanical, chemical, or specific quality (*C. accidentalis*);—worms (*C. verminosa*) calculous or other concretions lodged in the colon (*C. calculosa*) or in the kidney (*C. nephritica*);—copious excretion of acrid bile (*C. biliosa*) gall-stones (*C. choletica*; See JAUNDICE);—retention of the meconium (*C. meconialis*);—acidity of the primæ viæ (*C. infantum*,—*dyspepticorum*);—metastasis of gout, rheumatism, &c. (*C. arthritica*, &c.)—dentition;—cold applied, especially to the feet (*C. phlogistica*)—scirrhus or other coarctation of the intestinal tube (*scirrhus rectum*, &c.);—application of lead in various modes (*C. pictonum*; *Dry Belly-ache* ?)—Periodical or Intermittent Colic.

734. Symptoms, &c. respectively denoting these several species.

735. PREDISPOSING CAUSE.—Constitutional or acquired irritability of the intestines, and especially of their muscular fibres.

736. PROXIMATE CAUSE.—Violent spasm affecting a portion of the intestinal canal, and preventing the ready descent of the fœculent or other contents.

736* The Prognosis must be drawn from the age, constitution, previous health of the patient, the con =

tinuance, repetition, and degree of the disease, and the known or probable causes giving rise to it; but above all, from the absence or presence of inflammation or fixed obstruction.—*Favourable symptoms*;—intermission of pain, or occasional change in its seat;—slow, or but little quickened pulse;—pressure being easily borne, or giving relief;—fœculent evacuations:—*Bad signs*;—Frequent retching;—obstinate costiveness;—tension of the abdomen, and pain on pressure;—pulse very frequent, small and hard;—hot dry skin, or partial clammy sweats;—dry brown tongue;—hiccup;—delirium.—Colic from lead often ends in tedious paralysis of the extremities, especially of the wrists. (See PALSY.)

737. TREATMENT. Although, as far as the disease is merely dependant on spasm, the plan of cure is simple and generally successful; yet, from the very different nature of the exciting causes (733), a minute investigation of the rise, progress, &c. of the attack, is of great utility in directing particular measures.—The chief indications are—1st. To prevent or remove inflammatory action;—2d. To relieve pain and spasm;—3d. To procure free and fœculent evacuations;—4th. To guard against a recurrence of the disease.

738. Means calculated to fulfil these several indications as respectively adapted to the particular species (733), degree, or stage of the complaint,—considered *seriatim*, under the heads of,—1st. Bloodletting, general or topical;—warm bath,—fomentations;—blisters;—2d. Aromatics;—Opiates by the mouth or anus;—3d. Cathartics,—*e. gr.* Magnesia Vitriolata,—Ol. Ricini,—Calomel, or the milder mercurial preparations,—Extr. Colocynth. Comp. &c. Rules for the choice and ma-

nagement of these ; and particularly with regard to the circumstances under which cathartics are proper, or even safe.

739. Remarks on particular remedies occasionally employed in Colic :—affusion of cold water to the lower extremities ;—glyster of tobacco smoke or infusion ;—turpentine clyster ;—Alum ;—Cuprum Vitriolatum ;—Petroleum Barbadoense, &c.

740. Means necessary to guard against future attacks ;—riding, sailing,—friction,—diet,—regimen,—clothing, &c.

Of Tetanus.

741. A general term, including *Trismus*, or Locked Jaw,—*Opisthotonos*,—*Emprosthotonos*,—and *Pleurosthotonos* : meaning of these respectively.

742. GEN. CHARACTER. Spastic rigidity of the voluntary muscles, especially of the jaw, neck, and trunk of the body, accompanied with violent pain, and with occasional convulsive exacerbations :—without primary fever or affection of the sensorium.

743. Detail of symptoms marking the commencement and progress of the disease under the different forms enumerated above, (par. 739) ; and comparative frequency of these forms.

744. PREDISPOSING CAUSES.—Perhaps an original and constitutional tendency to cramp or spasm ;—hot climate and season ;—a somewhat peculiar, but yet unascertained, in the soil, air, &c. of certain countries :—and in a general way, whatever weakens the tone, and increases the mobility of the muscular system.

745. EXCITING CAUSES. Sudden refrigeration, especially when the body is overheated and perspiring.—Local irritation, from wounds, bruises, &c. Acid or other saburra in the primæ viæ of infants.—Retrocedent or repelled gout ;—suppressed menses.—Preceding *Colica Pictonum*, or dry belly-ache.

746. Occasionally takes place as a symptomatic affection in tropical fevers ;—is sometimes also an anomalous form of hysteria, and an effect of certain narcotic poisons.

747. PROXIMATE CAUSE.—Investigation of the peculiar morbid state of the nervous system productive of tetanus, from a consideration of the predisposing and exciting causes ;—and its not being peculiar to man :—and inquiry how far it depends upon the brain, or upon the sentient extremities of the nerves ; with deductions from thence as to the treatment, compared with the result of experience.—Strong analogy in certain respects, and difference in others, between Tetanus and Hydrophobia ; with conclusions, as to the means to be employed in the latter.

748. DIAGNOSIS. Circumstances distinguishing incipient Tetanus from Rheumatic affection,—from Convulsion, Catalepsy, or anomalous symptomatic spasm.

749. PROGNOSIS,—to be drawn chiefly from the disease occurring in a warm climate, or in a temperate or cold one ;—its arising from general causes, or from local injury ;—the violence of the symptoms, and the length of time they have continued ;—together with the means already employed, and their effects.

750. TREATMENT :—this still vague and irregular, from the obscurity of the proximate cause, and from the

undecided superiority of any individual plan.—The general indications, however, are—1st. To remove such local irritation as appeared to excite the disease, and may still continue to act.—2d. To lessen the general irritability, and tendency to involuntary muscular contraction.—3d. To restore the tone of the nervous and muscular systems, and thereby guard against a relapse.

751. Means of fulfilling the 1st.—Cutting off the communication between the local source of irritation and the brain—(a.) by dividing the connecting nerves;—(b.) by destroying the diseased extremities of the nerves, with caustics, &c.—(c.) Inducing a temporary paralysis of them by sedative applications,—as Opium,—Lead?—Belladonna? &c.—(d.) Altering the peculiar nature of the irritation, by exciting a higher degree, or another kind of action in the part,—by Ol. Terebinthinæ,—Ol. Succini, —Cantharides,—Ammonia,—Mercurial preparations, &c.—Examples of success and of failure in the use of these respectively.

752. *Second indication.*—(a.) Venesection, to diminish general fulness and tension of the vascular system:—question how far it is either indicated or useful in those places where the disease is most common;—circumstances under which perhaps it may be had recourse to.—(b.) Opium internally;—instances of prodigious quantities taken without obvious benefit.—(c.) Warm bath;—contradictory evidence respecting it.—(d.) Cold bath;—strong testimonies in its favour,—instance of its proving suddenly fatal;—cautions which appear necessary in its use. Quick alternation of hot and cold bath.—(e.) Cinchona,—Wine, &c.—the prophylactic probably superior to the curative power of these.—Digitalis;—highly deserv-

ing attention, as well from its general sedative power, as from its good effect in other convulsive and spasmodic diseases.

753. *Third indication* fulfilled in part by *d* and *e* (752)—by change of climate, &c. friction,—exercise, &c.

754. Remarks on particular remedies occasionally recommended.—Electricity, Galvanism;—friction with oil;—Tinct Ferri Muriati;—Arnica,—Camphor,—Petroleum.—Cicuta, &c.

755. Account of the *Trismus nascentium*, or locked-jaw of new-born infants;—the countries and circumstances in which it more especially occurs;—the points in which these agree;—the several causes alledged;—and the treatment found most effectual in preventing or curing it:—leading to the important conclusion—that in every form of tetanic complaint, not only the alimentary canal, but certain organs *functionally* connected therewith, are a chief source either of primary or secondary irritation;—and explaining the superior utility of certain remedies, *e. gr.* Mercury,—Alcalies,—and Cathartics,—as acknowledged by writers of authority on the mere ground of experience.

Of Apoplexy.

756. Derivation and meaning of the term.

757. CHARACTER. Sudden and considerable diminution of sense and of voluntary motion, accompanied with sopor resembling deep sleep,—often with slow stertorous breathing, and generally with hemiplegia:—the motion of the heart and arteries continuing.

758. The attack usually preceded for some time by—occasional vertigo,—sense of fulness and pain in the

head,—noise in the ears,—stammering in speech,—numbness, involuntary agitation, and prickling sensation in the extremities, especially in one or other arm, with redness, and swelling of the veins;—flatulence and distension of the stomach and intestines;—dyspnœa;—great depression of spirits;—drowsiness, especially after eating;—disturbed sleep,—night mare, and terrific dreams;—flushing of the face and neck;—throbbing of the heart and temporal arteries;—temporary blindness, with appearance of sparks or flashes of light before the eyes.

759. PREDISPOSING CAUSES;—a peculiarity of constitution, frequently hereditary, but oftener connected with dark eyes and hair, short neck, and corpulent habit, than with an opposite description of person.—Advanced age;—sedentary life;—full diet, and habitual though inconsiderable excess in the use of wine and malt liquors;—stoppage of customary discharges, as Epistaxis, hæmorrhoidal or menstrual flux, &c.

760. EXCITING CAUSES—whatever, under a state of predisposition (759), either—determines an unusual quantity of blood to the head,—prevents a free return of it from thence,—or directly impairs the energy of the brain,—so as to produce—either simple congestion, or this followed by serous effusion, or by rupture of vessels and extravasation of blood.—Existence of these separately and conjointly, shewn from dissections;—with the symptoms respectively denoting the probability of their presence during life.

761. Individual Exciting Causes;—and explanation of the modes in which they respectively act;—fits of anger,—great heat,—intoxication,—violent muscular

efforts,—depending position of the head,—tight ligatures round the neck,—impeded respiration,—over-distension of stomach,—tumours pressing on the superior Cava, or descending Aorta;—narcotic poisons,—fumes of charcoal, &c.—peculiar state of atmosphere;—gouty metastasis,—concussion, or other mechanical injury of the brain.

762. Account of various morbid appearances found in the brain and its appendages after death; and doubts on the generally alledged agency of most of these in causing the disease.

763. Facts proving the intimate functional and sympathetic connection between the brain and liver; with new views of the cause and cure of the disease founded on these.

764. PROXIMATE CAUSE.—Compression and torpor (or the converse) of the brain,—and consequent defect of nervous influence in the organs of sense and motion.—Illustration of this from cases recorded by Boerhaave, Kirkland, &c.; and the universality of it shewn.

765. DIAGNOSIS. Circumstances distinguishing *idiopathic* Apoplexy from Lethargy,—from Epileptic Sopor,—from Hysterical Carus, and Catalepsy,—from Typhomania or febrile stupor,—from the symptomatic apoplexy caused by inebriation, narcotic poisons, mephitic vapours, general dropsy, ischuria vesicalis, hydrocephalus, &c.

766. Common division of apoplexy into the *sanguineous* and *serous*; and the different ideas attached to these terms by different authors. True grounds of the distinction; and utility of it in a curative view.

767. Apoplexy and Paralysis compared, and shewn often to differ rather in their extent and degree, than in their nature. Examination of Dr. Kirkland's opinion respecting the special seat of each.

768. PROGNOSIS—to be drawn from—the patient's age,—constitution,—habit of body,—and previous mode of life;—the exciting cause;—the degree of the disease,—its being a first attack—or a recurrence,—its being accompanied with, or free from, hemiplegia or convulsions.—Sometimes on a smart fever supervening, with delirium, and general diaphoresis, the Apoplexy is removed; but more frequently, pyrexia indicates local irritation in the brain, and fatal result.—Circumstances under which one or the other more especially happens.

769. The TREATMENT will chiefly consist in means calculated—1st. To remove the compression,—and 2d, to re-excite the energy of the brain;—*e. gr.* General or local bloodletting,—or both;—different modes of this,—and respective advantages of bleeding from the arm, from the jugular vein, or temporal artery,—or by means of leeches, cupping, &c.—with the *form* (766) of the disease to which each is especially suited, and the extent of the evacuation.—Regulation of temperature; application of cold to the head.—Position of the body.—Purg-ing; importance of this,—different modes in which it operates, and regulation of the quantity and *kind* (763) of the discharge, according to the circumstances and stage of the disease;—with the articles most proper under each, and the mode of using them.—Blisters to the head or its vicinity.—Diaphoretics,—choice of these.—Blisters or sinapisms to the feet.—Stimulants of the

diffusive kind, and not exerting any narcotic effect upon the brain,—*e. gr.* Ammonia,—Serum Sinapeos, &c.

770. Remarks on particular remedies sometimes recommended in Apoplexy,—*e. gr.* Sternutatories, Emetics, &c. and the circumstances under which they are proper or safe, pointed out.

771. Management after recovery as to diet, exercise, &c. to guard against a relapse.

772. The treatment of the hemiplegia or other paralytic state, so often accompanying, and remaining after, Apoplexy, properly falls under the next general head.

Of Paralysis.

773. Origin and meaning of the word.—SYN. *Resolutio nervorum*; CELS.—A general term comprehending various species of nerveo-muscular incapacity.

CHARACTER.—The motion of one or more of the voluntary organs or parts of the body, greatly diminished or entirely suspended,—often with impaired sense of feeling;—and independently of inflammation, or mechanical stiffness.

774. General view of the nervous functions as exercised by the brain,—by the nervous cords,—and by their sentient extremities respectively; and explanation of the forms of paralysis, whether of *motion*, of *sense*, or of both, founded on this.

775. Nosological division of Paralysis into species, as affecting half the body longitudinally (*Hemiplegia*)—transversely (*Paraplegia*),—or individual *parts* or muscles, as of the arms or legs (*Paresis*), the tongue, glottis, eye-lids, rectum, bladder, &c.—or,—as affecting par-

ticular organs of *sense*, as touch (*Anæsthesia*), vision (*Amaurosis*), smell (*Anosmia*), taste (*Agheusia*), hearing (*Dysecoia*), &c.—Comparative frequency, and occasional combination of these.

776. PREDISPOSING CAUSE; A peculiarity in the nervous system, not definable, but oftenest affecting the brain,—and then generally connected with Apoplectic tendency (757).

777. EXCITING CAUSES,—Whatever occasions lesion of substance,—compression,—or torpor of the nerves, whether at their source, in their progress, or at their terminations; as wounds,—contusions,—fractures,—pressure from tumours,—from partial congestion,—or from hæmorrhagic, suppurative, or watery effusion;—stoppage of customary discharges,—repulsion of eruptions,—gouty metastasis,—convulsions,—violent anger,—terror,—grief,—cold,—application of lead (*Colica Pictonum*,—)—Arsenic?—Quicksilver? &c. Belladonna:—Sympathetic influence of intestinal irritation;—long continued rheumatic pain:—Epidemic influence?—Various other causes inducing general debility in persons predisposed to paralysis.—Illustration of these respectively from histories and dissections; and the modes in which they severally appear to act.

778. Inquiry into the PROXIMATE CAUSE of Paralysis, as deducible from obvious morbid states of the brain or nerves discovered on examination after death; and difficulties still attending this, as well from the occasional absence of such perceptible states under paralysis,—as from the frequent presence of them where no paralysis had existed: General conclusion on this head.

779. Explanation why, in Paralysis depending on the brain, the cause is very universally found on the side *opposite* to the paralytic affection:—exceptions to this.—Extensive field still open to Anatomical investigation on this subject; and great importance of it shewn, as the only means of ascertaining not only the morbid influence, but likewise the natural functions of the several parts of the brain.

780. The DIAGNOSIS between Paralysis, and loss of voluntary motion from mechanical stiffness, or muscular inflammation, generally obvious; but these sometimes combined.—Paralysis also, occasionally attended with violent pain, rheumatic swelling, and spasms or tremor of the affected parts.—Essential distinction between temporary or periodic, and continued paralysis.

781. PROGNOSIS. This very different according to the form (775),—the degree,—and the cause of the affection; but generally unfavourable in hemiplegia, especially in elderly, debilitated, or intemperate persons. *Bad signs*,—gradual loss of feeling, coldness and wasting of the parts. — *Good signs*,—prickling sensation,—flushing heat,—spasmodic twitching,—rheumatic and inflammatory swelling supervening.—Hemiplegia sometimes removed by spontaneous Epistaxis, or hæmorrhoidal flux:—common explanation of the latter objected to, and another proposed.

782. The TREATMENT necessarily various, not only accordingly as the morbid state exists—*a.* in the brain, —*b.* in the nervous cords,—or *c.* in the sentient extremities;—but also as its exciting cause (777) may be fixed or removable,—or its proximate cause consist in

change of structure, or merely in suspended function :— whence the importance of previously investigating these points. The general indications then will be—1st. To remove any cause of compression still operating, whether from vascular turgescence, extravasation, effusion, tumour, &c.—2dly. To gradually re-excite the torpid portion of the brain or nerves to a sensible and active state.

783. Means adapted to these respectively ; topical bleeding,—blisters,—setons,—issues :—remedies tending to equalise the distribution of the blood, and promote absorption, *e. gr.* mild diaphoretics ;—gentle diffusive stimulants,—as Aq. Ammoniaë Acetataë,—Ammonia ppta.—Semen Sinapeos,—Infus. Raph. rust.—Bals. Peruvianum,—Ol. Terebinth, &c. External heat by—tepid bathing, *laconicum*.—Electricity.—Stimulating the superficial nerves by warm plasters, cantharides, *urticatio* ?—Linimentum Ammoniaë,—*Epithema Terebinthinæ*,—*Ung. Acidi Vitriolici*,—*et Linim. Sinapeos Ph. Nos. Guy.*—Friction ;—Regulation of exercise, of diet, and clothing.—Change of climate.—Cold bath.—Tonics.

784. Adaptation of these remedies to the particular seat and degree of the disease (775) as well as to the nature and operation of the ascertained or probable exciting cause (777), pointed out in the principal forms of the disease, *e. gr.* *cerebral*,—*chordal*,—and *extremital*, either separately or conjointly.—Strictures on the common, early, indiscriminate, and often pernicious employment of powerful stimulants, whether local or general, and directions for their management.

785. Observations on the use of Emetics,—Opium,

—Arnica,—Rhus Toxicodendron, &c. strongly recommended by some ;—with an account of the success attending the gentle and repeated operation of particular cathartics.

Of Epilepsy.

786. Etymology of the term.—SYN. *Morbus sacer, comitialis, fonticus*, &c. meaning and origin of these names.—Anglicè *Falling Sickness*.

787. CHARACTER Sudden privation of sense, accompanied with unusual motions,—generally with violent convulsion of all the voluntary muscles, and frothing at the mouth, followed by drowsiness or sopor, great fatigue, and entire oblivion of the fit :—recurring at various intervals,—and often attacking during sleep.

788. Variety which takes place in the disease in different cases, and even in the same at different times,—with respect to the degree and frequency of the paroxysm,—to its coming on without warning, or being preceded by certain sensations referred to the head itself, or to distant parts (*Aura epileptica*),—and lastly, to its effects upon the faculties of the mind and body,—illustrated by cases.

789. PREDISPOSING CAUSE.—A peculiarity of condition with respect to the brain,—and probably also to the Nervous System in general ;—perhaps always more or less connected with original conformation, and, therefore, often hereditary.—Male sex ?

790. EXCITING CAUSES—Whatever, under epileptic tendency, either impairs the tone and vigour of the Nervous System in general, and of the brain more par-

ticularly,—or communicates any mechanical shock, or any very violent and unusual impressions to the sensorium,—as blows, falls, or other external injuries;—exostoses, tumours, abscesses, or ossific deposit, within the brain or on its containing parts;—similar causes affecting the nervous cords, or their sentient extremities, e. gr. parturition,—dentition,—worms in the alimentary canal, &c.—Mercurial and Arsenical irritation?—Tickling,—Venereal orgasm;—Sudden terror,—violent passion,—intense study.—Whatever disturbs the due balance of the circulation, whether by occasioning excess or defect of blood in the head; as inebriation,—narcotic poisons;—spontaneous plethora, or the stoppage of customary discharges, whether of blood or other fluids;—inanition:—nervous irritation in the eruptive stage of Small Pox, &c.—Artificial repression, or spontaneous metastasis of various eruptive and other diseases, both acute and chronic.—Imitative propensity, particularly conspicuous in children and in women.—Modes in which these may respectively be presumed to act.

791. PROXIMATE CAUSE. The nature of this extremely obscure, perhaps inscrutable,—not only as consisting in a diseased action of organs, with the natural and healthy operations of which we are little acquainted,—but as being, in different cases, connected with opposite external conditions of the body, and removed by means tending to correct these respectively. Attempt to elucidate this point, by a consideration of the nice balance of functions necessary to general health; and the different effects that ultimately result from inequality in their degree, or from derangement in the order of their succession, according to the original disposi-

tion, or the acquired tendency of the human system.—Explanation both of the periodic and accidental recurrence of Epilepsy upon this principle.

792. Enquiry into the nature of the *Aura Epileptica*;—and enumeration of circumstances tending to shew, that this sensation may arise from primary irritation of the brain, giving a false reflex feeling of impression made upon distant parts. Importance of determining this point, as occasionally necessary to direct certain measures in the treatment, where such sensation occurs.

793. DIAGNOSIS. Remarks on the distinction made by Sauvages between *Epilepsia* and *Eclampsia*, and by Dr. Cullen between *Epilepsy* and *Convulsion*; and doubts of its validity.—Circumstances serving to discriminate genuine Epilepsy from Hysteric Convulsion (*Eclampsia Hysterica*, Sauv.); and from the feigned Epilepsy of mendicant impostors.

794. Strictures on the numerous nosological subdivisions of Epilepsy, as arising from individual exciting causes ascertainable only by dissection; and arrangement of it in a practical and curative view, under a few general heads, *viz.* as proceeding primarily from the brain (*Ep. idiopathica, spontanea, cerebialis*); from remote irritation (*Ep. symptomatica, verminosa, calculosa, parturientium, &c.*);—from the effect of certain poisonous matters operating upon the Nervous System, (*Ep. accidentalis, venenosa, febricosa, &c.*);—from misplaced or metastatic morbid action, in various constitutional diseases liable to that kind of aberration. (*Ep. exanthematica, &c.*) from propensity to imitation. (*Ep. sympathica.*)

795. **PROGNOSIS**,—To be drawn from the age, constitution, and habit of the patient;—from the disease being spontaneous, symptomatic, or accidental (794);—from the degree,—the frequency,—and the habit of its recurrence;—from its duration,—the effects it has produced,—and its being accompanied by, or alternating with, other complaints, &c. Always unfavourable where hereditary,—where with a particular shape of the head,—where it has impaired the memory or judgment,—has arisen from any violent shock, whether mechanical or mental—or has passed over the period of puberty without being suspended.—Has sometimes been removed by intermitting and other fevers, or by eruptions on the skin:—Often induces fatuity,—occasionally mania,—and now and then terminates in Apoplexy, Paralysis, or Hydrocephalus.

796. **TREATMENT**. But little can be done during the fit when violent, except restraining the patients from injuring themselves; best modes of this.—In the intervals, the plan must be conducted upon the general principles laid down in par. 791.—A. Of lessening or removing the particular Exciting Cause (790), if any such exist;—B. Of correcting the obviously morbid state of the body in general, or of particular organs,—whether consisting in plethora, or inanition,—in irritability,—in torpor,—or in cachexia:—C. Of disconnecting the already associated impressions and actions, by changing the previous habits and mode of life, to opposite and more natural ones.

797. Means of fulfilling—A, (as far as practicable), deduced from par. 790—with instances of their success.

798. B. Blood letting general and topical; various modes of, and their advantages respectively under certain

circumstances :—Issues, Setons, Blisters.—Generous diet.—Various metallic and other tonic, sedative, and antispasmodic remedies; *e. gr.* preparations of Zinc, Copper, Silver, and Iron;—Cold bath, exercise, friction :—Opium, Hyoscyamus, Valerian, Digitalis, &c.—Milk and Vegetable Diet ;—or continued slow course of Alterative remedies directed by the particular kind of Cachexy present.—Recalling certain eruptions or excretions that had disappeared.

799. c. Examples and authorities on this head, corroborating the principle laid down in par. 791.

800. Observation upon certain *reputed* specifics, Viz. Agaricus muscarius,—Viscus Quernus or Misseltoe,—Orange-tree leaves,—Cinnabar, &c. &c.

801. Of the beneficial effects arising from the moderate impression of fear in the Sympathetic or Imitative Epilepsy,—illustrated by remarkable examples.

OF CHOREA.

802. SYN. *Scelotyrbe* of Galen, &c.—*Chorea* of the moderns ;—*Anglice*, St. Vitus's dance.—Origin of these terms respectively.

803. CHARACTER. Irregular, involuntary, and ludicrous motion of the voluntary muscles, generally affecting one or other side more especially ;—without pain,—or obvious bodily complaint ; occurring in both sexes, and chiefly between ten and fourteen years of age.

804. Account of the manner in which the disease usually commences,—the variety and degree of the symptoms,—and the period of its duration.

805. CAUSES;—*Predisposing*,—a peculiar condition of the brain, generally connected with irritable and delicate frame of body and mind;—*Exciting*—whatever weakens the system, or induces morbid irritation; as fevers,—rheumatism,—terror,—worms or saburra in the alimentary canal,—retrocession of eruptions, &c.

806. PROXIMATE CAUSE—extremely obscure; but evidently connected with muscular mobility, and defective power of volition.

807. DIAGNOSIS easy between Chorea and other spasmodic diseases occurring during adolescence; but sometimes confounded with slight hemiplegia in adults; and is occasionally a symptom of hysteria in grown women.—Account of some curious epidemic disorders resembling Chorea, which have prevailed in certain countries from the influence of superstition and fanaticism.—Description of the *Chorea simulata*, or *Tarantism* of Italy.

808. PROGNOSIS.—Chorea, though sometimes obstinate, is often cured spontaneously; and seldom attended with any danger: but occasionally appears converted into epilepsy, paralysis, or maniacal delirium.

809. TREATMENT deducible from 806 is supported by general experience; and consists in—1st. Removing any morbid irritation present;—2d. Lessening the mobility of the nervous and muscular systems in general, by allaying the morbid, and exciting a natural degree and kind of action in them.

810. Means of fulfilling the 1st.—Blood-letting? Doubts respecting the existence of plethora in Chorea, and strictures on the practice of Sydenham.—Purging;—great benefit of this in most cases of Chorea; and

examination of the mode in which it acts, and the articles most effectual for the purpose. — Recalling eruptions or discharges that had been suppressed.

811. Means calculated for the 2d.—Opiates;—Digitalis;—Stimulants;—Electricity;—Tonics,—especially the preparations of Zinc,—Iron,—Copper,—Arsenic? Argentum Nitratum;—Cinchona,—Myrrh;—Cold bath;—friction,—muscular exertion, &c.

OF HYSTERIA.

812. Origin of the term *Hysteria*. SYN. *Metromania*;—Fr. *Vapeurs*;—Angl. *Fits of the mother*, *Hysterics*.

813. CHARACTER.—So great is the number, so varied the kind, and so rapid the change of symptoms in *Hysteria*, as to render a concise character extremely difficult; there being few diseases of the nervous class, which are not occasionally imitated by, or connected with, hysteric affection. The paroxysms, however, (which occur without any regularity) generally preceded by lassitude, coldness of feet, copious discharge of pale urine, pain in the head, loins, or stomach, and attended with borborygmi, globus hystericus, difficult breathing, feeling of strangulation, loss of sense, and violent convulsions, coma, or apparent syncope, &c. and often end in fits of alternate laughing and crying.

814. The paroxysm sometimes alternates with the loss of voice (*Aphonia hystERICA*), temporary paralysis (*Dysphagia*,—*Ischuria*, &c.)—Carus,—Catalepsy,—and various forms of mental derangement, *e. gr.* *Nymphomania*,—*Fatuity*, &c.

815. PREDISPOSING CAUSE,—a certain mobility of

the Nervous system, almost peculiar to females,—especially those of a sanguineous, plethoric, and irritable habit;—occurring chiefly between the age of 14 and 40 years,—and often obviously connected with some irregularity of the uterine function (812).—More frequent in cold than in hot climates: probable cause of this.

816. EXCITING CAUSES,—Indolent life,—luxury,—violent passions and emotions of the mind;—irritation in the alimentary canal;—suppressed, painful, or excessive menstruation;—disagreeable odours, sights, &c.—repression or metastasis of chronic eruptions;—intermittent fevers, &c

817. DIAGNOSIS—sometimes difficult, from the Proteiform nature of the complaint. Circumstances serving to distinguish it from Hypochondriasis,—from Epilepsy, &c.

818. PROGNOSIS.—Hysteria rarely fatal in its own form, unless the paroxysm be induced by some very violent cause;—and generally disappears in the decline of life.

819. The TREATMENT will necessarily differ very much, according to the form or degree of the complaint, the constitution, habit of body, and condition in life of the patient, &c. The indications are—1st. in the paroxysm, to check its violence:—2d. in the interval, to ascertain, and endeavour to lessen or remove, the predisposing and exciting causes.

820. The 1st may be done, in plethoric and robust habits, by blood-letting,—by nauseating emetics,—by the application of cold, by *Digitalis*;—in others, by Opiates,—by stimulant and antispasmodic remedies,

e. gr. Ammonia, — Aether, — Camphor, — Castor, — Musk, — Assafoetida, &c. warm baths, — pediluvium.

821. The means for effecting the 2d, will be directed by the presence of plethora, or of inanition, and a spare or full diet accordingly ; — by adverting to, and correcting, the morbid state of individual functions and organs, particularly of the Stomach, — Intestines, — Uterus, &c. ; — by regulating the exercise, clothing, mind, and amusements, — and sometimes, when practicable, changing the sexual condition of the patient : — by the use of various metallic and other tonic remedies, — cold bathing, &c. — to lessen irritability and improve general strength.

Of Hypochondriasis.

822. Derivation of the name. — SYN. Spleen, — Vapours, — Low spirits.

823. CHARACTER. Unusual anxiety, depression of spirits, and belief of present or dread of future evil, directed particularly to the state of health ; always accompanied with symptoms of indigestion, and other marks of bodily disorder ; and generally also with various, irregular, and often unaccountable sensations and affections, referred exclusively to the patient's imagination.

824. Detail of the more common and prominent symptoms, as they affect certain organs and functions, e. gr. those of the stomach, intestines, skin, kidneys, lungs, &c. ; — as they occur in persons of different temperaments, — conditions, — habits of life — and particular idiosyncracies ; — and as they assume, on the one hand, the variable, corporeal, and *hysterical* form, — or, on the

other, the more fixed, mental, and *melancholic* one:—with their respective degrees, duration, or recurrence.—Account of some of the more singular and absurd notions entertained by hypochondriacs, and the strange resolutions formed in consequence.

825. PREDISPOSING CAUSE. — A peculiarity of constitution with respect to the brain and nerves, generally original,—often hereditary,—and though not always distinguished by external character, yet obviously much more frequent in males than in females,—in advanced than in early life,—and in the melancholic than in the sanguineous temperament.

826. EXCITING CAUSES. Full diet, especially with regard to eating;—indolent inactive life;—intense study, or anxious pursuit of business;—cold, damp, and variable state of atmosphere, especially that succeeding the autumnal equinox;—intermitting and remitting fevers;—atonic, misplaced or retrecedent gout?—the stoppage of natural or customary discharges,—or the recession of certain cutaneous affections—depressing passions, *e. gr.* grief, anxiety, and fear, by whatever cause produced:—Change in the relative capacity of the arteries and veins, at a certain period of life.—Enquiry into the reason why this disease is more frequent in England than in any other country.

827. EXPLANATION of the circumstances in which these different causes would appear to concur in inducing

828. THE PROXIMATE CAUSE;—a sluggish and irregular action of the nervous and vascular systems in general, but more especially apparent in the functions of the alimentary canal, and in the sensorial operations

of the brain.—Account of the principal theories of the disease ;—and an inquiry into the nature and extensive influence of the *chylopocietic* process ;—the striking sympathy, both neuropathic and secretory, existing between the liver and brain ;—with conclusions drawn from thence,—supported by the concurring testimony of authors respecting certain facts noticed in the history of the disease from the earliest ages,—and corroborated by the superior success of a particular mode of treatment,—all tending to prove, that the proximate cause of Hypochondriasis, *in a curative view*, consists in a *sluggish and irregular state of the hepatic function*.

829. DIAGNOSIS. Difficulty of drawing a precise limit between Hypochondriasis on the one hand, and Dyspepsia, Hysteria, or Melancholia, on the other ;—not only from their having several symptoms in common, but from their being often combined together, and sometimes reciprocally passing into each other.—Marks serving to distinguish them, founded on a consideration of the patient's age,—sex,—temperament,—hereditary constitution,—and habits of life ;—the predominance of certain symptoms, as being local or general,—corporeal or mental ;—and the circumstances under which the case may have been formerly relieved, cured, or converted into some other form.

830. PROGNOSIS. This generally favourable in early life, especially in persons rather of the sanguineous temperament, and where the disease has clearly arisen from causes operating primarily upon the chylopocietic organs ;—but the contrary in advanced age,—in those who are of the melancholic temperament,—and where it has either been caused by, or become intimately

associated with, strong mental impressions.—Occasionally terminates in fixed Melancholia.—Has been frequently removed by other forms of disease supervening,—especially Fevers, Jaundice, Dropsy, &c.:—pathological conclusions deducible from this, and serving additionally to illustrate the nature of the proximate cause assigned (828).

831. TREATMENT. This must differ in different cases, and be directed more or less to the bodily or to the mental indisposition, accordingly as the one or the other is found to predominate. The principal indications, therefore, will be—1st. To ascertain, and endeavour to correct, the particular dyspeptic or other morbid state of the alimentary canal, and of the organs more immediately connected therewith.—2dly. To restore to its proper seat or form, any other complaint, upon the removal or spontaneous cessation of which the hypochondriacal affection had supervened.—3dly. To occupy the mind with naturally associated impressions of superior force; and thereby gradually weaken, and finally destroy, the morbid concatenation of ideas which had taken place.

832. For various means of *assisting* in the 1st, according to the particular symptoms present,—see DYSPESIA;—but these in general only of temporary use, unless the hepatic function be restored to its natural and healthy state: mode by which alone the degree of its morbid action can be known,—and the means by which this can most speedily and effectually be removed,—illustrated by cases.—Doubts about the propriety of giving opiates or bitters frequently or largely.

833. Means respectively adapted to recall preceding

gouty,—herpetic,—hæmorrhoidal, or other complaints, —with a view to fulfil the 2d indication.

834. Of the amusements, exercises, clothing, diet, and general regimen proper for constitutional hypochondriacs.

Of Insanity.

835. SYN. *Deliria* of Sauvages:—*Paranoïæ* of Vogel:—*Mentales* of Linnæus:—*Vesaniæ* of Sagar and Cullen. —Anglicé, *Madness*, *Lunacy*.

836. GEN. CH. False perceptions, or erroneous conclusions, continuing during the waking state, leading to various acts not natural and customary with the patient, often dangerous either to his own, or to others' personal safety; and not immediately depending on violent anger or intoxication,—or on fever, inflammation, or other morbid state speedily threatening life.

837. Short sketch of the mental faculties of *Perception*,—*Memory*,—*Judgment*,—and *Imagination*;—and the infinitely varied degrees, both positive and relative, in which these *naturally* exist, not only in individuals, but in whole families, tribes, and nations;—shewing the impossibility of drawing any universal and positive character of Insanity, or pronouncing it present, without minutely referring to what is generally admitted as common and proper in the patient's particular situation.

838. Arrangement of chronic mental disorder under the heads of Simple Imbecility (*Fatuitas*, *Amentia*),—desponding (*Melancholia*)—and furious insanity (*Mania furibunda*)—and subdivision of these, as being—constitutional, or accidental,—being simply mental, or

combined with disease of other organs neuropathically or functionally connected with the brain. External characters of person and mind, in which the one or the other form is more especially frequent; and symptoms by which they are usually distinguished. Doubts respecting the commonly alleged *generic* and permanent difference of these three forms, and especially of the two last; with examples of their various combinations, and frequent reciprocal conversion into each other.

839. PREDISPOSING CAUSE. A peculiar state of the brain with respect to intellectual susceptibility and volition,—generally original, and therefore often hereditary;—commonly, however, requiring for its development, not only a certain period of life, but the operation, in a greater or less degree, of various

840. EXCITING CAUSES; such as—long continued or powerful impressions on the mind, whether of the depressing or exciting kind, *e. gr.* hopeless love,—restrained sexual propensity,—disappointed ambition,—ungratified revenge;—intense study;—dread of poverty;—sudden elevation or reverse of fortune;—terrors of futurity from false religion:—*Venus solitaria*.—Habitual intoxication;—protracted or violent fevers, during which the sensorium had been considerably disturbed;—sudden change in the balance of nervous and vascular action after parturition:—Particular atmospheric influence, commonly referred to the lunar phases:—Syphilitic affection of the skull or its membranes; or mechanical violence done to the head, as fracture, fissure, depression, or simple concussion,—giving rise to chronic irritation:—retrocession of eruptive and other metastatic complaints;—Stoppage of na-

tural or customary discharges:—disordered state of the hepatic function.

841. Account of various morbid appearances found in the brain, and its appendages after death, *e. gr.* unusual hardness or softness of the brain,—thickening of its membranes;—tumours,—abscesses,—ossific deposition,—hydatids;—or—congestion, extravasation, or effusion of blood, of lymph, or of serum:—and doubts whether, in many cases, these may not be either merely accidental concomitants, or gradual *effects* rather than causes, of that morbid state of *function* upon which the mental derangement immediately depends.

842. PROXIMATE CAUSE. Reasons why the intrinsic nature of this, as consisting in a change of function of the brain, will perhaps ever remain unknown.—In a practical and curative view, however, it may be resolved into—*a.* mere excess or defect in the *degree*,—*b.* irregularity in the *order*,—or (what is most common) these two combined in various proportions.

843. DIAGNOSIS. The distinction of Insanity from febrile stupor or delirium,—from intoxication,—or from the effects of having swallowed certain narcotic poisons,—generally obvious from the history, duration, and symptoms of the complaint:—but the determining the *kind* and *degree* of insanity that requires legal or personal restraint, always a question of great importance, both in a public and private view; and therefore demands the utmost caution and deliberation. Mode of investigation in such cases; and examples illustrating its propriety.

844. PROGNOSIS. Where the disease is of long duration;—or of frequent and regular periodical recurrence,

—where arising chiefly or solely from mental impressions,—where accompanied with little bodily disease,—and above all, where hereditary or early constitutional tendency to be traced, the prognosis highly unfavourable;—and where fatuity succeeds either to Mania or Melancholia, generally hopeless:—but the contrary if the patient be young,—the disease recent,—and succeeding to, or accompanied by, obvious pyrexial symptoms.—Patients of the Sanguine Temperament more frequently and speedily cured than those of the Melancholic; and the variable state oftener than the uniform, whether of the desponding or violent kind.—Has been frequently suspended, and occasionally removed, by pregnancy,—by falls;—or by other disorders supervening, as Phthisis, Dropsy, Gout, by intermitting and continued, and especially by the specific Exanthematic fevers—by chronic eruptions,—particular discharges, &c. Short exposition of certain principles respecting the human system, upon which such metastatic changes or conversions would appear satisfactorily explicable:—with practical deductions from thence, applied to the mode of

845. TREATMENT;—this is either *corporeal* or *mental*,—but generally a mixture of the two, proportioned to the priority and degree of one or other state;—and hence important first to ascertain this point.—The leading indications in the former will be—A. To lessen vascular and nervous excitement, when in excess;—B. To increase them when defective;—or—C. To restore the balance of the system at large, but more especially of certain organs, the function of which is intimately connected with those of the brain.

846. Means of fulfilling A.—*a.* bloodletting general or topical: cautions respecting the former; and directions for the mode, extent, and repetition of the latter, as adapted to particular circumstances;—advantages occasionally following spontaneous hæmorrhage; and indications to be drawn from thence.—*b.* Purging:—brisk or slow,—common or specific;—principles upon which these respectively prove useful,—with the articles best suited to each purpose, and directions for their employment.—*c.* Digitalis;—examples of its power, and management necessary to obtain its good effects.—*d.* Cold:—question whether the general and continued abstraction of heat proper in any case.—Abstraction of heat from the head; generally admissible, and often highly beneficial;—different modes of it—clay cap,—wetted sponge, &c. &c.—*e.* Diet corresponding with the general Antiphlogistic plan.

847. Hazard of pushing Indication A too far; and necessity sometimes of changing it for the opposite indication B, or beginning with this.—Means suited to B—generous diet,—moderate allowance of wine or diluted spirituous liquors;—use of diffusive or permanent stimuli, as Aether,—Ammonia,—Cinchona,—Myrrh, Guaiacum;—Tonic and antacid laxatives;—Cold bathing;—exercise; friction, &c.

848. Proofs that *local* increase of vascular and nervous action, often occurs under a deficiency of *general* fulness and excitement; and requires a combination of the two indications A and B, modified according to the particular circumstances:—exemplified in the use of Emetics, —Diaphoretics; —Blisters; —Issues; —Hot or tepid

bath ;—Mercury, &c.—Recalling suppressed discharges, or renewing morbid action that had ceased when the mental derangement began, — *e. gr.* catamenial and hæmorrhoidal flux ;—herpes, psora, &c.

849. Of confinement and restraint as measures of security ; different modes of them.

850. Of the mental treatment ;—privation or indulgence, as punishment or reward. Necessity of impressing awe from conviction of superior power ; as well as of acquiring confidence by punctual discharge of promise,—and affection by mild and soothing treatment. Question, under what circumstances the patient's false notions are to be humoured, opposed,—or entirely neglected ; and instances of benefit from each.—Modes of counteracting capricious resolutions, by exciting sensations and motions incompatible with them, and which the patient cannot resist ;—*e. gr.* by nauseating or brisk Emetics,—by sudden alarm,—by rotatory motion, either horizontal or vertical :—&c.

851. Of the different means suited to arrest the patient's attention, induce a train of naturally associated ideas, and thereby weaken or entirely suspend the previous deranged combinations : Musical sounds ;—poetical and narrative reading or recitation ;—arithmetical or other computations ;—seeing and conversing with objects of affection ; indulgence in former exercise, amusement, or bodily and mental occupation.

852. Remarks on particular remedies which have been recommended in different forms of Insanity ; with an estimate of their recorded efficacy, and the cases to which they would appear especially adapted :—Helle-

bore, black and white ;—Submersion?—Camphor ;—
Vinegar ; — Hyoscyamus, — Aconite? Stramonium?
Belladonna?—Opium :—Pressure on the Carotids ;—
Trepan ;—Hard labour, &c.

853. General Recapitulation. Reasons why improvement in this branch of Medicine is accompanied with peculiar difficulties ; and means by which alone it can be obtained and diffused.

THE END.

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TO

WILLIAM SAUNDERS, M.D. F.R.S. &c.

Late,

AND TO

WILLIAM BABINGTON, M.D.

Present

SENIOR PHYSICIAN TO GUY'S HOSPITAL ;

The former,

THE ORIGINAL INSTITUTOR,

The latter,

THE ABLE AND STRENUOUS SUPPORTER,

OF

The Medical School

ATTACHED TO THAT MUNIFICENT FOUNDATION ;

This humble Attempt

To second their Wishes and Endeavours,

of rendering

The Course of MEDICAL EDUCATION in that School

complete in all its branches ;

Is inscribed,

As a small, but grateful acknowledgment

Of the many private as well as publick Obligations

Which they have conferred upon,

Their faithful Friend and Servant,

THE AUTHOR.

TO

WILLIAM SAUNDERS, M.D. F.R.S. &c.

AND

AND TO

WILLIAM BABINGTON, M.D.

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WHICH THEY HAVE CONTRIBUED

THEIR FAITHFUL FRIENDS AND SUPPORTERS

THE AUTHOR

GENERAL OUTLINE.

THE Course (which consists of Seventy Lectures) is divided into *three* parts.—In the *first* part, or that which comprehends PATHOLOGY, a general view is taken of the *nature* of those *Morbid conditions* that most frequently occur in the human body ;—the *Causes*, whether *pre-disposing* or *exciting*, which give rise to them ;—the *Signs* or *Symptoms* by which they are known ;—and the *functions* or *parts* in which they more especially take place :—and from a comparison of these with the *natural* and *healthy* state, are drawn, the several *Indications* which require to be fulfilled in order to effect a cure.

In the *second* or THERAPEUTIC part, are given—
an account of the Discovery of remedies,—and the different methods that have been had recourse to for ascertaining their Powers and Virtues :—the various Means employed in the PRACTICE of MEDICINE, are arranged in *Classes* corresponding with the principal Indications of Cure, e. gr. into Astringents,—Tonics,—Stimulants,—Sedatives, &c. ;—the *modus operandi* of each Class is enquired into, — and general rules given for their proper administration.

The *third* part comprehends the MATERIA MEDICA, or history of Individual Articles ;—for the mode of treating which see LXI.

HEADS.

PART I.

OF PATHOLOGY.

Neque curari id quod ægrum est ab eo, qui quid sit ignoret. CELSUS.

Ex Pathologia, Usus et Ars medendi, novaque plurima Remedia inveniendi occasiones, occurrunt. HARVEY De Mot. Cord.

I. INTRODUCTORY LECTURE — pointing out the nature and extent of the Course,—illustrating these by a comparison of the Practice according to certain modern hypothetical doctrines,—and that established upon the ground of *Scientific Principles* joined with *real Experience* ; —and, lastly, giving some necessary instructions with respect to *the best plan of study*.

II. Division of the human functions into *Vital*,—*Natural*,—and *Animal*.—Definition of *Disease*, and of a *Remedy*.—Difference between *Theory* and *Hypothesis* :—the one shewn to be necessary and useful,—the other unnecessary and pernicious.

III. What is meant by the *SIMPLE SOLID*.—The labours of Boerhaave and of Gaubius, upon the *composition* of the *Simple Fibre*, shewn to be hypothetical ;—and the view of the human body as an *Animated Machine*, alone of any use.—Of *Nervous Matter* in general :—its extent and influence apparently much greater than

hitherto supposed:—comparison of it in Man and in certain imperfect animals,—as diffused over the body,—and as accumulated in particular parts for special purposes.—Of SUSCEPTIBILITY as an universal and characteristic property of Nervous Matter:—and of *specific susceptibility*, or that depending upon a peculiar organization or structure of the Nerves of certain parts:—with strictures on the doctrine which resolves all impressions into difference in *degree* only,

IV. Of the SENSORIUM,—and of PERCEPTION.—Of *Voluntary* and *Involuntary Motion*.—Enquiry into the nature and general laws of *Nervous Influence*, and the functions of the Brain:—with a view to elucidate their operations and affections under disease.—Question whether Sensitivity and Contractility be inherent in the Muscular Fibre (the *Vis insita* of Haller) or whether imparted to them from the brain.

V. Distinction between *Sensibility* and *Irritability* as species of SENSITIVITY, pointed out:—their morbid states, as consisting either in *excess*—or in *defect* (*Torpor*), illustrated by examples:—the constitution and habits in which they most frequently occur,—the causes giving rise to them,—and the means to be employed for their removal.

VI. Of *rigidity*,—*elasticity*,—and *contractility*, as properties attached to certain kinds of Animal Matter.—Of the Muscular Fibre;—and of its healthy tension, or *tone*, opposed to *flaccidity* and to *Spasm*:—causes productive of these several states, considered both in a *pathological* and *curative* view.—Of the *tone* of the Alimentary Canal more particularly,—and its extensive influence.

VII. Of SYMPATHY.—division into —*natural*, —

peternatural,—and, *morbid*.—Subdivision into—*similar*,—and *dissimilar*;—*remote*, and *contiguous*;—*local*, and *general*.—Examples of each of these, and of their combinations.—Sympathies seldom reciprocal or reversed.—Sympathy greatest in early life;—probable reason of this.—Stomach the grand centre of Sympathy.—Of Sympathy between different persons:—imitation a consequence of this.—Application of the laws of Sympathy to explain a variety of phenomena both in health and disease,—illustrated by examples.

VIII. Of CUSTOM and HABIT;—their influence in producing certain periodical movements in the System;—and the necessity of sometimes indulging established habits, though of themselves improper, in order to effect a cure.

IX. Of the FLUIDS.—Difference in proportion between them and the SOLIDS, occasioning various degrees of *Plethora* and of *Inanition*.—Of the Species of *Plethora*, e. gr.—*plethora ad molem*,—*ad vires*,—*ad spatium*;—with strictures on these distinctions.—Causes inducing *plethora*;—effects of it in different constitutions, and at different periods of life:—Means of counteracting it.—Of CONGESTION, or accumulation of blood in particular organs or parts;—the diseases which it accompanies or gives rise to; and the means proper for its removal.—Of INANITION,—its causes,—and the treatment required in it.

X. Of the HUMORAL PATHOLOGY. — Question respecting certain changes in the *fluids* being the primary source of various diseases,—considered in Scurvy, &c.—Analysis of the Blood shewn to be still imperfect.—Varieties in the appearance, texture, &c. of the blood under

particular kinds of disease, as affording a test of strength or weakness, &c. and an Indication of cure.—Of the general septic *tendency* of the fluids.—Of particular kinds of Acrimony, *chemical* or *specific*, supposed to take place in the mass of blood, or in particular secretions; and the application of this to explain the phenomena of certain diseases, and the effects of certain remedies:—with strictures on various points of the general doctrine.

XI. Of TEMPERAMENTS.—Origin of them among the ancients.—Chief species,—*Sanguineous*,—*Melancholic*,—*Choleric*,—and *Phlegmatic*:—Nervous Temperament?—Marks distinguishing these:—the diseases to which they are respectively most liable,—and the general treatment more especially required in each temperament.

XII. Of IDIOSYNCRASY, or peculiarity of constitution not denoted by any external character:—Singular instances of this:—and importance of ascertaining the existence of idiosyncrasy with respect to medicines more especially.

XIII. Of HEREDITARY DISEASES, or hereditary *morbid tendencies*:—Strictures on the cavilling objections made by some against the existence of such;—and advantage which will accrue to the patient, as well as credit to the practitioner, from a due attention to them.

XIV. Of the CONSTITUTION.—Vague meaning of the term in common acceptance:—what ought properly to be understood by it.—Of the changes which the Constitution undergoes at certain periods of life;—and of the diseases to which these periods are respectively most liable.

XV. Of DIATHESIS, or General State of the System, as distinguished from Constitution and Tempera-

ment:—division of it into certain principal *kinds*,—with the characteristic marks of each.

XVI. Of the *VIS MEDICATRIX NATURÆ*.—Proofs of its existence;—and opposite errors into which implicit reliance upon, or total disbelief and disregard of it, have respectively led.—Different modes in which the V.M. N. exerts itself in the counteracting or removing disease. Disorders in which it shows little or no power.

XVII. Of *POWER* and *ACTION*:—are reciprocally *cause* and *effect*,—but often very disproportioned to each other in their degree.—Enquiry into their nature.—Importance of ascertaining as far as possible, both their absolute and relative quantity or force, as a guide to the mode of treatment:—illustration of this in various cases of disease.—When we are to moderate *action*,—and when to increase it,—as means of ultimately preserving *power*.

XVIII. Circumstances necessary to the true knowledge and successful treatment of disease—*α*. A diligent investigation of the various *remote causes*, connected with—an accurate account of the commencement,—symptoms,—progressive changes,—final termination,—and morbid anatomy; constituting the *History of Diseases* in general:—*β*. A knowledge of the patient's constitution,—idiosyncrasies,—and mode of life:—*γ*. An intimate acquaintance with the *Materia Medica*, or the powers and customary operation of medicines in general, as well as of those already employed in the particular case, and the effects they have had.—From all which collectively taken, we *approach* towards a knowledge of the *Proximate Cause*, (XXVIII), or *nature* and *essential character* of each genus or species of disease.—Exemplification of this.

XIX. Of the *Art of Observing*;—qualifications necessary to excel in it, and mode in which it should be cultivated.

XX. *Causes of Diseases* divided into—a. *Predisposing*,—b. *Occasional or Exciting*,—and—c. *Proximate*.

XXI. PREDISPOSING CAUSES:—Debility whether original or induced:—Inanition (IX);—Plethora (IX);—Excessive Irritability (V);—Torpor (V):—Mal-conformation or particular structure of parts (X);—Peculiar constitution (XII), or hereditary tendency (XIII):—Particular qualities or states of the blood (X).—Preceding diseases.—Sex () —Period of life (XIV).

XXII. *Occasional or Exciting Causes*:—Temperature of climate or season;—Heat;—Cold;—vicissitude;—examples of the diseases to which these respectively give rise.—Modifications arising from moisture or dryness of the air joined with temperature.

XXIII. Certain states of the air independantly of thermometric or hygrometric quality;—shewn in the effects of certain winds:—the East wind in England;—N. W. wind in America,—S. W. wind at St. Helena;—Simoom or Samiel wind of the desarts;—Sirocco of Italy.—Positive healthful quality of some winds, —W. I. Hurricane,—Harmattan on the Coast of Guinea.

XXIV. Peculiar changes in the quality of the atmosphere, taking place occasionally, spreading over many countries in succession, and inducing general indisposition of the Catarrhal kind:—Epidemic Cold, or Influenza.—Account of some of the most remarkable epidemics of this kind.

XXV. Adventitious impregnations of the atmosphere

from the nature of the *soil*:—effects of land winds in general, and of Marsh Miasmata in particular.—Enquiry into the chemical nature of these last.

XXVI. Of CONTAGION, or the morbid matter produced by the living body.—Difference between *Contagion* and *Infection* pointed out;—and mutual misapplication of the terms shewn.—Distinction of Contagions—as generated *de novo*, in crowded, ill ventilated, and uncleanly situations; or,—as *multiplied* by a morbid process under certain states of disease:—and circumstances characterizing the disorders to which they respectively give rise.—Difference of Contagions as—vaporous, or tangible,—permanent, or easily destructible.—Circumstances in which Contagions differ from chemical or other morbid agents.—Anticipating or suspensive operation of certain Contagions with respect to others.—Enquiry into the nature of Contagions in general; and account of the measures proposed for their extirpation.

XXVII. Exciting Causes of disease, operating on individuals—*a.* Violent passions of the Mind:—striking instances of the effects produced by Anger,—Love,—Grief,—Joy,—Surprize,—Fear,—and Horror.—*b.* Sedentary life;—intense study,—or application to business.—*c.* Excessive exercise.—*d.* Diminution or suppression of natural or customary evacuations: *Venus deficiens, vel immodica.*—*e.* Improper diet, whether from the quality or quantity of the food and drink.—*f.* Poisons,—or the effect of violent remedies.—*g.* Mechanical injuries.—Enumeration of the diseases which these causes respectively excite;—and modes in which they appear to act.

XXVIII. Definition of A PROXIMATE CAUSE;—ab-

surdity of it as commonly received:—proper mode of investigating its existence and nature;—and the meaning which we ought to attach to it in a *curative* view.

XXIX. Of SEMEIOLOGY, — or, the *Phenomena*, *Signs*, or *Symptoms* of Disease. — Nature of a *symptom*: —difference of it—as obvious to the physician,—or, as ascertainable only from the patient's feelings. — Of *primary*, and *secondary*, — of *essential*, and *accidental* symptoms.

XXX. Functions, &c. which afford the most important marks or symptoms of disease;—*a*. Circulation; *b*. Temperature; — *c*. Respiration; — *d*. Perspiratory Function;—*e*. Renal and—*f*. Alvine excretions;—*g*. Stomach,—and—*h*. Organs of Taste;—*i*. Brain and Mental faculties;—*k*. Sleep.—*l*. Feelings of the patient; —*m*. Muscular Power;—*n*. Countenance,—Voice,—and Manner.—Consideration of these *seriatim*.

XXXI. Of the PULSE. (*a*. XXX.)—Erroneous idea commonly entertained respecting the immediate cause of the stroke impressed on the finger:—true nature of it.—Varieties of Pulse in health, as to frequency,—strength,—hardness,—regularity, &c. depending on Age,—Temperament,—Sex,—Stature, &c.—Effects produced on it by muscular action,—and by certain *degrees* and *kinds* of motions—*e. gr.* riding in a carriage,—swinging,—sailing,—centrifugal machine:—and application of these in the treatment of certain diseases.—Diurnal revolution in the pulse shewn;—and certain periodical changes in febrile complaints explained from thence.—Changes produced in the Pulse by Sleep,—posture,—mental operations, and passions:—by heat,—cold,—and the chemical quality of the air respired.—Importance of knowing the

frequency,—strength,—and regularity of the patient's pulse during ordinary health.

XXXII. Morbid variation of Pulse *threefold*, viz.—in *number*,—in *force*,—and, in *regularity*.—Pulse *simple* or *compound*, as varying from health in *one* or *more* of these conditions.—Alteration in *number* most common:—oftener *above* than *below* the standard:—*Pulsus frequens*,—and *P. rarus tardus, vel infrequens*.—Of morbid *strength* and *weakness* of Pulse,—both as occurring alone, and as conjoined with frequency:—*P. validus*, and *debilis*, &c.—Of *hardness* as distinct from *strength*,—and of *softness* as distinct from *weakness*: *P. durus*, and *P. mollis*—Other distinctions of pulse as connected with the single stroke;—*P. magnus* and *P. parvus*;—*P. plenus*;—*P. resiliens*;—*P. dicrotus*:—Oppressed or obstructed Pulse.—Combinations of two or more of these varieties.—Variation from regularity *in force*, *P. inæqualis*;—in *interval*, *P. intermittens*:—combinations of these.—Tremulous or fluttering pulse.

XXXIII. Account of some absurd doctrines with respect to the Pulse, as announcing the attack of certain diseases,—or the approach of certain evacuations.—True use of the information afforded by the Pulse.—Directions and cautions with respect to the manner of feeling the pulse.

XXXIV. Of the BALANCE OF CIRCULATION (IX):—marks shewing inequality in it.—Of *Derivation* and *Revulsion*;—respective meaning of these terms:—account of the notions formerly attached to them;—and defence of their use as simply expressing certain changes observed to follow the employment of remedies; whether Evacuants or others.

XXXV. —(b. XXX.) Of TEMPERATURE:—The *Calorific Process*, or production of Animal Heat, though perhaps a simply chemical one in the lungs,—proved to be otherwise in its subsequent stage of evolution.—Its morbid changes both *general* and *local* explained from this. Variations from the healthy standard, both in *kind* and *degree*, shewn;—the diseases in which they respectively occur—and their signs pointed out.

XXXVI. —(c. XXX.) Of RESPIRATION:—its intimate connection with Circulation and Animal Heat, shewn;—and its morbid states, both from this cause, and from its being a muscular action, explained.—Different variations of it under disease,—e. gr. frequent,—slow,—laborious,—catching,—interrupted,—stertorous,—sibilant, &c.—Singultus.—Dilatation of the nostrils.—Breath continually hot—cold?—acid, foetid. (—).

XXXVII. Of the PERSPIRATORY FUNCTION.—(d. XXX.)—Altered state of the Skin under disease with regard to *moisture* and *dryness*,—either alone, or—connected with change of temperature.—Variation of the perspired matter in *smell*,—*colour*, &c.—Petechia,—vibices,—ecchymosis—Eruptions;—their appearance and disappearance.—Information *diagnostic*,—*prognostic*,—and *curative*, derived from this source in various complaints.

XXXVIII. Of the URINE (e. XXX.) Variations in this often considerable independantly of disease.—Morbid alteration—1. In *quantity*;—scanty,—copious,—profuse:—2. In *colour*;—limpid,—pale,—muddy or whey-like,—yellow,—brown,—red,—dusky green:—3. In containing mucous striæ,—films, &c.—4. In retaining its appearance;—or letting fall a furfuraceous,—lateritious,—mucous,—purulent,—bloody,—or crystallized sedi-

ment.—5. In *taste*;—insipid,—sweet,—bitter:—6. In chemical composition, as shewn by certain tests and reagents.—Observations on each of these.

XXXIX. Of the ALVINE DISCHARGE (*f. XXX.*)

—Variation of this from customary and healthy state in frequency,—quantity,—consistence,—colour,—odour;—in being homogenous,—or, mixed with—undigested food,—bile,—mucus,—purulent matter,—or blood:—in being involuntary,—unnoticed.—Importance of attention to this discharge in the treatment of many diseases,—and mischief arising from the common neglect of it, pointed out.—Of borborygmi,—flatulence,—and distension of the intestines.

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XLI. Of the ORGANS of TASTE. — (*h. XXX.*) Morbid alteration in the *sense* of tasting;—increased,—diminished,—depraved.—State of the *saliva*; diminished,—redundant,—viscid,—fetid.—Appearance of the *Tongue*;—furred, of a white,—yellow,—or dark colour;—unusually clean and red,—or crusted, and brown or black;—glairy tongue.

XLII. Of THIRST — as connected with a morbid state of the mouth, fauces, and stomach,—or, as arising from the general condition of the system with respect to heat,—perspiration, &c.

XLIII. Change in the state of MIND (*i.* XXX.);
 —Impaired Memory and judgment; —Unusual timidity,
 —sudden agitation; —desipency; —delirium, —occasional
 or continued, —low and muttering, —or wild and furious;
 —stupor; —coma.

XLIV. Of the SLEEP (*k.* XXX.); —troubled and
 unrefreshing, —short and interrupted, or unusually heavy
 and profound; —somniaency, —watchfulness.

XLV. INTERNAL FEELINGS (*l.* XXX.) Languor;
 —lassitude; —Pain, —acute, —dull, —burning, —pricking,
 —shooting, &c. —Itching; —Heat, —and Cold, —transi-
 tory, —continued, —or alternating. —Anguish, —Anxiety,
 —general oppression; —Numbness, —Stupor; —Vertigo;
 Tinnitus aurium; —Deafness; —Faintness; —Obscurity
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 —*muscae volitantes*.

XLVI. State of MUSCULAR POWER (*m.* XXX.); —
 Weakness, and flaccidity, —or stiffness. — Difference
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 of position; —jaçtitation or tossing; —fumbling or pick-
 ing the bed clothes. —Involuntary action of Voluntary
 Muscles; —Tremor; —twitching; —Cramp—or Spasm;
 —Convulsion.

XLVII. Signs from the COUNTENANCE. — The
 multiform changes of this under disease, though striking
 and highly instructive to the experienced eye, yet very
 difficult to describe. —Chief morbid states: —*Features*
 turgid —swollen, or —flaccid, —shrunk, —pinched. —
 Flushing, —general, or partial; —of a bright scarlet, —or
 deep red. —General pallid, —sallow, —yellow, —leaden,

livid,—or purple tint.—*Eyes* dull, or vivid;—bright and pearly, or—sallow,—icteritious,—ferrety,—or reticulated:—fixed,—or rolling;—half closed,—or staring.—*General expression*—languid,—stupid,—anxious,—gloomy,—fierce:—*Facies Hippocratica*;—*Risus Sardonicus*.—Remarks on these signs, and their principal combinations.

XLVIII. General application of the knowledge of Signs as affording A PROGNOSIS of the Event.—Its great importance as a test of skill.—Though admitting of certain general preceptive rules, yet personal observation indispensable to excelling in it.—To be drawn from *collective* rather than *individual* symptoms, however alarming or encouraging separately:—proofs of this.—Principal points demanding attention (XXX.);—with directions how to sum up the evidence in order to form a correct prognosis.

XLIX. Of METASTASIS, or the translation of disease from one part to another.—Examples of it;—and the kinds of disease in which it chiefly takes place.—Of *similar*, and *dissimilar* Metastasis.—Of the change or CONVERSION of one kind of disease into another.

L. Of the DIVISION of Diseases into — Universal or Local;—Idiopathic,—or Symptomatic;—Acute,—or Chronic;—Periodical,—or Irregular;—Mild,—or severe;—Benign,—or Malignant;—Innate,—Connate,—or Acquired:—Diseases of Sex,—Age,—and Condition in life.—Diseases of certain Trades and Occupations:—Infectious,—Contagious,—or Incommunicable;—Endemic,—Epidemic,—or Sporadic;—External or Internal:—Diseases of Parts,—Organs,—or Functions:—Curable and Incurable.

LI. Though comparison of Diseases in every point of view, instructive; yet that from corresponding assemblage of symptoms, as shewing *similarity* or *identity* of *nature*, and corresponding agreement in the General Indications of Cure,—the only one *practically* useful.

LII. Of Nosology,—or the Methodical Arrangement and Classification of Diseases.—Its utility shewn.—Difference between the *Definition*, and the *External Character* of a disease, explained.—History of the origin and progress of Methodical Nosology, as successively cultivated by —PLATER, —SAUVAGES, —LINNEUS, —VOGEL, —CULLEN, —SAGAR, —and MACBRIDE. —General character of their respective modes of arrangement,—and reasons for preferring that of DR. CULLEN as *practically* the best.—Laws of Nosology; and examples of their infringement by each of these writers, enumerated.

LIII. Particular explanation of Dr. Cullen's arrangement and characters of Diseases, exhibited in a tabular form;—with comments upon its general merit and individual defects.

LIV. GENERAL PRECEPTS respecting the TREATMENT of DISEASE, in the form of Aphorisms,—illustrated by examples.

LV. Of the DISCOVERY of REMEDIES:—various modes of it.—Origin of MEDICINE as a Science or Art.—Vague and ridiculous principles upon which many articles still in use, were first employed.

LVI. Modes of Investigating the Power and Medical Virtues of Remedies.—1. *Analogy*.—2. *Actual Experiment*.—Different kinds of the first;—a. *Chemical exami-*

nation;—*b. Botanical Affinity*;—*c. Sensible quality* as to—
taste,—smell,—colour, &c.—Method of proceeding in
each of these modes of investigation; and uncertainty to
which they are respectively liable.

PART II.

THERAPEUTICS.

Morbos autem, non eloquentia, sed remediis curari. CELSUS.

LVII. MODE of appreciating Remedies by experiment either *direct*,—or *indirect*.—The *indirect* threefold;—1. Mixing them with the blood when drawn;—2. Injecting them into the veins of a living animal;—3. Administering them to Animals whose œconomy resembles that of Man.—Account of various experiments made in each of these ways,—the fallacy to which they are liable,—and the legitimate conclusions that may be drawn from them.

LVIII. Even the *direct* method, of trial on the living human body, often subject to doubt,—from incorrectness in making, and still more from secret bias or absolute unfaithfulness in relating the experiment.—Instances of this.

LIX. Of the *Modus Operandi* of Medicines:—divisible into three simple modes,—*mechanical*,—*chemical*,—*sensorial*:—Examples of each separately; but combination of them most common.—General conclusion.

LX. Distribution of Remedies into CLASSES corresponding with the principal Indications of Cure, or the purposes which they are more especially calculated to fulfil; viz.

A. — Remedies acting chiefly upon the simple solid,

and living fibre,—as—1. ASTRINGENTS.—2. TONICS.—3. STIMULANTS.—4. SEDATIVES.—5. ANTISPASMODICS.—6. EMOLLIENTS.—7. CORROSIVES.

B. —REMEDIES acting on the FLUIDS chiefly,—*a.* by *evacuating* them, as—8. EMETICS.—9. CATHARTICS.—10. DIAPHORETICS.—11. DIURETICS.—12. EXPECTORANTS.—13. ERRHINES.—14. SIALOGOGUES.—15. EPISPATICS.—16. EMMENAGOGUES.—or—*b.* by *altering their quality or condition*, as—17. DILUENTS.—18. DEMULCENTS.—19. ANTACIDS.—20. ANTISEPTICS.—21. Alterants.

C. — Remedies acting upon foreign bodies lodged within the human machine, as — 22. LITHONTRIP-TICS.—23. ANTHELMINTICS.

D.—24. ANOMALOUS REMEDIES,—or those which have such extensive and varied operation as not to be more strictly referable to any one of the foregoing Classes than to several others.

PART III.

MATERIA MEDICA.

*Et quoniam variant morbi, variabimus artes,
Mille mali species, mille salutis erunt. OVID.*

LXI. The Individual articles as arranged under their respective Classes abovementioned, considered in detail;—giving—1st. the names adopted by the Colleges of London, Edinburgh, and Dublin;—the most common Synonyma, and the Etymon of each when ascertainable.—2dly, the Linnean Class,—Order,—Genus,—and Species;—and also, if the article be a vegetable, its *Natural Order*, with a view to shew how far there is a connection between the *botanical character*, and *medical virtue* of plants.—3dly, the Natural History of the Article;—the country, soil, and situation producing it;—the modes by which it is obtained;—and the processes it undergoes before it is brought hither.—4thly, the *sensible* and *chemical* properties of the article;—the marks by which its good or bad quality may be known;—and an account of the frauds occasionally practised with respect to it.—5thly, its *Medical Powers*, and the particular indications which it is especially adapted to fulfil;—with *cases* and *testimonies* illustrative of these, either collected from the best authorities, or the result of personal experience.—6thly, the dose suited to different ages and circumstances;—the various *modes of exhibition*;—and the *Regimen* proper under its use.—7thly, the different articles with which

it may be united, so as to improve or modify its effects; and the *rationale* of their joint operation.—*Lastly*, its *Officinal Preparations and Compositions*;—with Pharmaceutical and Practical remarks on the most important of these.—The whole illustrated by an extensive *Collection of Specimens*, comprehending not only those articles contained in the Pharmacopœias of London, Edinburgh, and Dublin, but many others, either recently introduced into use in this country, or taken from the best Foreign Dispensatories.

Valeat quantum valere debet.



