Mass. Medical College

AN HISTORICAL ESSAY ON THE DROPSY;

BY

RICHARD WILKES, M. D.

LATE OF

WILLENHALL, in the County of STAFFORD.

χρὴ

Αλλὰ ποτῆ τε μέτρον καὶ σίτου γυμνασίων τε
Ποιεῖσθαι. μέτρον δὲ λέγω τόδ' ὅ μή σ' νηήσει.

PYTHAGORÆ AUR. CARM.

SECOND EDITION.

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LONDON.

Printed for B. LAW, AVE-MARY-LANE; and
G. RAY, STAFFORD.

MDCCLXXXI.

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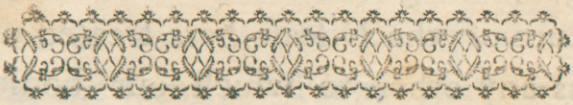

THE

EDITOR'S Preface.

FROM the two following letters it will evidently appear, that Doctor WILKES intended ſome time or other to publiſh this Eſſay upon the Dropſy; but from his many avocations in his buſineſs, of which no one had greater practice, fame and repute, in this and

the neighbouring counties, than he had, being as remarkable for the cure of the Diſeaſe here treated of, as any other to which our bodies are ſubject; and other very material things happening, that deſign was laid aſide. It may perhaps be thought neceſſary that I ſhould give the world ſome reaſons for its now being publiſhed, which may be done in a few words. The Doctor dying in the year 1760, his library, which was a very valuable one, came to me, among which was this manuſcript, and the two before-mentioned letters. I have been told by many that were the Doctor's friends, and well-wiſhers to me, and ſuch as are eſteemed judges in theſe matters, that it was

a thou-

a thouſand pities, ſuch a work ſhould lie dormant, as it might be of real uſe to ſociety as well as the faculty. From their ſollicitations and the great deſire I have to do juſtice and honour to his memory, as far as my abilities will reach, I have at length undertaken to tranſcribe it, as it was greatly interlined, and very difficult in many places to be made out; but as no one had better opportunity of knowing and being acquainted with the Doctor's hand-writing than myſelf, having been brought up by him from a child, I thought myſelf the propereſt perſon to perform that office: but as I do not pretend to underſtand all the phyſical terms, my ſtudies having been

directed another way, viz. to the care of the ſoul, if there ſhould be any material miſtakes or omiſſions in the book, I muſt take the blame to myſelf, and aſk pardon of the learned world.

STAFFORD,
Jan. 16th,
1772.

THO^S. UNETTS.

Copy of a Letter from Dr. Burton, to Dr. Wilkes.

Sir,

'I THINK myſelf much obliged
'to you for your very uſeful Trea-
'tiſe of the Dropſy. It is the com-
'pleateſt I have met with upon that
'ſubject, and the faculty may in al-
'moſt one view look upon every thing
'that is really worth their knowing
'upon that diſeaſe. An idle man, if
'he reads it with great attention, will
'make abundant advantage of your
'induſtry, and may in a few days in-

'form himſelf of what muſt neceſſa-
'rily have taken up a great deal of
'your time, in collecting and digeſt-
'ing into ſo good order. But as you
'deſire me to ſpeak as rigidly as an
'uncandid perſon could do of the
'performance, ſuch a one might per-
'haps ſay you have entertained us
'with too much of other peoples,
'and too little of your own: which
'was a general cenſure of our friend
'Dr. Holland's book of the ſmall-
'pox. I would not be ſo far miſ-
'underſtood, as to compare his little
'treatiſe with yours, which confeſ-
'ſes ſuperior learning, and is infi-
'nitely more full and compleat. I
'only give you a hint, whether it
'may not be adviſeable to omit now
'and then ſome of the leſs material

quotations.

'quotations. *He would have pleaſed*
'*us more, had he but pleaſed us leſs,*
'has been a very common tho' an
'uncandid cenſure of a good per-
'formance. For my own part, I
'ſhould be unwilling to loſe any of
'it. But the generality, who will
'be offended if they poſſibly can,
'may reflect upon it as a *laborious*
'and perhaps a *tedious* collection.
'As to the firſt epithet, I really
'think we are greatly obliged and
'advantaged by the care you have
'taken; as to the ſecond, they muſt be
'very ſuperficial who would not with
'pleaſure revolve every part of a uſe-
'ful ſubject, that is ſo thoroughly
'and conſequently ſo ſatisfactorily
'treated. I have been ſo very much

'engaged of late, that I have not ex-
'amined it with that care which it
'deſerves. I propoſe to indulge
'upon it, if you can ſuffer it ſome
'time longer in my hands, and to
'give you my thoughts more parti-
'cularly upon it. I will at the ſame
'time ſend you a hint or two of the
'uſe of gas ſulphuris given to the quan-
'tity of three drachms in about two
'ounces and an half of a bitter tinc-
'ture twice a day, as a moſt efficaci-
'ous deobſtruent and diuretical me-
'dicine, in this diſeaſe, as I have
'frequently experienced. If you
'pleaſe to make trial of it, with a
'moderate doſe of oxymel ſcylliti-
'cum at night, I believe you will be
'very well pleaſed with it. The

'gas

'gas ſulphuris, even in ſo high a doſe,
'gives little offence to the ſtomach.
'Pyrmont water with good old hock,
'acidulated with this volatile gas,
'makes a very grateful and very uſe-
'ful liquor for a Dropſical patient.
'I lately ſaw a gentleman, who was
'judged to have the hydrops pectoris
'by his phyſicians at Derby, and
'came hither to me in a caſe ſeem-
'ingly deplorable, in a fortnight's
'time ſurpriſingly relieved by the
'eaſy method above mentioned.
'After a dyſpnœa that he had la-
'boured under for two years, at laſt
'his legs, thighs, and belly were
'conſiderably ſwelled. A jaundice
'was ſuperadded to his Dropſy,
'with great weakneſs, an entirely
'loſt

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'loſt appetite, and a very ſmall
'quantity of a very high-coloured
'urine. But in little more than a
'fortnight's time, his great difficulty
'of breathing, yellowneſs, and ſwel-
'ling were removed. He made great
'quantities of water, and recovered
'his appetite and ſtrength ſo far,
'that the beginning of next week he
'returns into Derbyſhire again, where
'I believe his friends never expected
'to ſee him. I really thought, the
'night before I directed him the a-
'bovementioned method, that he
'could not poſſibly have ſubſiſted
'forty-eight hours. I had not trou-
'bled you, with this caſe, if the
'recovery had not been chiefly
'owing to the only medicine, I
'think,

'think, you have not taken notice
'of in your very valuable treatiſe,
'by which you have highly obli-
'ged,

Sir,

Your very faithful,

And obedient Servant,

Dover-ſtreet,
Sept. 16*th*,
1731.

T. BURTON.

Copy of a Letter, from Dr. WILKES, to Dr. BURTON.

Willenhall, Sept. 25th, 1731.

SIR,

'I AM not at all ambitious of be-
'coming an author, but if I ſhould,
'I ſhall moſt certainly obſerve the di-
'rections of Horace---Si quid tamen
'olim ſcripſeris, in metu deſcendat
'judicis aures, et patris, et noſtras,
'nonumque prematur in annum, &c.
'Phyſick, after all the improvements
'hitherto made, is even at this day but
'con-

'conjectural. It has long been my
'opinion, that the only way to bring
'it to certainty, would be to ſhew in
'one view, what has been already
'done in each diſtemper, that by this
'means we might be aſſured what
'was really wanting, for many things
'of the antients, have frequently
'been publiſhed for new inventions.
'If in my Eſſay I have done this in
'the Dropſy, I have my aim; but
'muſt leave it to you and the learned
'to determine, whether my way of
'thinking is right. You ſee I have
'taken ſome pains in this affair;
'and I was unwilling to go farther,
'till I knew how my friends appro-
'ved the deſign. Sir John Floyer has
'peruſed the eſſay, and encourages
'me

'me to proceed to finiſh it, but I
'ſhall much ſooner rely upon your
'judgment. I preſumed on your
'goodneſs, and ſent you the rough
'draught; but I ought to aſk par-
'don for it, becauſe I am ſenſible
'there are many excreſcencies to be
'pared off, and many deficiencies,
'I fear, to be ſupplied; of which
'the gas ſulph. is one, for which I
'ſhall always own the obligation.
'Perfection is what one of my mean
'abilities and obſcurity can have no
'pretence to; but as you have been
'always ready to aſſiſt me in diffi-
'culties, ſo now if you'll pleaſe to
'favour me with your obſervations
'on this work, I ſhall hope to ſee it
'correct at leaſt, if not abſolutely
'perfect.

'perfect. 'Tis true it chiefly con-
'ſiſts of the labours of other men,
'but as it is *hiſtorical*, I thought I
'ought to produce vouchers for
'every thing I advanced. No one
'man I believe ever ſaw all the ſe-
'veral ſorts of Dropſies mentioned
'in the anatomical hiſtories; and I
'am ſure no one man could invent
'all the different methods of cure,
'and the great variety of medi-
'cines, which I have there collected.
'I beg that in your obſervations
'you would act with the utmoſt
'ſeverity; becauſe when a friend
'gives correction, his hand is apt to
'be too tender and gentle. You
'may have the book as long as you
'pleaſe; and when I have tranſcri-
'bed

‘ bed it again, I hope it will appear
‘ before you in a much better dreſs ;
‘ and am,

Sir,

Your moſt obedient,

And very humble Servant,

RICH^D. WILKES.

THE

PREFACE.

WHEN we talk of the nature of things, and frame arguments from thence *à priori*, as they are called, we are all in the dark; and ſuch arguments muſt be true or falſe purely as they are ſupported or contradicted by particular matters of fact. Induction is the only ſure way that we have of coming at truth; which made the old

The nature of things, how known to us.

philoſophers ſay, it lay in a deep well, and was therefore hard to be come at. Such arts only are now perfect, where an enumeration has been made of all the particular caſes that can poſſibly happen in them. From theſe particulars, thoſe general rules are formed which are given by the beſt maſters. In trigonometry, whether plain or ſpherical, all the caſes that ever can occur to us muſt come within a certain number, now known to every body. In geometry, all ſort of curves that can be drawn have been enumerated, and from thence their nature, whether as ſquarable or not, is eaſily learnt: and in logic, all the ſyllogiſms that can be formed muſt come within ſuch a number of modes and figures. By obſerving the conſtant motion

motion of the planets, and their being found in ſuch and ſuch parts of the heavens, at ſuch and ſuch times of the year, the curves they deſcribe, the time of their revolutions, eclipſes, &c. have come to be determined to the utmoſt nicety, and the nature of comets muſt in time be diſcovered. By this means ſuch things as appeared to be beyond the compaſs of human reaſon, have been made plain and eaſy even to mean capacities. There has however in all ages been a reſervedneſs in great men; I know not whether it may not better deſerve the name of pride; which has been of vaſt diſadvantage to the world. I mean that method of keeping their diſcoveries as ſecrets, or propoſing them as difficulties, when they them-

ſelves were already maſters of them. By this means the progreſs of arts and ſciences has been much hindered, and the time of ingenuous perſons employed about trifles, which might have been of much greater ſervice to mankind. This is one : but the greateſt reaſon why the art of healing, after ſo many thouſand years, is yet ſo far from perfection, is, becauſe ſuch an enumeration has not been made of all the diſeaſes a human body is ſubject to, and from thence of their true theory, and all the poſſible ways of curing them. The antients undoubtedly ſet out right, when they only made uſe of ſimple medicines in all their diſorders, and when any was found ſerviceable recorded it in their temples. Had this method been purſued,

Why the art of phyſic is ſo far from perfection.

ſued, we might at this day have ſeen as certain rules in this as any other art; but men thought themſelves maſters of the buſineſs too ſoon, and therefore ran into the theory of diſeaſes, and compoſition of medicines, before they had laid a ſufficient foundation in the particulars of either. They indeed wanted what we enjoy, a good foundation in anatomy, and from thence the circulation of the blood and juices. Theſe are the baſis upon which the nature of all diſorders are founded, and from thence they muſt be accounted for.

Our commerce with the Indian, American, and other parts of the world, has furniſhed us with many

Simple medicines not yet ſufficiently tried.

ſimples unknown to them; and the art of chymiſtry has ſupplied us with a number of compounds, whoſe force and efficacy is much greater than thoſe of any medicine they were acquainted withal. Since phyſic has been made a trade, there is not indeed ſo much room left for the uſe of ſimple medicines; and yet, in extreme caſes, we muſt always truſt to one, otherwiſe we may as well kill as cure. By this method, Opium has been found to be infallible in eaſing pain, and giving a check to all kinds of fluxes; and by this method, the Peruvian Bark has been found as certain in the cure of intermitting fevers and mortifications. At preſent we ſeem to be ſatisfied that cancers are incurable, and that all

all ſcrophulous tumours are very hard to be removed: but if we have regard to the nature of theſe diſorders, we know they can only be cauſed by an obſtructed circulation, and that the reaſon why we now pronounce them ſo much above the power of medicine, is, becauſe we have not ſufficiently tried the power of ſeveral ſimples in theſe diſorders.

Had we a ſufficient number of hiſtories ſhewing how far each ſimple would go, either in ſtopping or removing ſuch kind of obſtructions, we might then, with far more certainty than we can at preſent, pronounce which of them was curable or otherwiſe. Diacodium and ſpirits of vitriol

have but lately been found ſerviceable in the ſmall-pox; ſo has ſpirits of hartſhorn in children's convulſions, and obſtructed perſpiration, which is the general cauſe of fevers. The latter of theſe has already much leſſened the conſumption of theriaca and diaſcordium, thoſe tedious and nauſeous compoſitions of the antients, and will in time, if I gueſs right, quite drive them from their ſtrong hold the diſpenſatory. In all fevers more may now be done by this ſpirit, Riverius's mixture of ſalt of wormwood, and juice of lemons, or the ſpirits and elixir of vitriol, rhubarb, ipecacuanha, cantharides, and the bark, than by all the numberleſs numbers of medicines to be met with

with in the Greek, Roman, Arabian, and German phyſicians. (*a*)

As to the theory of diſeaſes: ſince philoſophy has been introduced into phyſic, we find it has undergone many alterations, according as this or that has been the faſhionable ſyſtem. The doctrines of Ariſtotle, Des Cartes, and the chymiſts, have all had their ſeveral turns in this account, and, like tapers, have only been lighted up to ſupply the true ſun for a time; but, at their going out, have left the world in the ſame darkneſs as it was before their appearance. The buſineſs of attraction, and mathematical calculations, at preſent engroſs all our thoughts, and hardly any thing in

True theory of diſeaſes, whence.

(*a*) See Obſ. 4. Ch. 6.

in phyſic will go down with us without a diagram or algebraical equation. 'Tis true our bodies are only a regular maſs of ſolids and fluids, put together in a moſt beautiful order. The latter move, in a healthy ſtate, with great regularity and exactneſs; and when the body is out of order, this motion is very much altered and confuſed. All this every body muſt allow; but then before we can come to any certainty in this caſe, we muſt exactly know all the ſeveral kinds of fluids whereof our bodies conſiſt. 'Tis but lately that the lymph and its circnlation was diſcovered; the animal ſpirits are yet a thing in diſpute; and whether time may diſcover any other ſort, is what no man at preſent can affirm. Now when theſe fluids

fluids are all once known; their different communications one with another, and the general laws of fluids moving in conical and cylindrical tubes once ſettled, (for at preſent I can't find that they are) then, and not till then, we may perhaps have the nature of an intermitting fever expreſſed by a biquadratic or ſome other kind of equation; and that of a continued one, by an equation of a higher power. The gout and cancer may then come under ſome of the forms in Sir Iſaac Newton's quadrature of curves, or of a multinomial conſiſting of more terms than any in this, or any other author, who has yet written upon fluxions. As the caſe now ſtands, we muſt not expect any thing of this kind. There

are

are too many things wanting to bring the theory of diſeaſes to ſo much certainty; and therefore I ſhall only obſerve, that till the large gap in the deſiderata which Dr. Cheney (*a*) has diſcovered in this kind of theory is filled up, we muſt deſpair of ſeeing any ſuch equations. Beſides, could we hope to ſee ſuch kind of calculations, there are few perſons I fear would be able to apply the theorem in particular caſes with advantage to their patients; becauſe, in ſuch tedious calculations as ſome of them muſt be, a miſtake of a letter, figure, or ſign, might ruin all, and by a ſmall ſlip of the pen deſtroy the life of the party

(*a*) See his Theory of Medicine, before his new Theory of Fevers. p. 23.

party we were ſo deſirous to preſerve.

A mathematical theory of diſeaſes then not being likely to appear in our time, upon the foundation mentioned above; and if it did, ſince there might be great difficulty and hazard in the application; I have undertaken in the following ſheets, in another way, to ſettle the theory and cure of a diſeaſe, which carries off great numbers of both ſexes yearly. If what I have here written will but contribute to the ſaving the life of any one perſon, I ſhall think my time, which has not been a little, very well employed; and if I am any way miſtaken, I hope I ſhall meet with a favourable excuſe, at leaſt from the learned and candid

What is to be expected in the following diſcourſe.

candid reader, ſince it was undertaken with a good deſign; and as for critical and other ill-natured cenſures, I ſhall both deſpiſe them and their authors.

The following treatiſe then is founded upon the ſolid baſis of induction. A man may with eaſe write a theory of a diſtemper, and ſo fit caſes exactly to that theory: but this I think is a very erroneous way of proceeding, and is never likely to bring matters to a certainty. I have taken a very different courſe; but whether the reſt of the world will be of my opinion I know not; only this I can ſafely ſay, ſome of thoſe who are now at the head of our profeſſion

gave

gave me encouragement to go thro' with the undertaking.

The caſes here picked up were written by ſeveral perſons in different ages, without ſo much as once thinking of the uſe that is here made of them: and therefore, if the concluſions I have drawn from them are ſuch as naturally and eaſily follow from the premiſes, I hope the world may receive them as certain and undeniable truths. By this method of writing, the labour, great care and pains of our predeceſſors may be made ſerviceable to poſterity, and conſequently may very juſtly be ſaid to anſwer the end for which they were recorded. I am apt to think no man now living, or that ever did live in any age or place,

place, has or ever had an opportunity of collecting ſuch a great variety of caſes from his own experience; and therefore I hope, as the whole deſign is hiſtorical, I ſhall not be called a plagiary, for making ſo free with the writings of other men. The very nature of a work like this is founded upon what has happened at all times, and in all parts of the world, and muſt therefore be collected from the writings of the beſt authors; and of ſuch only I hope I have here made choice. In the hiſtory of mens actions, as they happen but once, the authors, which lived neareſt thoſe times, always bear the greateſt ſway with us, and their teſtimonies muſt in a great meaſure force our aſſent. In this treatiſe, every article is taken

from

from the relations of ſuch as were eye-witneſſes of and privy to every thing that happened during the whole ſcene of action, ſo that nothing can in this caſe be required farther, eſpecially, ſince it cannot be ſuppoſed they could have any advantage by impoſing upon us with their narrations. Now as a human body is, and muſt be the ſame in all ages, as to the fluids and ſolids whereof it is compoſed, ſo it muſt conſequently be ſubject in all the ages of the world to the ſame kind of diſorders. Tis true, luxury will add ſome new diſeaſes to the account, and will perhaps heighten the ſymptoms of the old ones: But in the general, I think we may fairly conclude, that the things which have in any caſe given relief heretofore, may in the like circumſtances in ſucceeding generations do the ſame again. If more of the common diſ-

eaſes were treated in the ſame manner, we ſhould moſt certainly know the nature of them better than we do at preſent, and might more readily know when to expect, and how to ſet about their cure. For my own part, I ſhould be extremely pleaſed with ſuch accounts, and am in hopes of ſeeing ſomething of this kind come from the pens of ſuch whoſe abilities are far ſuperior to mine. I don't think it reaſonable that theory ſhould only meet with encouragement, when the practical part of phyſic is chiefly to be regarded. If we had not ſo many general ſyſtems, but more particular accounts of ſeveral diſeaſes, the world would receive more advantage from the writings of great men, than it does at preſent, for tho' many undertake, very few, or perhaps none, are capable of performing ſo great a work.

CHAP. I.

Of the Name, and ſeveral Kinds of DROPSIES.

ALMOST all the nations of Europe have given a name to the diſtemper, whereof I propoſe a ſhort hiſtory in the following ſheets, that either ſignifies water abſolutely, or has ſome alluſion to it. The Greeks frequently called it only *(a)* water, and ſometimes joined in compoſition a *(b)* word ſignifying the face, aſpect, or external appearance of a thing; ſo that by both together they meant, that the perſon afflicted with this diſorder, had too much water in him, as was evident by his complexion. The (*c*) Romans, and from them the (*d*) French, and

Whence the word Dropſy.

 many

(*a*) ὕδωρ, ὑδερὸς, water. (*b*) ὠψ, the face, aſpect, or external appearance of a thing; whence ὕδρωψ and (*c*) Hydrops, Hydropiſis. They alſo called it aqua intercus or aqua inter cutem, *i. e.* water within, or under the ſkin. (*d*) Hydropiſie.

many other nations, derive their names of this diſeaſe from the latter of theſe Greek words. Perhaps ſome may think our word Dropſy is of the ſame origin; but I am of opinion, we have it from our Saxon anceſtors. With them *dropas* was the ſame as *drops* are now, and *ea* or *ey* the ſame as water; ſo that altho' the word comes from a different quarter, yet the diſtemper which we mean by it, is the very ſame as it was among the Greeks and Romans.

We often ſay in Engliſh, that a humour falls upon this or that part of the body, and ſo cauſes illneſs.

The antients had the ſame idea, and accordingly gave names to ſeveral diſorders which are all derived from words of the like ſignification. Catarrh, Diarrhæa, and Rheumatiſm, all come from a (*e*) Greek verb, which ſignifies to flow or run like water. Gout, and Gutteta (*f*), a name ſometimes given to the Epilepſy or falling-ſickneſs, come from a Latin word, for a drop:

(*e*) ῥέω, to run or flow like water.

(*f*) Gutta a drop, thence la goute, gout; and la goute de tete, the drop of the head, whence gutteta, the falling-ſickneſs.

drop: and the word Diabetes *(g)* means no more than a ſyphon or tube, thro' which water paſſes. This laſt diſeaſe is likewiſe ſometimes called a Dropſy to the chamber-pot *(h)*, and a Diarrhæa by urine.

The Dropſy is a diſeaſe, ſays Aretæus, which is common to all ages and ſexes; men, women and children, being afflicted with it indifferently, tho' ſome bodies are more liable to it than others. Women after the time of their menſes, are much more frequent ſufferers by it than at any other age; tho' young ones, eſpecially thoſe that are barren, often yield to its too powerful attacks. There are ſome ſorts peculiar only to men, as the Hydrocele; ſome to women, as the Hydrops uteri; and ſome more frequently happen to children, as the Hydrocephalus.

Who ſubject to it.

Hippocrates, Aretæus, and ſome other of the antients, made four ſorts of Dropſies. If the belly ſwelled, and when ſtruck upon would ſound like a drum, they called it a Tympany *(i)*. If it ſwelled round with a pro-

Its ſeveral kinds.

1. Tympany.

(g) διαβήτης, a ſiphon, pipe, faucet, &c.

(h) ὕδερος ἐις ἀμίδα: διαῤῥοια ἐις οὖρα.

(i) τυμπανίτης, τυμπανίας, Tympanites; from τύμπανον a drum.

protuberance like a bottle, they gave it the name (*k*) Aſcites; if the whole body ſwelled, and the ſkin ſeemed to be filled with a white, thick, cold phlegm, it obtained the name of Phlegmacy, or (*l*) Leucophlegmacy.

2. Aſcites.

3. Leucophlegmacy.

C. Aurelianus (*m*) 'tis true aſſigns another reaſon for this name; for he ſays, that in this diſtemper ſome vomit up a white, thick humour, and that others void it by ſtool; from whence 'tis probable this name may as well be derived, as from the colour of the ſick perſon's ſkin. Laſtly, if the ſwelling of the whole body continues, the fleſh waſtes, and turns to a watry, bloody and thin humour, like that which flows from ulcers of the inteſtines, or ſuch as is let out from under the ſkin after a bruiſe; then, ſays (*n*) Aretæus, we call it an Anaſarca. How often diſorders of this kind might be found in Cappadocia, is out of my power to determine; but I think I may be pretty poſitive that few or none ſuch are now, or

4. Anaſarca.

(*k*) ασκίτης, aſcites; from ἀσκὸς, a bottle.

(*l*) φλεγματίας, λευκοφλεγματίας, from φλεγμα, phlegm.

(*m*) C. Aurel. cap. 8. p. 470.

(*n*) Aret. op. p. 57. Ἀνασαρκα, from ανα, all over and σὰρξ, the fleſh.

or ever were, to be met with in Great Britain.

Others of the antients, as P. Ægineta, Al. Trallian, and many of the moderns, allow of three ſorts only: viz. the Aſcites, Tympany and Anaſarca, leaving out of the account the Leucophlegmacy, which ſeems to be a ſpecies of the Anarſarca; and tho' perhaps common enough in Greece, yet, according to Mr. Liſter, is very rarely found in England.

If we take a ſtrict view of theſe ſeveral opinions of the antients about the different kinds of this diſtemper, we ſhall find that, according to their own doctrine, there could be only two ſorts of Dropſies; viz. the Aſcites and the Anaſarca; for in a Tympany they ſuppoſed there was little or no water *(o)*; and a Leucophlegmacy differs only in degree from an Anaſarca, as will I hope in the following diſcourſe moſt evidently appear. Reduced to two.

(o) Hippocrates by a catachreſis, according to ſome, calls this diſorder ὕδρωπα ξηρὸν, the dry dropſy or dropſy without water; tho' others think by theſe words he only means a dropſy that is attended with a dry belly or coſtiveneſs.

Hepatias and Splenites.

Diocles *(p)* gave the name of Hepatias and Splenites to the Aſcites, becauſe he and many others after him ſuppoſed, that this diſorder always came from a fault of the ſpleen or liver; but this doctrine will be proved to be erroneous in the ſequel of this diſcourſe.

Original and ſymptomatical.

Al. Trallian *(q)* ſays, all dropſies may be conſidered as original or ſymptomatical; the former coming from an ill habit of body only, the latter being the offſpring of other diſeaſes.

Bilious and lymphatic.

Dr. Leigh divides this diſtemper into the bilious and lymphatic; but as this diſtinction is founded in the cauſes of this diſorder, he might either have left out the firſt ſort, or might have added ſeveral more: for as a bilious Dropſy, according to him, proceeds from thick condenſated choler, obſtructing both the glands and biliary pores of the liver; ſo the pancreatic, nephritic, &c. might equally deſerve a place in his account, when the juices of the pancreas, kidneys, &c. become ſo viſcid as to ſwell

(p) C. Aurelian. cap. 8. p. 471. ἡπατίας, from ἧπαρ the liver: σπληνίτης, from σπλὴν the ſpleen.

(q) Al. Tral. op. p. 136.

ſwell and fill thoſe viſcera with a watry humour. *(r)*

Hippocrates *(ſ)* is the firſt, and almoſt the only author, who makes mention of an hereditary Dropſy, or one that is derived to us by our parents. Many diſtempers, viz. gout, rheumatiſm, conſumption, aſthma, &c. are by the generality of mankind allowed to be hereditary; but there is not any hypotheſis yet advanced in Phyſic, which is able to give ſatisfaction to the mind of an inquiſitive perſon about the reaſon why this ſhould be ſo. Hence I preſume it is, that this kind of Dropſy, tho' mentioned by the divine old man, is ſo rarely to be found in authors of a later date. 'Tis poſſible that the preſent nor any ſubſequent principles of natural philoſophy may not be able to ſolve this and many other difficulties; but that this is ſo in fact, is out of the power of the greateſt ſceptic to diſpute. I have a female relation about 50 years of age, who has been ſubject to a

Hereditary.

(r) Dr. Leigh's natural hiſtory of Cheſhire, &c. B. 2. p. 69.

(ſ) Lib. prædict. 2. p. 89. ἀπὸ γόνως, from the birth, or ſemen genitale.

Dropſy from her infancy. Her mother laboured under the ſame diſorder when ſhe was with child of her, and after ſome years died of this obſtinate diſtemper. For twenty years together this young woman took all manner of medicines, that could be contrived for her by the beſt phyſicians which were then in the neighbourhood, in hopes, ſome time or other, to get quit of this ſo troubleſome a companion; but all to no purpoſe.

For theſe laſt eighteen or twenty years of her life, ſhe has conſtantly taken, about the time of the equinoxes, two or three doſes of ſome briſk purging medicine; and now and then at other times of the year, when the ſwelling of her legs, belly, or ſhortneſs of breath has increaſed upon her to any degree. By this means ſhe has enjoyed a tolerable good ſtate of health from the time ſhe began with this method, and is now *(t)* able to perform all the neceſſary affairs of life, without much trouble to herſelf, or thoſe that are about her.

A French

(t) So ſaid 1740.

A French ſurgeon *(u)* has lately given us a couple of new names for a dropſy. According to him all dropſies are cauſed by effuſion or infiltration. When any part of the body ſwells gently, the humour being very thin and ſubtile, that part is ſaid to be infiltred with the humour. This way of expreſſion Mr. Le Dran *(x)* often uſes, and it is now common among the French ſurgeons. When the humour is more groſs, and the tumour comes on quicker, the veſſels perhaps being burſt, it is then ſaid to be cauſed by effuſion. Much has been advanced concerning the propriety of theſe expreſſions, and whoever has a mind to be ſatisfied may conſult the authors here quoted. *(y)*

By effuſion and infiltration.

Nuck *(z)* firſt mentioned the Hydrops ſaccatus, or Bag-dropſy. Here the water is included in a cyſtis, bag or hydatid. This is a proper diſtinction as will appear by ſeveral examples to be met with in this treatiſe.

Bag-dropſy.

When there are more than one of theſe bags, or hydatids, it may then not improperly

(u) Garengeot's chirurg. operat. p. 144.

(x) See his operations.

(y) Adenographia curioſa, p. 127.

(z) Dr. Friend's hiſt. of phyſic, vol. 2. p. and Med. Eſſ. Edin. vol. 1. p. 242.

perly be called Hydrops veſicularis, or the Bladder-dropſy. Aretæus *(a)* makes mention of this kind; 'tis very common, and many hiſtories of it may be found in this eſſay.

Veſicular.

As ſome dropſies are attended with great heat, thirſt, pain in the legs, feet, &c, &c. others are more cold, without any of theſe ſymptoms; ſo the former ſort may not improperly be called hot or inflammatory dropſies, and the latter cold or phlegmatic.

Hot and cold.

The moſt eaſy and natural diviſion of dropſies, in my opinion, is into partial and univerſal; the former ſort affecting ſome one part of the body only, and the latter ſpreading itſelf all over from head to foot: this may be called an Anaſarca, as the former will take its name from the part affected, the general word Dropſy being joined to it. In the abdomen 'tis always an Aſcites; but in the head, breaſt, womb, &c. 'tis a Dropſy of the head, breaſt, &c.

Partial and univerſal.

Now tho' according to this laſt diviſion we ſuppoſe the ſeat of a partial Dropſy to be fixed in one part of the body only, yet we muſt allow that in time many other even remote

(a) De chronic. lib. 6. cap. 1.

remote parts may be affected. Thus in the Aſcites, tho' the part which firſt ſuffers muſt be ſome of the viſcera contained in the cavity of the abdomen, yet in time the legs, ſcrotum, &c. will ſwell, the breath will become ſhort, and many other dangerous and troubleſome ſymptoms by degrees will ariſe.

Montanus tells us, that he had ſeen a man dropſical in his arm, and another in his neck only; and that a dropſy therefore may be looked upon as an Abſceſs, which may happen to any part of the body. *(b)* This indeed is the only true light in which a Dropſy ſhould be viewed; for it will hereafter be plainly proved, that in a confirmed Dropſy the lymphatics muſt be burſt, and that they conſequently muſt diſcharge their contents upon the part affected, which is in reality an Abſceſs, tho' the blood-veſſels are not broken; for tho' lymph may at firſt be extremely clear and tranſparent, it will ſoon thicken when the membranes inflame.

Conſidered as an abſceſs.

Before I quit this head, I muſt beg leave to make one obſervation, viz. that in reading antient authors, whether Greek, or Latin, the word Hydrops is generally to be

(b) J. Bapt. Montan. conſil. p. 635.

be underſtood of the Aſcites, or Dropſy of the belly only. Indeed the generality of mankind, even at this day, take the word Dropſy in the ſame ſenſe. This I preſume is owing to Dropſies happening more frequently in this, than any other part of the body.

There is but one other diviſion of this diſtemper worthy to be mentioned here. With regard to the time of duration, Dropſies may be called acute or galloping; and ſlow or chronical. Inſtances of both kinds may be met with in the following hiſtories.

Accute and Chronical.

CHAP.

CHAP. II.

Anatomical histories of such persons, as have been adjudged to be dropsical in some part or other of the body while alive, or after death have been found so.

SECT. 1. In the head.

Hist. 1. A GENTLEMAN about 40 years of age, had a large tumor on the os lamboides, somewhat bigger than a goose egg. It was taken off by incision, and in it was contained a crude serum, and towards the bottom of it were some dregs that seemed to be a melicerous matter. *(c)*

Water on the outside.

Hist. 2. A boy at three months old, born of sound parents, had his head begin to swell,

Within the skull.

(c) Wiseman's surg. vol. 1. p. 219.

ſwell, and in leſs than five months more it was grown to be much larger than that of a man. The parts were ſo diſtended and the water ſo clear, that the child's head being placed againſt a candle or the ſun, the water might very eaſily be diſtinguiſhed. A young ſurgeon opened the fore-part of the ſkull on the right ſide, from which wound about a pint of clear water was diſcharged. This flux could not be ſtopped by any art, ſo that the child died in 36 hours, being then 9 months and 4 days old. *(d)*

Hiſt. 3. In the head of a child two years and a half old, there were found five quarts of a thin, pale, inſipid liquor, which lay between the dura and pia mater, and in the ventricles of the brain.

This child was always merry, and neither troubled with drowſineſs, pain in the head, want of appetite, or indigeſtion, only his ſight and ſenſe of ſmelling were not very acute. It was only troubled with gripes two or three days before it died. All the viſcera were ſound, but the guts were extremely full of *(e)* wind. This water has ſometimes

(d) Fabr. Hildan. cent. 3. obſ. 17.

(e) Philoſ. tranſ. abridg. vol. 3. p. 28, 29.

times been diſcharged at the ears, as in the caſe of a patient of Odonus at Bonona, who being ill of a fever with pain in the head, a large meaſure of clear water came this way from him. *(f)*

Hiſt. 4. The head of a boy about ſeven months old, without any preceding ilneſs, began to ſwell, and at the end of two years and a half he fell into a lethargy, and died; when the circumference was more than an ell and quarter and ſomething more from ear to ear over croſs. In the two anterior ventricles of the brain were nine quarts of water clear as cryſtal, the ſubſtance of the brain being diſtended like a ſack. The dura and pia mater were ſtretched in the ſame manner, but whole; and the ſkull was ſo very thin, that it ſeemed more like a membrane than a bony ſubſtance. There was no viſible paſſage to be found, whereby this water made its way into the head. All the other viſcera were ſound.

He eat, drank, and ſlept well; but the body was emaciated. He could neither hear, ſee, ſpeak or underſtand, and his arms,

(f) Marcel. Donatus, hiſt. med. mirab. l. 2. c. 12. p. 229.

arms, legs, and eyes, were often convulſed. (*g*)

Hiſt. 5. A boy about five years old had his head as big as a man's, ſo that he could not bear up the weight of it, but was forced to lye upon the bed continually 'till he died. In this head were five pints of water; which being taken away, there appeared nothing but an empty cavity, ſo that many thought there had been no brain. At length it was found to have loſt its ſpherical form by the preſſure of the water, and like a thick membrane to adhere cloſely to the arched circumference of the divided bones. This child retained his ſenſes all along, which ſeemed wonderful; ſince many have been ſeized with the falling-ſickneſs, lethargy, fooliſhneſs, and incurable madneſs, when by any accident the form of the brain has been altered. (*h*)

Hydatides. Hiſt. 6. That great ſcholar and ſtatesman, Thomas Sackville, Lord Buckhurſt, and

(*g*) Fabr. Hild. cent. 1. obſ. 10. See alſo cent. 3. obſ. 19. and C. Piſo de colluv. ſeroſ. obſ. 83 & 93.---J. Schenk. obſ. med. l. 1. p. 11.

(*h*) N. Tulp. lib. 1. obſ. 24. See alſo Philoſ. tranſ. abridg. vol. 3. p. 26.---Cheſelden's, anatom. p. 223. and Dr. Turner's art of ſurgery, vol. 1. p. 196, &c.

and first Earl of Dorset; who had been so long in favour with Queen Elizabeth, died at the council table, 13 March 1603, as he was taking a paper out of his bosom. Hydatides.

Many conjectures were made, and several reasons assigned, for his sudden death; but upon opening his head, there were found in it several little bags or bladders full of clear water, one or more of which Mr. Eachard (*i*) supposes might burst, and so instantly cause a total privation of sense, motion, and life.

Hist. 7. On the 18th of November 1692, a boy of 14 dying, who had long been afflicted with delirium and convulsions, a large glass of clear water was found extravasated in the anterior ventricles of the brain, which was the cause of all the symptoms, and his death *(k)*.

Hist. 8. On the 22d of December, 1739, died one Mrs. Bennet of Woolverhampton, who for many months had complained by fits of a pain in the right side of her head near the coronal suture, which she said might

(i) Hist. of Engl. b. 4. c. 1. p. 926.---Bale's diction. under the word Dorset.

(k) M. Saviard Obs. Chirurg. 89.

be covered with a half-penny. This was called Clavus Hyſtericus, and all her diſorder hyſterical. During the laſt month or ſix weeks of her life, whenever the pain was moſt ſevere, her urine came from her inſenſibly, and about a fortnight before her death, ſhe loſt the uſe of her left arm and leg. She generally, when in pain, turned her head backwards, her face being upwards, which I thought convulſive, but thoſe about her ſaid it was a cuſtom or trick which ſhe had acquired. Between the cerebrum and cerebellum was ſix or eight ounces of an inſipid water, clear as from a ſpring or ſtill, that would not coagulate with heat, but evaporated entirely, leaving only a ſmall quantity of ſalt behind. Under the dura mater where the pain had been, was a ſmall ſubſtance of the reticular, or polypus kind, that ran acroſs the ſubſtance of the brain towards the left ſide. For a long time, her pain came regularly, as an intermitting fever; but her urine was now without a ſediment. The bark, hyſteric medicines, bliſters, ſeton, cathartics, &c. were of no ſervice; and after the paralytic ſtroke, her urine had a large ſediment, but it gave her no manner of relief.

Hiſt.

Hiſt. 9. About twenty years ago one Dr. Congreve, of the ſame place, who during his illneſs, always hung his head downwards, and generally reſted it upon a pillow laid on a table before him, ſome time before he died became comatous, or rather ſtupid, taking little or no notice of any thing. In his head, under the dura mater, was about a pint of extravaſated lymph, which moved backwards and forwards as he moved his head. He was moſt ſenſible when the water lay backwards, and he was beſt when it preſſed forward on the cerebrum.

Hiſt. 10. A child about three years of age was ſubject to obſtructed viſcera, had a large head, which at length grew ædematous, as well as the face, and was ricketty; yet was as ſenſible as any child of its age, till within a day or two of its death. Upon diſſection, the cranium appeared of an uncommon make, very thick and ſoft: about the oſſa frontis and occipitis it was about half an inch thick, and in ſome other places it was more than three quarters. The two tables were exceeding thin, the intermediate ſubſtance was a looſe compages of bony ſtriæ, confuſedly paſſing from one ſide to the other; Between the tables.

or rather a kind of diploe, or cells made of the ſame ſtriæ, and filled, not ſo properly with a meditullium, as a cruor, or bloody ſerum. The callous part of the medulla was ſo very pappy, ſeparable, and as it were rotten, that it might more properly be called pulticular, for it would ſcarce ſuffer the touch, without being as it were marked thereby. *(l)*

On the outſide.

Error Repetition vide st Hist. 11

Hiſt. 11. A gentleman about forty years of age, had a large tumour on the os lambdoides, ſomewhat bigger than a gooſe egg. It was taken off by inciſion, and in it was contained a crude ſerum, and towards the bottom of it were ſome dregs that ſeemed to be a melicerous matter. *(m)*

Both within and without.

Hiſt. 12. An infant, about ten days old, had two tumours on the os lambdoides, much reſembling cupping-glaſſes. They had their origin from within the ſkull, their cyſtis from the dura mater, and the holes which they came out of were about the bigneſs of a half-crown. There was a great quantity of water within the meninges, and in the ventricles. A gelatinous ſubſtance was

(l) Turner's Art of Surgery, vol. 1. p. 196.
(m) Wiſeman's Surgery, vol. 1. p. 219,

was likewiſe found about all the veſſels on the upper part, and under the baſis of the brain. *(n)*

Wepfer, in his Treatiſe de Morbis Capitis, furniſhes us with a great many hiſtories of this kind, eſpecially in Obſ. 21, 23, 28, 29, 30, and 31; to which author the reader is referred for farther ſatisfaction.

OBSERVATIONS.

1. From theſe hiſtories we may ſee to what a prodigious ſize the heads of young children may be diſtended by a dropſical humour: that the very bones of the head themſelves may be altered by ſuch a one: and that the effects of it upon the brain, and conſequently upon the ſenſes, are very ſurpriſing, but not always the ſame.

2. Young children are often born with ſoft tumours upon ſome part of the head or other, which have by unſkilful ſurgeons been opened to the certain deſtruction of the patient; when a little patience, ſome ſpirituous application, and very gentle bandage might have given relief. Mr. Le Dran, in his firſt obſervation, gives us a hiſtory of ſuch a tumour on the parietal bone, which al-

(n) Wiſeman, ibid.

moſt equalled it in extent. For ſome time he doubted whether it was a falſe aneuriſm, or a hernia, that is a Dropſy of the brain; but by applying compreſſes dipped in brandy, which were only preſſed by the cap, and ſuffered to lie twenty-four hours without being removed, the tumour in a month's time diſappeared.

About fifteen years ago, the only ſon of a baronet in this country had, when born, ſuch a tumour on the os lambdoides, which a ſurgeon would very fain have opened. I luckily prevented the operation, and by ſuch a ſpirituous application, and very gentle bandage, it ſoon vaniſhed; the young gentleman being now alive and hearty.

SECT. II. *In the* EYES.

Hiſt. 13. A young man had one of his eyes as big as a hen's egg, very fair, without blemiſh, rheum or redneſs, and his ſight pretty tolerable, of which he was happily cured. This diſtemper Dr. Turbervile juſtly calls a Dropſy of the eyes. *(o)*

When the fibres of the lachrymal ſac, or the duct into the noſe is obſtructed, this ſac muſt be diſtended by the tears which regurgitate

(*o*) Philoſ. Tranſ. abr. vol. 3. p. 41.

gitate at the puncta lachrymalia. This diſeaſe ſome call a Dropſy, others a hernia of the lachrymal ſac. *(p)*

SECT. III. *In the* NECK.

Hiſt. 14. A young woman had her menſes at eleven years of age. At thirteen ſhe had a ſwelling in her right cheek, which fell down upon the glands of her neck, and grew to the ſize of a gooſe egg. This tumor would not give way to any kind of medicines, and therefore was at length opened; when a large quantity of perfectly clear water being diſcharged, it immediately ſubſided, and that ſide came to the ſhape of the other. The wound was not long in healing. *(q)*

SECT. IV. *In the* BREAST, *or* THORAX.

Hiſt. 15. One George Bennet, about fifty years of age, for ſome time laboured under a ſcirrhous liver, obſtructions of the ſpleen and meſentery; a continual pain in his head and right ſhoulder, a diſtillation upon his lungs, with a cough, and ſometimes a pal- Water within the ribs.

(p) Med. Eſſ. vol. 3. p. 284.
(q) River. Obſ. 76. c. 1.

pitation of the heart. On his being opened, the cavity of his breaſt was full of a ſerous humour; the right lobe of his lungs was almoſt conſumed; and the left, being very much inflamed, adhered cloſely to the pleura. In the pericardium was above four pound of bloody and purulent matter; but no viſible paſſage for it, either in the heart or pericardium. *(r)*

Hiſt. 16. A man forty-two years of age, who had long laboured under an ill habit of body, being ſubject to defluxions upon his lungs, was at laſt troubled with great ſhortneſs of breath, often felt a weight above the baſtard ribs, on each ſide his breaſt; could neither lie upon his back, nor his ſides, and when he turned him in bed, perceived ſomething fluctuate in his breaſt. When any one applied his ear to it, a noiſe might be heard like the bubbling of boiling water: his belly ſwelled, and he became exceeding coſtive. His urine had a white ſediment, his appetite was good, and he had little or no thirſt. His breaſt was found full of water, of a reddiſh colour, as if raw

(a) Fabr. Hildan. cent. 1. obſ. 43. See alſo N. Tulp. lib. 2. obſ. 16. and Marcel. Donat. de Med. Hiſtor. Mirab. p. 279.

raw flesh had been washed in it, and the abdomen was full of a yellow coloured liquid. *(s)*

Hist 17. A divine, by taking cold, was seized with a shortness of breath and a fever: he had a swelling in both the hypochondria, which was taken for the cause of these complaints. When opened, the liver was found to be swelled, hard, and full of holes, like a pumice stone, and in the whole cavity of the thorax was a vast quantity of clear water. *(t)*

Hist. 18. A noble peer was troubled with an extraordinary shortness of breath, and contrary to other asthmatics, was always better in bed, or lying horizontally, than sitting or standing: all the viscera were found perfectly sound, but both the cavities of the breast were full of water. *(u)*

Hist. 19. A gentleman of eighty years of age was every night seized with a shortness of breath upon his lying down in bed to sleep, so that he was forced to get up again imme-

(s) T. Bonnet's Sepulcr. Anatom. p. 358. See J. Schenk. Obs. Med. l. 2. p. 219.

(t) C. Piso de Col. Serof. Obs. 54. T. Bonnet. Med. Sept. Collat. p. 430.

(u) Philos. Trans. abrid. vol. 3. p. 77.

immediately, and fly to the window for air. In the whole cavity of his breaſt was ſuch a vaſt quantity of water, that the lungs and heart ſeemed to ſwim in it. (*v*)

Hiſt. 20. In a young gentleman, who had for a long time been afflicted with an inveterate aſthma and a violent fever, there was found an inflammatory tumour upon the liver, a Dropſy in one ſide of the breaſt, and that lobe of the lungs full of veſiculæ; which were filled with a tough, pellucid humour, not unlike the white of eggs (*w*).

Hiſt. 21. An officer of the army, after a long march in extreme cold weather, began to complain of a continual, fixed, girding pain in the left ſide of his breaſt: then he had a continual dry cough, and difficulty of breathing, which upon lying down in bed was ready to ſuffocate him for ſome hours. His pulſe was all along quick and ſoft: he had little or no heat, thirſt, loſs of appetite, or ſleep: his feet were cold, and at laſt his ſcrotum became ædematous. Upon laughing immoderately, he was ſeized with great anxiety and ſhortneſs of breath, which continued

(*v*) C. Piſo de Coll. Seroſ. Obſ. 52.
(*w*) Ibid. Obſ. 53.

tinued fifteen hours before he died. A membranous cavity or cyſtis covered all that ſide of his breaſt, which contained more than a gallon of ſerum; and all the other viſcera were ſound. Hoffman's ſyſtem, tom. 3. p. 146.

In a cyſtis or bag.

Hiſt. 22. A young woman about twenty-one years of age, having been long troubled with the green ſickneſs, heard one day, as ſhe was going down ſtairs, a frightful jolking in her breaſt like milk or water. Three years after, ſhe died; when there was found in her breaſt three pints of liquor like cream, contained in a bag, which was capable of holding as much more. This bag ran along the left ſhoulder, and ſo obliquely down to the right ſide of the midriff, with which it cloſed all along. It was for the moſt part thicker than the ſtomach, and in one place thicker than a man's finger. The mediaſtinum was either wholly waſted, or rather woven into this bag, and ſo was the pleura, ſo far as the bag reached. The right lobe of the lungs was conſumed, and one third part of the left. All the viſcera of the abdomen were ſound. During her ill ſtate of health, this

this woman could never lie on her left ſide. *(x)*

Matter.

Hiſt. 23. A ſtudent of Magdeburg was ſeized with an acute pain and ſwelling about the region of the liver. This was taken for an inflammation by his phyſicians. It increaſed daily, notwithſtanding all their endeavours; and continued ſo long, that it was thought the whole body of the liver muſt have been converted into pus. After he was dead, the liver appeared perfectly ſound; but the whole cavity of the thorax was full of matter, and almoſt all the lungs were conſumed. *(y)*

Water without the ribs.

Hiſt. 24. A woman about thirty-eight years of age, and of a good habit of body, had a tumor in her breaſt, which at firſt was as hard as a ſtone, but afterwards became red and painful, and at laſt broke; when there dropped out of the wound a bag conſiſting of ſeveral membranous coats. In it was about eight ounces of clear tranſparent liquor like water, which was a little fetid to the ſmell and bitter to the taſte. *(z)*

SECT.

(x) Philoſ. Tranſ, abr. vol. 3. p. 76, 77.
(y) J. Schenk. Obſ. Med. l. 2. p. 239.
(z) Med. Eſſ. Edin. vol. 1. p. 213.

SECT. V. *In the* PERICARDIUM.

Of the water in the Pericardium.

When we are in health the water contained in the Pericardium ſeldom exceeds two or three ſpoonfuls. In a perſon troubled with a palpitation of the heart, and a ſhortneſs of breath, C. Piſo *(a)* found the Pericardium diſtended ſo as to contain ſeveral pints of water. Vieuſſen *(b)* found a large quantity in the Pericardium of Lewis Aymar, which was of a yellow colour, and, as he proves, was ſeparated by the glands of that membrane. Fab. Hildanus met with four pound (*c*) of bloody matter in it; and Lanciſi, we are told, (*d*) once met with half this quantity. It has likewiſe been found vaſtly diſtended with *(e)* wind; and once it contained a large quantity of pus, *(f)* the baſis of the heart being ulcerated.

Hiſt. 25. One Boccatius, a ſoldier, died of a Dropſy, at thirty-two years of age, cauſed by drinking diſtilled ſpirits. Upon diſ-

(a) Obſ. 39. de Colluv. ſeroſ.

(b) De Nov. Vaſ. in Corp. hum. Syſtem, p. 75.

(c) And another time two pound. Obſ. 29. Cent. 2.

(d) Dr. Friend's Hiſt. of Phyſ. vol. 1. p. 197. and ſo did Gerard Blaſius. Obſ. Med. p. 31.

(e) Ibid. p. 267.

(f) Philoſ. Tranſ. abr. vol. 3. p. 69.

diſſection, the ſpleen was found to be four times bigger than it ſhould be: the inteſtines were livid, and almoſt ready to mortify: the liver was ſound, but ſomewhat hard. In the breaſt was four pound of clear water, and in the Pericardium three pound of a muddy, ſharp, corroſive liquor. During his illneſs this man could not lie upon the right ſide; had a violent ſhortneſs of breath, and made but little urine, which was always exceeding high coloured. (*g*)

OBSERVATIONS.

1. From theſe hiſtories it plainly appears, that a Dropſy of the thorax, or breaſt, may be cauſed, 1ſt, by catarrhs, or defluxions of humours upon the bronchia and lungs; from whence comes a cough, then a ſhortneſs of breath, and at laſt a Dropſy: 2dly, from an inflammation of the membranes within the thorax; or of the lungs and pleura; whence muſt proceed, 1. a cough; 2. an adheſion of the lungs and pleura; 3. a ſhortneſs of breath; and 4. a Dropſy: 3dly, from obſtructions in the ſpleen, liver, meſentery, &c. which are themſelves the effects

(*g*) Act. Med. Hafnienſ. vol. 1. T. Bonnet. Med. Sept. p. 704. and Sepul. Anat. p. 373.

fects of a viſcid and ſizy blood, eſpecially in the fair ſex. From theſe muſt proceed a ſhortneſs of breath, which will often end in this kind of Dropſy.

2. In diſorders of the thorax or breaſt, there is no certain ſign whereby we may diſcover what part within the cavity is affected, or in what manner. Here we find one perſon with a Dropſy in his breaſt is always beſt upon lying down in bed, and another is always worſe in an horizontal poſture. A tumor of one or both the hypochondria is generally a ſign of an obſtructed liver. Here we meet with this ſymptom when the liver is perfectly ſound, and only a collection of water above the diaphragm. Dr. Hoadly (*b*) mentions a dropſical perſon who could lie but on one ſide, yet had not a ſingle drop of water in either cavity of the thorax, his difficulty of breathing being cauſed by an adheſion of the lungs to the pleura.

3. The ſediment of urine, in Dropſies of the breaſt, gives no relief, though large, and of ever ſo long continuance.

4. The veſiculæ of the lungs may ſometimes be ſtuffed with viſcid matter; at others, the

(*b*) Lect. of Reſpiration, p. 189.

the whole ſubſtance of them may be conſumed; and large bags or cyſtiſes may be formed within the breaſt, that ſhall be capable of holding great quantities of water. Any one of theſe diſorders muſt deſtroy life, but no phyſician can by any ſymptom know which is the caſe; and if he could, I fear it would hardly be in his power to give relief.

SECT. VI. *In the* STOMACH.

Hiſt. 26. One Joan Delier, about forty-eight years of age, perceived her belly begin to ſwell, and ſo fancied herſelf with child; but at the end of nine months ſhe became ſenſible of her miſtake. For three years ſhe was able to do the common affairs of life, with little trouble; but then her belly grew ſo large that ſhe could no longer ſuſtain the weight of it. Afterwards ſhe fell into a fever, great ſhortneſs of breath, extreme thirſt, and in ſeven days died. In her belly was contained ninety pints or almoſt twelve gallons of clear water, which towards the laſt was thick, dark coloured, and had a ſediment. The peritonæum adhered ſo cloſely to the fore-part of the ſtomach, that it could not be ſeparated from it.

it. The omentum lay upon the upper part of the ſtomach, and the pylorus was almoſt level with the upper orifice, and juſt touched it; ſo that her food paſſed immediately from one orifice to the other, and ſo into the duodenum. The diaphragm was ſqueezed up, ſo that the lower part of the heart touched, lay upon, and preſſed it hard. The liver, ſpleen, meſentery, and all the other viſcera, were ſound and in their natural ſtate. In the middle of the pylorus was a bag, as thick as a man's thumb, and about the length of the long finger, which was full of clear water, and entered directly into the duodenum. The ſtomach was an ell in depth, the fibres of its inner coat were relaxed, and ſeparated one from another, and the coat itſelf was almoſt covered with hydatides. There was a direct paſſage for the water out of the ſtomach into the cavity of the abdomen; ſo that the diſſector very eaſily paſſed his probe out of the cavity of the latter into that of the former. *(i)*

SECT. VII. *In the* BACK.

Hiſt. 27. A young woman about twenty-five years of age, and of a healthy conſtitu-

D tion,

(i) River. Op. Med. p. 561. Th. Bonnet Sepulcr. Anat. p. 456.

tion, had a large tumor on the muſcles of her Back, without any inflammation. It was opened by inciſion, and a liquid diſcharged, which was at firſt clear as water, and then like honey, but was not contained in a cyſtis. The wound was healed in leſs than three weeks. (*k*) Riverius ſaw five of theſe caſes, whereof only two recovered.

SECT. VIII. *On the outſide of the* PERITONÆUM.

Hiſt. 28. A woman, after the time of her menſes, found her belly begin to ſwell, and ſo it continued to do till ſhe died. She complained of a pain about the groin, on the right ſide only. Upon opening the body, eighty pound, or ten gallons, of exceeding black blood was found between the muſcles of the abdomen and Peritonæum, and half as much clear water in the cavity. The left tube of the uterus was large, and contained a pound and a half of viſcid liquor, with a great quantity of whitiſh matter. (*l*)

Blood and water.

Hiſt. 29. A gentlewoman about twenty-eight or thirty years of age, had a tumor in the

(*k*) Wiſeman's Surg. vol. 1. p. 205.

(*l*) T. Bonnet. Sepulcr. Anat. p. 453. & Med. Sept. collat. p. 705.

the hypogaſtric region, which after a long time was pierced with a trochar, and a large quantity of yellow, glutinous lymph was diſcharged. This operation was often repeated, as often as the part filled; and ſhe found no inconveniency from the tumor. At length ſhe went a journey three hundred leagues, was thrice tapped during the time of it, and at her return had a fever, and made bad urine. A puncture being neceſſary, the fluid was now like milk, and ſo taken at firſt for chyle; but by ſtaining a ſilver porringer black, was certainly pus. After five months the tumor filled again, when the lady, willing to get a perfect cure, hearkened to a quack, who ſuffered the matter to break through two holes into the abdomen, which in ſeventeen days deſtroyed her. The cyſtis, which at firſt contained this lymph, afterwards by the feveriſh heat made matter, was ſituated between the muſcles of the abdomen and peritonium. (*m*)

(*m*) Le Dran. Obſ. Chirurg. 65.

SECT. IX. *Within the* PERITONÆUM.

Of the duplicature of the Peritonæum.

Anatomiſts are greatly divided in their opinions concerning the duplicature of the Peritonæum. Columbus would make the world believe that he was the perſon, who firſt diſcovered this membrane to conſiſt of two parts; but Galen ſays this duplicature (*n*) was a thing well known long before his time. Picolhomini, Riolan, Veſlingius, and many others, mention this duplicature as a thing certain; whilſt Ruyſch, Marchetti, and Donglas are as poſitive on the other ſide. The laſt of theſe authors (*o*) ſeems to demonſtrate that this membrane is every where ſingle; that the membrana adipoſa, which ſpreads itſelf all over it, has been the occaſion of this miſtake; and that this membrana adipoſa, or celluloſa, is the true ſeat of Dropſies in this part of the body. Be this as it will, ſince the authors of the following hiſtories mention them as ſeated in the duplicature of this membrane, I ſhall not change their expreſſion; but leave that to the reader's imagination, who may eaſily conceive the difference, it being, I think,

(*n*) τὸ διπλοῦν περιτοναῖον.

(*o*) Donglas on the Peritonæum.

think, a matter of more curiosity than use; for whether in a healthy or sound body it is one membrane or two, it is certainly capable of being divided into two parts by a dropsical humour, as the following histories will prove beyond contradiction.

Hist. 30. A young woman about seventeen years of age, unmarried, and reputed a virgin, had her belly so swelled in three months time, that many suspected her being with child. She was of a florid complexion, and strong habit of body, had a good stomach, and all her evacuations regular, and was free from thirst, shortness of breath, or any symptom of a Dropsy. For nine months she consulted both physicians and mountebanks to no purpose; when the ill symptoms appearing, she soon became like a skeleton, and refusing to be tapped, died in three months after. The Peritonæum was turned into a bag, by a separation of the interior from the exterior membrane, which so enclosed a large quantity of water, that not one drop of it could pass into the abdomen. The nervous body of the Peritonæum, naturally as thin as fine silk, was here thicker than the hide of an ox. This bag being removed, the viscera appeared in

view, of a pale decayed colour; and in the bag was contained about twenty gallons of a ſubſaline and ſomewhat auſtere ſerum. In the hypogaſtric region the membrana adipoſa was above two inches thick, and ſeemed to be no other than a congeries of little bladders contained in their proper capſulæ, and filled with a coagulated lymph. The thighs, legs, and feet, were extremely ſwelled, and the neck, face, arms, and hands, as much emaciated. The liquid contained in this bag did ſomewhat reſemble water wherein fleſh, newly killed, hath been waſhed, only it was of a little deeper red, and of a more craſs hypoſtaſis. (*p*)

Hiſt. 31. A married woman, about forty years of age, who lived three miles from Shrewſbury, had the common reaſons to believe herſelf with child. At the end of nine months ſhe had the uſual ſigns of labour; but the pains ſoon left her, and at the end of the next nine months ſhe was ſiezed after the ſame manner. From this time her belly increaſed daily, till at length it was forced to be ſupported by a ſtool, the weight of it being more than ſhe could bear.

(*p*) Philoſ. Tranſ. abr. vol. 1. p. 140. T. Bonnet. Sepul. Anat. p. 492, &c. Fabr. Hildan. obſ. 58. Cent. 4.

bear. Thus ſhe lived near thirty years, without any other conſiderable complaint. In the duplicature of the Peritonæum was found thirteen gallons and a quart of water, which was ſaltiſh, had ſome little fat upon it, and towards the latter running, was tinged with blood. There was alſo a kind of a bladder lay acroſs the fundus uteri, which was divided into two parts by a cartilaginous ſubſtance. In the one of theſe was a pint and a half of water, and in the other about three quarters of a pint. The liver, and all the other viſcera, were ſound, but forced into an incredible ſmall compaſs, and the muſcles of the abdomen were ſo dilated as to be ſcarce diſcernible. (*q*)

Hiſt. 32. A woman had her belly ſwell from her infancy, but at the time of puberty, her menſes not coming regularly, it grew to a prodigious ſize; yet ſhe could walk, ride, or go up a hill, without much difficulty. About ſeven years after this ſhe died, when there was found near fourteen gallons of water incloſed between the two coats of the Peritonæum, each of which was grown as thick as a man's little finger.

(*q*) Philoſ. Tranſ. abr. vol. 4. part 2. p. 123, 124. Bonnet. Med. Sept. Collat. p. 701.

All the viſcera were ſound, only the left kidney was ſomewhat larger than it ſhould be; and the tubæ fallopianæ were ſwelled, and ſo entirely cloſed up, that they could not be blown through. (*r*)

Hiſt. 33. A woman having her menſes irregularly, when about forty years of age became hyſterical, and frequently complained of pain and ſtraightneſs in the hypogaſtric region, with a protuberance of the navel. About four years after, ſhe complained of a freſh ſwelling about the uterus, when the navel became as big as a man's fiſt, and the abdomen increaſed prodigiouſly. She now had continual violent pain in her loins, and voided ſeveral ſtones of different magnitudes. She was very thirſty, drank much, and made but little urine, which was always of a pale colour, and attended with pain. At forty-eight, when her menſes left her, ſhe voided a great deal of coagulated blood by the womb; whereupon her appetite

(*r*) N. Tulp. obſ. 44. lib. 4. Dr. Leigh, in the caſe of Mrs. Heywood, (Natural Hiſt. of Cheſhire, &c. p. 72. b. 2.) found ſeventy pints of water in her belly, the omentum conſumed, and the peritonæum full five inches thick, in whoſe duplicature was a large ſacculus full of ſchirrous glands, veſiculæ, &c.

appetite declined, her breath grew ſhort, and not long after ſhe died. The upper parts of her body were very much emaciated, and the lower not very greatly ſwelled. About twelve gallons of water were diſcharged by a wound made near the navel, of the colour of ale, which by its ſparkling ſeemed to be ſaltiſh. A bag was formed of the duplicature of the Peritonæum, which being removed, all the viſcera appeared to be ſound, except the right kidney, which was flabby, and waſted: the ſpleen, alſo, was leſs than it ſhould be, and ſtuck ſo cloſely to the internal membrane of the Peritonæum, that it could not be ſeparated from thence without much difficulty. More examples of this kind of Dropſy may be ſeen in Nuck's Adenographia curioſa.

SECT. X. *In the* OMENTUM.

Hiſt. 34. A poor woman had her belly ſwelled to ſuch a degree, that ſhe was looked upon to be far gone in a dropſy. Upon diſſection, all the viſcera appeared to be ſound and in their natural ſtate, except the Omentum, which was large and altogether like a glandulous ſubſtance. In the middle

middle of it was contained fifty-ſix pints, or ſeven gallons, of fetid naſty matter. (*ſ*)

Hiſt. 35. Chriſtian Seton, ſubject to an Eryſipelas, at thirty-nine, had her menſes ſtopped, and three years after, viz. in July 1727, her belly began to ſwell, as her legs, alſo did a month after. By October her belly was ſo big, as to reach down beyond the middle of her thighs when ſitting: her legs and thighs were double their natural thickneſs, and the upper part of her body was greatly emaciated: ſhe had a perpetual cough, a moiſt tongue, was thirſty and coſtive; made little urine, breathed very ſhort, and had water in her belly, which fluctuated. Three gallons of water were let out by tapping, when it ſtopped. Then ſhe was purged every fourth day, and took alterative medicines; when ſhe paſſed great quantities of water by ſtool and urine, and the ſwelling abated; but in February 1728, by taking cold it increaſed again. On the ſecond of July, by a large trochar, was taken away eight quarts of mucus and pus, which followed alternately; and on the fourteenth, four

Mucus and matter.

(*ſ*) Fab. Hildan. Obſ. 62. cent. 3. See Bonnet's Sepulcr. Anat. p. 443. and Marcell. Donat. de Med. Hiſt. Mirab. p. 673.

four quarts of purulent matter: ſhe died ten days after. This proceeded from the Omentum, which conſiſted of two thick coats or laminæ, and contained veſiculæ full of water, mucus, and ſteatomatous matter, Med. Eſſ. Eden. vol. 4. p. 428.

OBSERVATION.

In this account we have not the weight of the tumified Omentum; but allowing it to weigh eighteen pound, there was, in twelve months time, generated one hundred and forty pound of water, mucus, pus, and membranes, in the cavity of this woman's abdomen; beſides what was contained in the ſwelling of her legs and thighs, and alſo what ſhe parted with during the time of her amendment, when ſhe had large evacuations, both by ſtool and urine. This was three of the twelve months; ſo that unleſs ſhe was a very large woman, in nine months time as much extraneous matter was added to her belly as the whole weight of her body before ſhe fell ill.

SECT. XI. *In the* MESENTERY.

Hiſt. 36. A young man was thought to die of a dropſy, which had been two years in

in coming. The liver, ſpleen, and ſtomach appeared ſound; the pancreas fat, and ponderous; but the kidneys on each ſide were wanting. Their uſe was ſupplied by the Meſentery, whoſe glands were filled with ſerum. The ſubſtance or body of it ſpread over the greateſt part of the abdomen, and weighed eighteen pounds. *(t)*

Hiſt. 37. In a young woman that died of a dropſy, the Meſentery weighed twenty pounds; and in it were a great number of veſiculæ full of clear water, and covered with a common membrane. This ſwelling was three years in coming. *(u)*

Hiſt. 38. A young woman had a tumor on each ſide of the abdomen; ſo that many thought ſhe was with child. There was found a two-fold ſwelling in the Meſentery, one part whereof was hard, and in the other was a collection of water and matter together. *(v)*

Water and matter.

SECT.

(t) N. Tulp. Obſ. 32. Lib. 2.

(u) Ibid. Obſ. 34. See Amb. Parey's Works, b. 23. ch. 36. here it weighed ten pound and a half, and was of a ſchrophulous nature, ſome of the veſiculæ being filled with matter like oil, honey, fat, or ſuet; others with clear water, &c.

(v) Ibid. Obſ. 33. T. Bonnet. Sepulcr. Anat. p. 413.

SECT. XII. *In the* LIVER.

Hiſt. 39. In a woman that died of a Dropſy, the gibbous part of the Liver was entirely waſted, and the coat of it about a quarter of an inch thick, which contained about five gallons of a groſs yellowiſh fluid, in which were many hydatides about the ſize of gooſe-berries, and ſome pieces of matter of as bright a red as vermillion. This began with a pain in that part when ſhe was about fourteen. At firſt it only came upon her monthly; but at laſt it was continual. Her belly conſtantly increaſed till ſhe died, which was in the twenty-eighth year of her age, having never had her menſes in her whole life. The reſt of the viſcera were all ſound; there was not the leaſt ſwelling in any of her limbs; nor the leaſt yellowneſs in her ſkin. (*w*)

SECT. XIII. *In the* SPLEEN.

Hiſt. 40. In a boy that died dropſical, at nine years of age, the ſpleen weighed, together with the hydatids contained in one and the ſame membrane, above three pounds; and

(*w*) Cheſelden's Anat. p. 202. See Leigh's Natural Hiſt. of Cheſhire, &c. b. 2. p. 71.

and in a man the ſame author found a Spleen that weighed five pounds and two ounces. (*x*)

SECT. XIV. *In the* ABDOMEN.

Hiſt. 41. One Dorothy Poiane, upon a motion to ſtool, in September, diſcharged, per anum, ſo great a quantity of clear lymph as filled a large veſſel, upon which ſhe fainted away; but upon taking ſome bread, and a glaſs of ſack, recovered, without any ill conſequence. She had had, all the ſummer, a continual and almoſt intolerable thirſt, which ſhe endeavoured to allay by drinking cold water, (*y*)

Hiſt. 42. Mrs Dyer, aged thirty years, of a good conſtitution, was ſeized with a pain in her belly, like the cholic, which, in time, proved an Aſcites. This began in January, and ſhe died in November following. Between the ninth of March and the thirtieth of October, ſhe was tapped nineteen times, and two hundred and fourteen pints and a half of water were taken from her by thoſe ſeveral operations. In her belly were

Water within.

(*x*) Ibid. p. 159. See Philoſ. Tranſ. abrid. vol. 3. p. 85. Bonnet. Med. Sept. Collat. p. 705.

(*y*) Marcel. Donat. c. 20. l. 4. p. 417.

were found fourteen pints of greeniſh ſerum, mixed with a purulent matter, not a little fetid. The inteſtines were livid, eſpecially the colon, and adhered in many places to the peritonæum. The Omentum was black, and almoſt conſumed; and the gall-bladder was ſo diſtended as to tear the liver by its weight, which was ten pounds and twelve ounces, there being no paſſage to let out the matter it contained. Seven pints of a black liquor, like coffee, were let out of it by inciſion; which, having ſtood all night in a baſon, let fall about a quart of thick yellow fæces. During this illneſs ſhe had but little thirſt, and voided almoſt as much urine as ſhe drank. (*z*)

OBSERVATION.

From the foregoing numbers it is plain that two hundred and thirty-ſix pints, or near thirty gallons of water were diſcharged into the abdomen, in the ſpace of ten months; that is near a pint every twenty-four hours.

Hiſt. 43. A ſea captain was tapped twenty-nine times, in the compaſs of three hundred

(*z*) Phil. Tranſ. abrid. P. 4. vol. 2. p. 85. See Dr. Leigh's Nat. Hiſt. of Cheſhire, b. 2. p. 71.

hundred fifty-eight days, by which operations more than ſeventy gallons of water were taken from him; ſo that he filled at the rate of a pint and a half every twenty-four hours. About three weeks before he died, he began to be troubled with violent rheumatic pains, and bled frequently at the noſe. The liver in this gentleman was perfectly ſound. (*a*)

Hiſt. 44. T. Bonnet gives us a hiſtory of a religious perſon, who died of this diſtemper, but lived till the glands of the meſentery and kidneys were all putrified; the liver full of apoſtumations, and the ſpleen covered with a tartarous matter like chalk or mortar. (*b*) Pancirolus frequently found both the liver and ſpleen covered with a white matter, like the white of eggs when hard boiled, which Fuller (*c*) ſays was the lymph gelatiniſed, and appeared ſtrange to this author, becauſe the lymphatics were not diſcovered till a year after his book was printed.

A tartarous matter on the viſcera.

Hiſt.

(*a*) Cheſelden's Anat. p. 200.

(*b*) Med. Sept. collat. p. 703. See alſo Fabr. Hildan. Obſ. 44. Cent. 2.

(*c*) Fuller's Pharmac. extempl. under hydropic wine.

Hist. 45. A labouring man about twenty-four years of age, being thirsty, drank a large draught of cold water in the time of harvest; whereupon he was seized with a continual fever, which first turned to a tertian, and then to a quartan ague: at the end of eight months, he died with a great belly, when there was found in the Abdomen above eleven pints of white, well digested, sweet matter. The viscera were all sound, except the spleen and liver, which were schirrhous; nor could any wound or ulcer be found from whence this matter might proceed. (*d*)

Digested matter.

Hist. 46. A young woman, about thirty, fell into an intermitting fever, and a total suppression of her menses: whence a pain and tumor in the right side of her belly, which daily increased till it became bigger and harder than that of a woman in her last month. After a year she was looked upon to be dropsical, her honesty having, till then, been suspected. At the end of fifteen months she was tapped, when there came

 from

(*d*) Fabr. Hildan. Obs. 57. Cent. 2. See T. Bonnet's Sepulc. Anat. p. 551. Schenk. Obs. 5. Lib. 3. p. 496. mentions such another from Platerus, where the matter fell from the lungs.

from her, to the great ſurprize of thoſe concerned, a pint and a half of well digeſted, ſweet matter. The next day the ſurgeon took away as much more, when perceiving ſome hairs, four or five inches long, iſſue forth with the matter, he endeavoured to pull them away, but could not, the woman complaining that he would draw out a piece of her belly. She died four days after this, when ten quarts of the ſame matter flowed through the tap-hole. Upon diſſection, there was found a lump of hair as big as a half-penny loaf, wrapped up in a fat kind of matter which grew from the right ſide of the womb about eight inches long; where was alſo a protuberance as big as a wallnut, and in it a perfect dog-tooth, ſocketed in a bone of a triangular figure, in which, alſo, another tooth was growing. (*e*)

With a lump of hair,

and teeth.

Hiſt. 47. A ſtrong, hearty man, about forty, was ſeized with a violent fever, ſhortneſs of breath, and convulſions, which ſoon killed him, the Abdomen being greatly diſtended. Upon diſſection, there was no fat under the ſkin, the membrana adipoſa being like parchment, and the fibres of the muſcles

Fat.

(*e*) Philoſ. Tranſ. abrid. vol. 4. P. 2. p. 110.

muſcles were ſo dry, hard, and tenſe, that the beſt knives would ſcarce touch them. The inteſtines were very lax and flaccid, and ſwam, as it were in melted fat, much like thick oil of olives. The liver was large, the gall-bladder larger in proportion, and full of bile; the lungs adhered to the ribs, and were very flabby and black. There were alſo two polypuſſes, one in the aorta, and the other in the vena cava. (*f*)

OBSERVATION.

This is a very ſurprizing hiſtory, and I believe not to be accounted for by any ſyſtem of philoſophy, which has hitherto been invented. Baglivi would have us believe, that the fat was melted by the convulſive motion of the muſcles; but----credat Judæus Apella, non ego.

Hiſt. 48. A child, about two years old, had an inflammation on his lungs; for which being ill treated by an apothecary, he fell into an hectic fever; his belly ſwelled, and the extreme parts were emaciated even to the degree of a maraſmus. He had all along, a briſk, healthful look, and a lovely countenance, without the leaſt tincture of Chyle.

(*f*) Baglivi de Fibra Matrice. p. 6.

yellowneſs, and a good, or rather greedy appetite, to the day of his death. While alive, ſeveral pints of chyle, ſuch as is contained in the chyle duct itſelf, were taken away by tapping; and when dead, the lungs appeared to be ſound; but there were a great many glands, pretty large and hard, behind the wind-pipe, which made a preſſure upon the duct almoſt in that part where it arrives at the ſubclavian vein, and had ſtraitened it as if it had been tied with a ſtring. By this means, the chyle could not mix with the blood, but iſſued in a continual ſtream into the Abdomen. (*g*)

Hiſt. 49. Mr. Saviard, obſ. 3, mentions a girl of eighteen, who, in two hundred and forty-ſix days, viz. from July 2, 1699, to the fourth of March following, had three hundred and ſix quarts of chyle, or water like milk, with cream ſwimming on the top of it after ſtanding, taken from her by being tapped twenty-two times. Till the nineteenth operation ſhe neither loſt her fleſh, nor ſtrength: ſhe eat and drank, had ſtools, and made water well; but then, by taking a doſe of jalap and gamboge, which worked briſkly, her fever increaſed; ſhe became much worſe; and by taking half

Chyle.

(*g*) Dr. Moreton's Phthiſiolog. p. 49.

half a drachm of mecoahcan after the twenty-firſt operation, which had the ſame effect, ſhe died in a few days. Upon opening the body, the omentum was entirely conſumed; the ſtomach and inteſtines were vaſtly diſtended with wind; the peritonæum, liver, and meſentery, were each of them full of preternatural glands, and the latter was grown to a very great ſize; at the beginning of the jejunum was a membranous bag full of the ſame milky liquor; and from hence a fiſtulous hole and paſſage, of the bigneſs of a gooſe quill, led into the middle of the meſentery: all along the ductus thoracicus were ſeveral glands full of the ſame liquor, one above another, joined together like beads in a necklace.

Obſervation.

Some part of the time, this young woman filled at the rate of two quarts a day; for ſhe was tapped on the fifteenth of October, and on the twenty-third ſixteen quarts were taken from her again: but more than a quart of this milky liquor, every day, paſſed into the abdomen during the whole two hundred and forty-ſix days.

Here it is plain, obſtructions of the meſentery laid the foundation of this Dropſy; and that in time, all theſe preternatural glands being formed, the ſtream of the lymph and chyle being turned, they paſſed through this fiſtulous pipe into the cavity of the Abdomen.

Hiſt. 50. A nun, at fifty-five years of age, never had her menſes, by reaſon of an imperforated hymen. For many years before her death, ſhe complained of a pain in her groin; and at length her belly ſwelled, and killed her. She had a lively, florid complexion to the very laſt, and for the moſt part complained only of a pain above her her left ankle; but nothing was there to be ſeen amiſs. When ſhe was opened, the Abdomen was full of urine; the uterus was ulcerated, and almoſt conſumed; the bladder was much in the ſame condition, with ſome holes in it; but all the other viſcera were found. (*b*)

Urine.

Hiſt. 51. In 1567, a woman died of a dropſy at Paris. After death, there was not found any vacuity in the Abdomen where there was not a veſicula, or little bladder. The kidneys, bladder of urine, the womb, ſtomach,

Hydatides

(*b*) J. Schenk. Obſ. Med. lib. 3. p. 493.

ſtomach, inteſtines, heart, pericardium, liver, and ſpleen, were all full of them. They contained a citron-coloured water, which kept ſweet more than twenty days, and were above eight hundred in number. (*i*)

Hiſt. 52. A countryman, being ill of a Dropſy, had an abſceſs formed on the right ſide of his belly, which was opened by inciſion, and almoſt an infinite number of little bladders full of water were taken out of the wound; more than two hundred a day, for many days together, by which means he perfectly recovered. *(k)*.

OBSERVATION.

This ſurprizing hiſtory is quoted by Nuck in his Adenographia Curioſa, p. 125, but not with ſo much exactneſs as we might expect from ſo curious an author. Dr. Allen *(l)* mentions a young ſailor, from whom more than eighty ſuch veſiculæ were taken, ſome of them being larger than an hen's egg; and in the Philoſophical Tranſac-

(i) D. Sennert. Prax. Med. Schenk. Obſ. Med. l. 3. p. 413, 414. and Marcel. Donat. p. 688.

(k) River. Op. Med. p. 582. Obſ. 15. See ſuch another Hiſtory in Schenkius, p. 392. Obſ. 4.

(l) Synopſ. Medicin. vol. 1. p. 341.

tions, *(m)* we meet with a perſon, who parted with ſeven or eight thouſand of them after the ſame manner. Schenkius (*n*) obſerves, very juſtly, that moſt men recover from whom ſuch hydatides have been taken by inciſion.

Water with them.

Hiſt. 53. A maiden lady, fifty-two years of age, complained of a hard ſwelling in the regio hypogaſtrica on the right ſide. The belly ſwelled mightily, the body emaciated very much, and, a few days before ſhe died, her legs began to ſwell. In the Abdomen were eighteen gallons of a viſcous, darkiſh, humour. The pericardium was thick, and filled with veſiculæ of different magnitudes on both its ſides, and the matter contained in them was of different colours and conſiſtencies, being like jelly, white of eggs, gall, honey, and that of true meliceris. The right kidney had a particular ſort of Dropſy; two polypuſſes were in the heart; two pretty large ſtones in the gall-bladder; and all the reſt of the viſcera were in their natural ſtate. *(o)*

Hiſt. 54. A woman complained, about four years together, of an unequal ſwelling of

(m) Philoſ. Tranſ. No. 370.
(n) Obſ. 4. p. 395.
(o) Philoſ. Tranſ. abrid. vol. 4. p. 86.

of her belly, for which ſhe took all ſort of medicines, cathartic, diuretic, &c. at laſt ſhe thought herſelf with child, and, in time, brought forth a hearty, ſound infant; yet her belly was ſo far from abating upon this, that it daily increaſed, with great and continual pain. Thus ſhe continued four years more, when her belly meaſuring three ells about, ſhe departed. There was in the Abdomen two hundred and ſixty-four pound or thirty-four gallons of water, included in a bag, which adhered ſlightly to the peritonæum, ſternum, os pubis, and the vertebræ of the loins and kidneys; ſo that it was no eaſy thing to know from whence it had its origin. In the right hypochondrium was a tumor, as big as two fiſts, compoſed of many glands and hydatides. The reſt of the viſcera were all ſound. *(p)*

In abag.

SECT. XV. *In the* WOMB.

Riverius tells us, that he knew a noble lady who voided ſix or ſeven pound of thick phlegm

(p) A. Nuck. Adenograph. curioſ. p. 127. See alſo Fabr. Hildan. Obſ. 58. cent. 4. Ruyſch Obſ. 27. T. Bonnet's Med. Sept. Collat. p. 712, &c. Sepulcr. Anatom. p. 529, 533, 542.

phlegm in one day's time by the womb *(q)*; and ſays Veſalius (lib. 5. de Corporis humani Fabrica, cap. 9.) diſſected a woman, in the cavity of whoſe womb was one hundred and eighty pound, or more than twenty-two gallons of water, the mouth of it being cloſed and callous. *(r)*

In the cavity.

Hiſt. 55. Mauritius Cordæus (Comment. in Libr. 1. Hippocr. de Morbis Mulier.) gives a hiſtory of a woman who had a Dropſy of the womb, wherein were contained a great number of veſiculæ, full of a citron-coloured water.

Hydatides

Hiſt. 56. A woman had a Dropſy of the womb. As often as the time of her menſes came about, ſo often ſix or eight baſons full of citron-coloured water, exceeding hot, came from her, through the neck of the womb. Upon this her belly fell (in two days, according to Foreſtus, *(ſ)* and then the menſes followed, as when ſhe was well. The water was all the next month in gathering,

(q) Oper. Med. p. 390. See Schenk. Obſ. 3. l. 4. p. 597.

(r) River. ibid. Hoffman's Syſtem, vol. 3. p. 160. quotes this hiſtory, and calls it ſixty Menſuras Auguſtanas.

(ſ) P. Foreſt. Obſ. p. 240, 654.

thering, and then flowed at the uſual time of her menſes, as before. She was cured of this diſorder, and afterwards bore a live child. *(t)*

Hiſt 57. A noble lady, who bore children, though dropſical, had a large quantity of ſerous humour conſtantly came away from her after delivery, whereupon her belly always fell; but when ſhe left off breeding, it grew to a prodigious ſize *(u)*, and was, I ſuppoſe, the occaſion of her death.

Hiſt. 58. I know a gentlewoman whoſe belly, when about forty, was grown as big as if ſhe had been with child, and ready to be delivered. After ſome time, ſhe found that ſhe was indeed with child, and, upon quickening, ſhe had her menſes, which ſhe never uſed to have, during her pregnancy. When theſe had done flowing, a water began to come from her, and was daily diſcharged till the time of her delivery. The whole amounted to ſeveral gallons; and by this means ſhe was, for ſome time, freed from her Dropſy; though it returned again, upon her being with child, twice more

(t) J. Fernel. de Morb. Part. p. 438. See Schenk. Obſ. Med. l. 4. p. 596.

(u) Dr. Strother's Pharmac. Pract. p. 8.

more in the ſame manner. Each time ſhe carried her big belly to the full end of her reckoning; but none of the children lived, nor had ſhe any water come from her at the time of her delivery, as is common in healthy women. She is yet (*v*) alive, but has not bred theſe four or five years, and her belly has not increaſed ſince her laſt lying in.

Hiſt. 59. A woman, at the time of her menſes, for twelve years together, was ſeized with convulſions and hyſterics. About three years before ſhe died, there was a phlegmon formed in the Womb, which came to ſuppuration, and brought her into an hectic fever. When dead, the Womb was full of water, together with hydatides, filled with a purulent matter: a great quantity of water was likewiſe in the abdomen. (*w*)

Hiſt. 60. A woman about forty-four years of age, ſome time after ſhe was married thought herſelf with child. Her menſes ſtopped, and ſhe could, at pleaſure, ſqueeze a whitiſh, pale liquor out of her breaſts,

(*v*) So ſaid in 1740.

(*w*) C. Piſo de Col. Seroſ. Obſ. 125. See alſo Schenk. Obſ. Med. l. 4. p. 596.

breaſts, which ſhe took for milk. Her belly grew very big, and at the end of nine months ſhe was ſeized with labour-pains, as ſhe imagined. Theſe ſymptoms, however, ſoon went off again, and her belly daily increaſed. For three years ſhe continually took medicines, without any manner of relief, and then died, being very much emaciated. There was found above two gallons of clear water, included in a tranſparent membrane on the external tunic or coat of the womb. *(x)*

In the coats.

Hiſt. 61. A woman complained of great pain in her belly and loins, which increaſed ſo much upon lying down, that ſhe was forced to ſit almoſt upright in bed. Her belly had daily increaſed for twenty-five years, and at the time of her death was monſtrouſly large. All the viſcera were ſound. In the abdomen were four pints of a very putrid liquor, and a large tumor, which ſpread itſelf all over the belly. This was the Womb, which was thought to weigh near forty pound. The fore-part of it was not above an inch thick; but on the ſides and back it was near twelve inches. The

In the ſubſtance or body of it.

(x) Philoſ. Tranſ. abrid. vol. 3. p. 205. See Bonnet's Sepult. Anat. p. 461, &c.

The ſubſtance of it was partly ſchirrhous, and partly glandulous; and in the middle was a thick putrid matter, of a black colour and very fetid. This woman, at the beginning of this diſorder, thought herſelf with child, and in the third month had a bladder full of water come from her. Upon this, ſhe had a flooding for ſix or ſeven months; upon the ſtopping of which ſhe began to ſwell, and was thought to die of an Aſcites. *(y)*

In a bag, whole.

Hiſt. 62. A gentlewoman, with child, was ſeized with labour-pains at the end of five months, when there came from her above ten pound of water included in a ſtrong membrane. She went out the remaining part of her time, and brought forth a ſtrong hearty child *(z)*. Nine quarts of water came thus from the wife of Fabr. Hildanus at the time of her delivery, without one drop of blood, about half an hour before her real water broke *(a)*. She recovered,

(y) T. Bonnet's Sepulcr. Anat. p. 460. Fab. Hild. Obſ. 49. c. 5. gives a hiſtory of one that weighed eighty-ſeven pound, in which were ſeveral kinds of liquids, and hair almoſt like wool.

(z) Fabr. Hildan. Obſ. 53. cent. 2.

(a) Ibid. Obſ. 56. See T. Bonnet's Sepulc. Anat. p. 459.

covered, without the uſe of medicines, and this proved the moſt hearty of any of her children.

Hiſt. 63. A woman, after ſuppreſſion of her menſes, had, at ſeveral times, a ſubſtance came from her by pieces, containing many veſiculæ, which were filled with a yellow water and wind. They were as many as would have filled a water bucket: ſhe did well, and afterwards bore children *(b)*. By pieces.

Hiſt. 64. A woman, twenty-ſeven years of age, died the third day after her delivery. Her belly was ſwelled to a prodigious ſize; her ſuperior parts were very much emaciated; and the inferior, feet, legs, and thighs, were as much ſwelled. Theſe eaſily retained any impreſſion made upon them by the fingers, and upon the leaſt rubbing diſcharged ſo much water, that a great deal of linen was often wet in drying it up. In her belly was almoſt ſeventeen gallons of viſcid, ſlimy water, in colour and conſiſtence very much reſembling a brown, thick, and roapy ſyrup. This was included in a thick, ſtrong membrane, as in a bag, which was nothing elſe but the membrane

(b) N. Tulp. Obſ. 32. lib. 2.

In the ovaria, left.

membrane of the ovarium covering the ova. It had its origin on the left ſide, and ſpread itſelf all over the inteſtines to the right. The reſt of the viſcera were ſound, and in their natural ſtate (*c*).

Hiſt. 65. A woman of fifty, who had been married, but never had a child, found her belly begin to ſwell about four years before her death. In the abdomen was a heap of bladders, of ſeveral ſizes, in which were liquors of different colours and conſiſtencies. In ſome it was brown and thick, with a ſediment of the colour of amber; here it was like mucilage of quince ſeeds; there like the white of eggs; and in other places like ſtarch newly boiled. The largeſt of theſe bags weighed about twenty pound, and the leaſt was as big as a walnut. They all proceeded from the left ovary, the right being ſmall, white, and, in a manner, dried up. The liquid contained in theſe veſiculæ weighed one hundred and twelve pound and they, with the uterus, weighed twenty-five pound more (*d*).

Hiſt. 66. A parallel caſe I once ſaw in a poor woman, who being thirſty in the time of

(*c*) Philoſ. Tranſ. abrid. vol. 4. part 2. p. 113, &c.
(*d*) Ibid. vol. 3. p. 306.

of harveſt, drank a large draught of cold ſpring water, and was immediately ſeized with a violent pain in her left ſide, like the cholic. In a few days her belly began to ſwell; and when ſhe died, there was found a vaſt number of veſiculæ, which came from the ovary of that ſide, and ſpread quite acroſs the Abdomen to the other, being of as different ſizes, and filled with as different liquids, as thoſe in the foregoing hiſtory. She had been tapped ſeveral times, but with very ſmall relief, the water diſcharged by this operation being more, or leſs, according to the ſize of the veſicle which was opened; but it never, I think, exceeded a quart at one time.

Hiſt. 67. One Mrs. Brown, about twenty-nine years of age, having had one child, thought herſelf again pregnant; but finding herſelf deceived, after twelve months, ſhe entered upon a ſtrict courſe of phyſic, as in a Dropſy, but to no purpoſe. Her belly ſwelled moſtly on the right ſide; ſo that the navel was thruſt over to the left. At ſeveral times ſhe had a great quantity of limpid ſerum, like the white of eggs, and as inſipid, taken from her by the paracenteſis. Several buckets full of the ſame li- Right.

quid was found lying in the abdomen, whereof some was contained in bladders as big as the stomach, and others in less. Within the greater vesiculæ were other small ones, and all came from the right ovary. The omentum was entirely consumed; the gall-bladder was full of triangular yellow stones; and the other viscera were all sound *(e)*.

Hair and and matter in it;

Hist. 68. A poor woman, after lying in, had her belly swelled so as to measure five foot round at the navel. It contained thirty-eight measures of water, and the right testicle, or ovary, was as big as a goose egg, being filled with hair, and a white, oily, purulent matter *(f)*.

in both.

Hist. 69. A woman, after a long suppression of her menses, had her belly begin to swell, and did so for nine years before it killed her. The omentum was putrid; the spleen little; the liver pale; and the colon thrust out of its place. In each horn of the Womb was contained about nine pound of water and matter included in a great number of vesiculæ, some of which proceeded

(e) Philos. Transf. abr. vol. 3. p. 207. See Bonnet's Sepul. Anat. p. 491.

(f) Fab. Hildan. Obs. 48. cent. 5.

ceeded from the external coat of the womb itſelf (*g*).

SECT. XVI. *In the* GUTS.

Hiſt. 70. A lady, about ſixty-four years old, had a hard round tumor in the lower region of the belly, with a conſtant diſcharge of urine. This was taken for a ſchirrhus, for which were given emetics, cathartics, diuretics, &c. but without ſucceſs. One day, having been abroad in the air, upon her return home, ſhe voided two baſons full of groſs excrements, a little black, and not very fetid; whereupon the ſwelling diſappeared, the urine ceaſed, and, in a few hourrs, ſhe was perfectly recovered. A year after this ſhe had an apoplexy, which was carried off by emetics and cathartics. Twelve months, after the tumor ſhewed itſelf again, exactly in the ſame manner, which daily increaſed for two years, and then ſhe died. Here the cæcum was ſo dilated, that its membranes were ſmooth on the outſide, and within was three quarts of greyiſh matter without ſmell,

In the cæcum,

(*g*) N. Tulp. Obſ. 45. Lib. 4. See J. Schenk. Obſ. Med. l. 3. p. 414.

ſmell, and not very thick. All the other viſcera very ſound (*b*).

And in the rectum.

Hiſt. 71. A noble lady, having borne two children, had good reaſon to think herſelf with child again; but at the end of ſeven months, her belly being large, and no motion of the child felt, it was then concluded that ſhe had either a mole or a Dropſy. After ſhe had conſulted a great number of phyſicians, and taken all the medicines which they could direct for her, both internally and externally; at length ſhe was ſeized with a violent pain like that of labour, and, in a ſhort time, expired. The belly being vaſtly ſwelled, the matter contained in it was found too thick to be diſcharged by puncture; but, upon making an inciſion, there was found at leaſt five pots (Daniſh meaſure) of a thick, ſizy matter, pale coloured, and a little tinged with red, and a lump, or ſubſtance, like a pine apple, or cluſter of grapes, filled with the ſame ſort of matter, that adhered to the left ſide of the Womb. On the right ſide, alſo, was a membranous body of the ſame kind, as big as a man's head, fixed to the bottom of the Womb and os heon. Theſe bodies

(*b*) Philoſ. Tranſ. abr. vol. 3. p. 112, 113.

bodies and matter contained about twenty-eight pots of the ſame meaſure. Under the uterus lay a membrane, which covered all the reſt of the viſcera, being joined upwards to the baſtard ribs on both ſides, in the middle to the peritonæum, and downwards to the os pubis, between the uterus and rectum. This being removed, all the viſcera were ſound, except the cæcum and rectum; the former being as big as a child's arm of three years old above the wriſt, and the latter had a tumor on it as big as an egg (*i*).

SECT. XVII. *In the* KIDNEYS.

Hiſt. 72. A young woman died of a Dropſy; no fault appeared in any of the viſcera, except in the left Kidney. This was putrid and filled with a moſt fetid liquor as black as ink, which doubtleſs was the origin of this diſorder (*k*). Matter.

Hiſt. 73. One Elizabeth de Bordes had an abſceſs in her left Kidney, for many years, which did, at length, equal in magnitude, and fill up the whole cavity of the

(*i*) Act. Medic. Hafniens, vol. 1. p. 17, &c. See T. Bonnet's Med. Sept. Collat. p. 729, 730.

(*k*) Etmul. Op. Med. p. 405.

abdomen. The ſtomach and inteſtines were forced by it into the cavity of the breaſt, ſo that they could contain little or no food. There were ſeven quarts of pus contained in it, and yet the capſula, or external membrane, was not broken (*l*).

Hiſt. 74. A gentleman, after a violent fit of exerciſe, at ball-play, made bloody urine, to a great quantity. After eight years, he was ſeized with great pain in his Kidneys. Then his belly began to ſwell, and did ſo for thirteen years; during which time he frequently voided five or ſix pints of the ſame kind of matter that was aferwards found in his body. The peritonæum being removed, there appeared nothing but a large tumor, which ſpread itſelf all over the cavity of the abdomen, except where the colon lay upon it, like a girdle. In this tumor was matter of various colours and conſiſtencies; ſome was yellow, full of little glandular bodies, and rough ſtones, whereof ſome were as thick as a man's thumb; ſome was thick and viſcid, like the fæces of oil of olives; others like honey or melted glue; and in the bottom were five or ſix pounds of coagulated

(*l*) C. Piſo de Col. Seros. Part. 2. p. 130, 193. See alſo Phiſoſ. Tranſ. abrid. vol. 3. p. 144.

agulated blood, and ſtones ſticking to the bottom every where. This matter weighed ſixty-eight pounds, and the membrane nine; which was nothing elſe but the Kidney; it being four feet, eight inches round, one way, and three feet, ten inches the other; the right Kidney, and all the other viſcera, being perfectly ſound (*m*).

Hiſt. 75. Vieuſſens gives us the hiſtory of one Pet. Labry, who died in the hoſpital of Montpellier, at twenty-five years of age, of a violent pain in his back. The mouth of the ureter was ſtopped up with a rough ſtone; and the pelvis of the Kidney was ſo diſtended as to contain more than three pints of urine, the Kidney being whole; but the glands and papillæ ſo ſqueezed together, that there was not the leaſt appearance of them (*n*). Urine.

SECT. XVIII. *In the* BLADDER.

Hiſt. 76. One Mr. Smith, of Highgate, died of a Dropſy in 1687. His Bladder of urine was as large as a child's head, and a quarter of an inch thick. The ureters were as large as the ſmall guts in children, and

(*m*) Bonnet. Med. Sept. Coll. p. 739. and Sepulc. Anat. p. 485.

(*n*) Nov. Vaſor. Hum. Corp. Syſtema. p. 189.

full of urine, or a ſerous matter, which, upon preſſure, did eaſily regurgitate into the kidneys, but would not paſs at all into the Bladder. The kidneys were conſumed, ſo as to become like large bags, the pelvis of each being large enough to hold three ounces of water. In the Bladder were twelve cyſtes, bags, or veſiculæ, of different dimenſions, ſome being as large as a gooſe egg, and all filled with a limpid ſerum. The coats of them were ſome thick, others thin and tender; and they were all of them looſe and without adheſion to one another, or to the coats of the Bladder. There was little or no urine in the Bladder; ſo that it was imagined that this miſerable gentleman could only make water when ſome of theſe hydatides were broken, by the Bladder's being too much crowded with them. The liver was large and hard; the lungs of a livid colour, and wholly replete with a purulent matter, a ſtone, as big as that of a cherry, being in one lobe. A fungous ſubſtance covered the heart, which was large, and had a polypus in each ventricle (*o*).

In veſiculæ, or hydatides.

Hiſt.

(*o*) Phil. Tranſ. abrid. vol. 3. p. 148. See T. Bonnet's Sepulcr. Anat. p. 546.

Hiſt. 77. A country woman had her belly ſo ſwelled, that ſhe and all the neighbours thought ſhe was with child of twins. After eleven months ſhe died; when there was found two or three pound of viſcid, fœtid humour in the cavity of the abdomen, and between the two coats of the Bladder a large quantity of pus, the exterior coat being lacerated, and the inner perfectly ſound. The womb, and all the viſcera, were in their natural ſtate. It was thought this diſorder came from a kick with a cow (*o*).

Between the coats.

SECT. XIX. *In the* SCROTUM.

Hiſt. 78. A man was troubled with a Dyſpnæa, ſo that he could not lie down in his bed, but was forced to ſit and ſleep in a chair. After this, his belly began to ſwell, and about a month or two before he died, this tumor went entirely away; but his Scrotum ſwelled to a prodigious ſize (*p*).

Hiſt. 79. A man of forty, being ill of an Aſcites, took ſeveral medicines for it to little or no purpoſe. At length, the humour fell ſo violently upon the Scrotum, that it mortified. By the application of proper

(*o*) T. Bonnet's Med. Sept. Collat. p. 739.
(*p*) C. Piſo de Coll. Seroſ. Obſ. 55.

proper medicines, it digeſted, whereby the dropſical humour was diſcharged; and when it dropped it off, nature covered the teſticles with a callous ſubſtance; ſo that he afterwards got children, and enjoyed a good ſtate of health many years (*q*).

Hydrcele or Hernia aquoſa.

A Dropſy, or watery ſwelling, in this part is, by moſt authors, called Hydrocele, (*r*) or Hernia Aquoſa. Hiſtories of it are common in the writings of ſurgeons.

Hiſt. 80. A man, after an intermitting fever, had an hernia on the right ſide which by degrees extended to the teſticle. This was reduced, and a truſs ordered to be worn; but in a few days he felt darting pains along the ſpermatic veſſels, and a tumor appeared under the groin, which in time came to equal a ſmall melon. This was pierced by a trochar, and a pint and a half of lymph diſcharged, which ſunk the tumor only one half. At laſt there were three diſtinct tumors diſcovered; 1. one in the cyſtis hernialis, the upper orifice of it having been cloſed by the pad of the truſs; 2. between this and the cremaſter muſcle in the cellula of

(*q*) Fabr. Hildan. Cent. 1. Obſ. 48. Cent. 5. Obſ. 76, 77. and Cent. 4. Obſ. 66, 67, 68.

(*r*) From ὕδωρ water, and κήλη a rupture.

of the tunica vaginalis; 3. upon the tunica albuginea, which had been opened by the trochar. The testicle was found, but it was not possible to avoid doing injury to the spermatic vessels, so that he was forced to suffer castration, and so recovered (*s*).

Hist. 81. One Mr. Heap, schoolmaster, of Manchester, for two years before his death was supposed to labour under an ascites, and an hernia intestinalis; for he had a tumor like a satchel hung betwixt his thighs, so that he could hardly walk. In the space of three weeks, one hundred and twenty pints, or fifteen gallons, of fetid water issued through the coats of the scrotum, which at last mortified, and killed him. The substance of the cutis was found to be very schirrous all over the region of the groin, the membrana adiposa was full seven inches thick, and all the viscera in the cavity of the abdomen were perfectly sound. There were twenty or thirty saccules of fat, which adhered to the bowels, of the size and shape of pears. During the whole course of his illness, he eat and drank plentifully, had a good digestion, had little or no thirst, made water freely;

(*s*) Le Dran. Obs. Chirurg. 75.

freely; and in ſhort had no other complaint except the ſwelling *(t)*.

OBSERVATIONS.

1. In the foregoing hiſtories we find Dropſies of the belly, Aſcites, confined to almoſt every part of the abdomen, the reſt of the viſcera being all found perfectly ſound upon diſſection. Thus the ſtomach, omentum, liver, meſentery, womb, kidneys, guts, and bladder, have each of them been the ſole cauſe of theſe kind of Dropſies; ſo little truth is there in the old account of the Aſcites, which lays the cauſe of it always in a fault of the liver or ſpleen.

2. The Aſcites often proceeds from inflammations, and over-heating the blood firſt, and then ſuffering it to cool haſtily. This is, indeed, the general cauſe of moſt diſtempers; perhaps, of two thirds of thoſe to which mankind is ſubject.

3. By Dropſies all the viſcera of the abdomen have ſometimes been entirely conſumed, at others, diſtended to a monſtrous degree. The omentum and liver have become a vaſt heap of glands; and a bag filled

(t) Dr. Leigh's Natural Hiſt. of Cheſhire, &c. b. 2. p. 76.

filled with fetid, nasty matter: the kidneys have been entirely consumed, and their place supplied by the mesentery, which has sometimes been twenty pound weight. All the viscera have been covered with a tartarous, stony substance; and persons have died of an Ascites, without either thirst or difficulty of urine.

SECT. XX. *In the Joints of the* LIMBS.

Hist. 82. A gentleman had a slight wound in his middle finger, which being ill-treated, by a barber-surgeon, it became painful, when there dropt from it a whole measure of clear water. This flux was attended with such great pain, fever, and loss of strength, that he was brought almost to death's door before he could be cured *(u)*.

A surgeon of my acquaintance opened an equal tumor in the middle of a man's thigh, caused by a kick from a horse, from whence there was discharged a large quantity of clear lymph only, without blood or matter.

Hist. 83. In the year 1738, a woman of Bilston, near Wolverhampton (as remarkable for an impostor, in queen Elizabeth's time,

(*u*) Fabr. Hildan. de Hydrath. p. 833.

time, as for its toys in ours) had an equal tumor on the outſide of her right leg from her ankle to her knee. She looked pale, was between thirty and forty, never had a child, complained of great thirſt, ſaid it had been near ſeven years in coming, but was never painful till lately. It was laid open by inciſion, and a great number of hydatides lying along the tibia, between the muſcles were taken out of it. They were of different ſizes, from that of a pea to that of a pigeon's egg; were included in ſeveral membranes, and contained a tranſparent liquor, clear as water. When the outward ſkin was taken off, it looked in many places like the huſk of a grape. The wound being cured, the thirſt left her; and ſhe has now better health than formerly.

Hydatides.

Hiſt. 84. A cooper, about forty years of age, had a ſlight wound near the patella of the right knee; which being too haſtily ſkinned over, he was ſeized with great pain and inflammation in the part, ſo that a mortification was much feared. He had alſo a continual burning fever, and great pain in the head and back, violent thirſt, nauſea, &c. A fungus had ſpewed out of the wound as big as a hen's egg, from which

the

the ſurgeon immediately diſcharged a pint and a half of ichor, or clear water. This continued running ſome few days, and in that time ſeveral pints of the ſame ſort of liquor were diſcharged, whereby the man's cure was at length effected (*v*).

Hiſt. 85. A young woman, in walking one day, ſprained one of her ankles, which was miſtaken for a diſlocation. By endeavouring to reduce it, ſo great a flux of humours was brought upon the part, that ſeveral pints of water were, in a few days, diſcharged by the wounds there made; and the upper parts of her body were ſo emaciated; that there was little more than ſkin left to cover the bones withal (*w*).

Fabritius Hildanus thought it worth his while to beſtow a Treatiſe upon this kind of Dropſy. He gives it the name of Hydrarthos (*x*), or water of the joints. Paracelſus calls the water of theſe parts Synovia (*y*), from

(*v*) Fab. Hildan. de Ichor. p. 833, 834. and Obſ. 97. Cent. 3.

(*w*) Fabr. Hildan. p. 835. More examples of this kind may be ſeen in this Treatiſe of Hildanus.

(*x*) From ὕδωρ water, and ἄρθρον a joint of the limbs.

(*y*) This is a technical word, which perhaps the author made from συν together, and ovum an egg; or, perhaps,

from the likeneſs it has to the white of eggs; and from him the French, and many of our Engliſh ſurgeons, now call it Synovia. Mr. Petit *(z)*, in his chapter of the Anchyloſis, is very particular in deſcribing the nature of this liquor, and plainly, he ſays, demonſtrates, that the Anchyloſis and Dropſy of the joints, muſt often proceed from the acidity, or ſourneſs, of the ſynovia, occaſioned by the pox, king's evil, &c. which have ſometimes diſſolved and reduced it to a perfect water.

haps, like the words gas, opodeldock, &c. is not to be derived from any language that I underſtand.

(z) Treatiſe of the Diſeaſes of the Bones, Part. 1. Ch. 16.

CHAP.

CHAP. III.

Obſervations on the foregoing Hiſtories.

TO deliver matters of fact is the chief buſineſs of a faithful hiſtorian. The plainer the ſtyle, and more ſimple the expreſſion, the more laſting will be the ideas in the mind of the reader. Long periods, and all the other gaudy ornaments of rhetoric, ſhould here be cautiouſly avoided, as being not only ſuperfluous, but often prejudicial. Truth never appears ſo charming and lovely, as when plain and naked. Thus it is with the hiſtory of men's actions, and thus it is with the hiſtory of diſeaſes, to which our bodies are obnoxious. For this reaſon I have, in the foregoing hiſtories cautiouſly avoided every thing that looked like ſuperfluity; but hope I have not thereby rendered the matters of fact obſcure. However, if any difficulty ſhould ariſe, the reader may have recourſe to the original for ſatisfaction, of which I have only given him a ſhort abridgement. For this reaſon I rather

The nature of hiſtory.

ther chose to give the histories of particular Dropsies from the writings of other men, than from my own experience and observation.

The authors I have quoted are, I think, such whose veracity will not so much as once be suspected by any serious person; and, therefore, the foregoing histories being allowed to be true, from thence may be deduced these following propositions, which will demonstrate to us the nature of this terrible disease, and will be a sure foundation, whereon to fix our prognostics, and method of cure.

All the vessels of a human body are capable of a vast distention. The size of men is altogether accidental, nature having appointed no certain standard in this case; but only set some certain limits beyond which it shall not pass. While the force which drives about the fluids continues uniform, and so increases, each part of the body either does, or may receive an equal addition or augmentation, till the whole comes to the bulk which nature designed: but when, by any accident, this force becomes unequal, i. e. quicker in some, and slower in other parts, the size or shape of the

the body muſt ſoon be altered. Fom a circulation thus unequally carried on for a conſiderable time together, a diſtention firſt, and then a rupture of the veſſels, muſt neceſſarily follow. Hence tumors of all kinds, whether phlegmonic, ſcrophulous, or dropſical, may very eaſily be accounted for. The firſt of theſe is from an unequal circulation of the blood in the veins and arteries; the ſecond from that of the glandulous juices; and the laſt from that of the lymph, as will by and by, I hope, more plainly be made appear.

I. Different ſorts of tumors from whence.

A Dropſy, or a collection of water, and watery humours, may be formed in any part of a human body, even in the bones themſelves. Dropſies, however, are moſt frequently to be met with in the larger cavities, viz. in the head, breaſt and belly. The antients, not much uſed to the diſſection of human bodies, were of opinion, that all Dropſies did originally proceed from the ſpleen, or liver; but the bare peruſal of the foregoing hiſtories, will ſufficiently convince any perſon of the falſity of this hypotheſis.

II. Dropſies in every part of the human body.

All Dropſies proceed from a fault in ſome one part at the beginning; but in time,

III. Hard to find where an ascites begins.

many other, both contiguous, and at a distance, may be, and often are, sufferers; so that upon the dissection of a dead body, it is very difficult, and sometimes impossible, to find out exactly from which part the water or dropsical humour had its origin. The great Dr. Friend (*b*) is of opinion, that when the particular part cannot exactly be discovered from whence a Dropsy of the abdomen has its origin, it always comes from the peritonæum, or omentum; if the rest of the viscera are sound, as they very frequently are; because in an Ascites the cawl is generally corroded, wasted, or putrified; and as to the peritonæum, the glands of it are usually affected in this case: but this, though very often, is not always the case.

A violent and constant thirst, shortness of breath, and the making too small a quantity of urine, are generally taken for infallible tokens of, and constant attendants upon, a Dropsy; but it is possible, a person may have this disorder in the most violent manner imaginable, and yet be entirely free from all these complaints. From hence it necessarily follows,

(*b*) Hist. of Physic, vol. 1. p. 161. See also T. Bonnet's Med. Sept. Coll. p. 727.

follows, that there is no ſymptom eſſential to a Dropſy, but a ſwelling of the part affected; all the other ſymptoms here mentioned coming on as the diſeaſe increaſes. C. Piſo therefore very juſtly obſerves, that whoſoever is converſant in the diſſections of hydropic bodies, will find a tumor to be the moſt frequent, if not the only, cauſe of an Aſcites: but theſe kind of ſwellings often come on ſlowly, and the lymphatics are frequently burſt before any diſcovery is made of the diſorder. Mr. Wiſeman (*c*) mentions a perſon who had a prolapſus ani, for which he was conſulted. Upon obſerving the folded ſheet which lay under him to be wet through, as if ſoaked in water, he thought the man to be dropſical, though neither he, nor any of his friends, believed it. Three quarters of a year after he died of an apoplexy, when ſomewhat more than a quart of water was found in the cavity of the abdomen.

IV. Swelling of the part the only ſymptom of a Dropſy.

The foregoing propoſition holds true in the Hydrocephalus, or Dropſy of the head. An apoplexy, palſy, epilepſy, gutta ſerena, convulſions, and a total deprivation or loſs of ſenſe, have ſometimes been cauſed by

V. Even in the head.

(*c*) B. 3. ch. 2.

water contained in the head; and yet at other times, when the whole ſubſtance of the brain by the water has been ſqueezed ſo as to become like a membrane, the ſenſes have continued good and perfect (*d*). No ſyſtem of philoſophy hitherto invented is able, I ſuppoſe, to account for theſe ſeeming contrarieties.

There are more hiſtories of Dropſies, and other diſorders of the head, than of any other part of the body; which ſerve rather to confound, than aſſiſt us in diſcovering the nature of the brain. Wounds in this part are ſometimes mortal, at others not. The ſubſtance of the brain is uniform, but of ſo ſoft and watry a nature, that if twenty-five grains of it be expoſed to the air, twenty-four of them will exhale and only one grain of ſolid ſubſtance remain. From this moiſt part the nerves apparently have their origin; but how, or by what means, ſenſation is performed, we are entirely ignorant. In the year 1736, I ſaw a female embryo taken from the mother, which wanted but a fortnight of its full time. Whilſt it was in the womb it was more briſk and lively than moſt children, but ſo ſoon as it came into the air expired.

Nature of the brain unknown.

(*d*) See chap. 2. ſect. 1.

expired. The whole ſubſtance of the brain and ſkull were wanting, the latter appearing as if had been cut off juſt above the eyes, and ſo round by the ears and atlas, ſo that I could thruſt my finger into the hollow of the vertebræ where the medulla ſpinalis lies. It is certain ſome kind of circulation muſt be carried on in theſe veſſels; but the animal ſpirits could never yet be ſeen, not even by the largeſt microſcopes. In many kinds of brutes the brain is larger, more fine and beautiful, and the nerves more capacious, than in a human body; and yet the latter, with all theſe ſeeming imperfections, performs much more ſurprizing things than the former. If, then, we are ignorant of the nature and uſe of the brain in general, how ridiculous muſt it be for any one to pretend to fix the ſoul, or ſeat of thought and underſtanding, in this or that particular part of it. Though Des Cartes was ſo fond of the glandula pinealis, and aſcribed ſuch prodigious qualities to it, it has nothing in it different from any other part of the brain; nay, unhappily for this gentleman's hypotheſis, it ſeems to be a part leſs neceſſary to life than ſeveral others: for there was a child born at Paris, which lived four days,

and another at Leyden, which lived to be a year old, without a conarium, or glandula pinealis (*e*); but of this, perhaps, more than enough.

VI. No general precepts to be given in physic.

A dyſpnæa, or ſhortneſs of breath, is a conſtant ſymptom of a Dropſy in the breaſt. If this does not appear in the beginning of this diſorder, yet when the weight of water comes to preſs upon the diaphragm, it muſt of neceſſity follow. This kind of Dropſy, as many others, is hard to be diſcovered, till the life of the patient is in the utmoſt danger. For this reaſon, many perſons have laid down what they call certain rules whereby we may be apprized of this diſorder. One gentleman ſays, we may almoſt infallibly know a Dropſy of the breaſt from other diſorders there, by the perſon's breathing better when he lies, than when he is in an erect poſture *(f)*; but the great Riverius (*g*) ſeems to eſtabliſh the direct contrary for a truth, aſſuring us, that when a perſon is ſeized with a ſhortneſs of breath upon his falling aſleep, which wakes him, increaſes

(*e*) Philoſ. Tranſ. abridg. vol. 3. p. 23. See T. Bonnet's Med. Sept. Collat. p. 24, 25.

(*f*) Philoſ. Tranſ. abrid. vol. 3. p. 77.

(*g*) Op. Med. p. 255.

increaſes as the night does, and grows gradually better as the day comes on; this may be taken for almoſt an infallible ſign of a Dropſy in the breaſt. Hence we may learn how cautious we ought to be in laying down general rules or precepts in phyſic. There is no certain concluſion to be drawn from the moſt exact obſervations that can be made in one caſe or two in phyſic; for from the foregoing hiſtories (*b*) it is evident, both theſe obſervations might very juſtly have been made, but that neither of them ſhould have been laid down as a general rule; for though the nobleman was always better upon his lying down in bed, yet the old gentleman in the next caſe was never eaſy in that poſture. I know a certain baronet, who, in his youth, was frequently troubled with a nervous aſthma; for which reaſon he was ſtrictly enjoined, by one that was lately at the head of his profeſſion, religiouſly to abſtain from opium, and all preparations of it, though his circumſtances might ſeem to require it ever ſo much. This general rule had certainly coſt him his life, in a fracture of one of his legs, had I not

(*b*) Hiſt. 18, and 19.

not frequently given it him, though contrary to his expreſs commands.

VII. An Aſcites and gravidation not to be diſtinguiſhed at the beginning.

The Aſcites and Gravidation are not to be diſtinguiſhed from one another in the beginning, by any marks or criteria hitherto laid down by phyſicians. Etmuller *(i)*, being ſenſible of the great advantage a diſcovery of this ſort would be to the fair-ſex, has given us eight obſervations to guide us in theſe caſes. 1ſt, In Gravidation, he ſays the colour is freſh and lively; but dull and heavy in a Dropſy. 2. In Gravidation the ſwelling of the belly is more towards the breaſt, but in a Dropſy towards the os pubis. 3. The water in a Dropſy may be diſcovered by preſſing upon the belly with our hands. 4. The ſprightlineſs of the eyes is entirely loſt in a Dropſy. 5. The urine is high coloured, and but little in quantity. 6. The weight of the water may be perceived. 7. The thirſt is great in a Dropſy, and upon moving the body, eſpecially in bed, the motion of the water may ſometimes be perceived. 8. The menſes flow regularly in a Dropſy, but ceaſe upon a Gravidation. When a Dropſy has continued long, the lymphatics are burſt, and the quantity of water is become

(i) Op. Med. p.

become large. We muſt allow, that many of theſe ſymptoms will appear; but no one, nor all of them together, is, or can be, of any ſervice at the beginning of this diſorder. The laſt obſervation ſeems the moſt likely to help us; but it is not infallible: for ſome women have their menſes all the time of their being with child, and others have laboured under a Dropſy during the time of their pregnancy *(k)*. Till, then, ſome more exact obſervations have been made, I think we may look upon it as one of the deſiderata in the art of healing, to diſtinguiſh a Dropſy from Gravidation at the firſt attack. A touch by the hand of a perſon uſed to the practice of midwifry, according to Hippocrates *(l)*, will ſooneſt, and with the greateſt certainty, diſtinguiſh betwixt theſe two caſes. Immediately after conception, the os uteri internum contracts; as the uterus increaſes, it ſhuts very cloſe, ſo as not to be felt, and ſo continues for ſeven or eight months during the time of pregnancy. For the two or three firſt months after conception, the uterus continues ſmall, is looſe and pendulous; ſo that it

(k) See Schenkius's Obſ. 15. lib. 4. p. 551.
(l) De Natura Muliebri, p. 576.

it requires the utmoſt nicety to determine the caſe at this time; but afterwards it encreaſes in bulk, and becomes more like a fixed, ſmooth, and ſolid body. In the laſt month, the head of the fætus turns downwards in order for delivery, and may very eaſily be felt. Soon after this, the os uteri internum opens again by degrees, till it becomes wide enough for the child and placenta to paſs through; then the waters flow, and the birth is at hand. The breaſts alſo in this caſe, after a few months, become round, hard, and knotted, and afterwards have milk in them; but in a Dropſy, they always continue ſoft, and at length, as the body emaciates, become more and more flabby, till at length they hang like a looſe piece of ſkin, when the body is much emaciated, and the juices of theſe glands quite exhauſted.

VIII. Women more ſubject to ſome ſort of Dropſies than men.

In the parts of generation.

The parts belonging to generation are more frequently the ſeat of original Dropſies in women, than men. In the former, not only the tubæ fallopianæ and cornua uteri, but even the womb itſelf, are often the original ſeat of this diſorder. In the latter the ſcrotum and teſticles very rarely fill with water, unleſs the humour drops from

from ſome of the viſcera upon this, as the moſt depending part. It is not eaſy to conceive where the water muſt be lodged in ſuch women as have had it diſcharged monthly *(m)*, or after a lying-in (*n*). Dr. Strother ſuppoſes, in the latter caſe, that it muſt be contained in and diſcharged by the tubæ fallopianæ, becauſe he could find out no other paſſage. Granting this ſhould be ſo, yet I think it is not poſſible to conceive how water ſhould be diſcharged periodically this way, ſince the mouths of theſe tubes muſt, one would think, be conſtantly opened whenever any water preſſed againſt them; but the preſſure being conſtant by the ſuppoſition, and there being no valves to theſe tubes, the water muſt continually be dropping.

IX. In the peritonæum.

Women are alſo more ſubject to a Dropſy of the peritonæum than men. The four hiſtories above belong to the fair-ſex only, and it is very rare to meet with any ſuch in the other. Whether this be owing to the fibres of their bodies in general being more ſoft and weak than thoſe of the male ſex; to the greater quantity of fluids wherewith they

(*m*) Hiſt. 56. (*n*) Hiſt. 57.

they abound; or to any particular formation of this part, I ſhall leave the learned to determine. This membrane ſometimes thickens, when water lies upon it; but whether it does ſo alſo during the time of gravidation, I am not certain: however, it is manifeſt, that in child-bearing women it muſt be ſubject to very great dilatation and contraction; on which account, perhaps, the humours may be diſpoſed to fall upon it more frequently in ſuch kind of women than any other perſons.

X. Different liquids in the Aſcites.

The liquid contained in the abdomen of a perſon that labours under an Aſcites is not always the ſame. Sometimes it has been clear, ſweet, ſalt, and ſour; at others, like cream, jelly, gall, honey, chocolate, white of eggs, ale, a brown, thick, roapy ſyrup, and water wherein raw fleſh has been waſhed. Fat, chyle, and pus, or matter, have alſo been here found in large quantities; ſo that it is no wonder if gravidation in women, or fat in men, have ſometimes been miſtaken by the beſt phyſicians for a Dropſy, there being no poſſible way of knowing what is contained in the belly of aſcitical perſons, till we behold it with our eyes. Of the former kind I have already given a ſufficient number

Fat miſtaken for a Dropſy.

number of hiſtories; of the latter, this one may be enough. Sir F. L. was ſwelled mightily in his legs, belly, and ſtomach up to his very throat, ſo as to endanger ſuffocation, and at length he died. His phyſicians had all-along treated him as in a Dropſy, with cathartic, diuretic, &c. medicines. The corpſe being exceeding large, pails were provided to receive the water, which was to be let out of his belly; but upon making the puncture, there only iſſued out a guſh of wind. He was a perſon of a great appetite, and fed prodigiouſly, ſo that he died of a corpulentia reimia, there being ſix inches and a half of fat lying upon the peritonæum *(o)*.

XI. Some Dropſies abſolutely incurable.

Many dropſies are abſolutely incurable, from the nature of the part whence they have their origin. When water is lodged in the ventricles of the brain, or when the ſubſtance of the brain is diſtended with it, by what means can it be diſcharged, without the death of the patient? In the Hydrops pectoris, or Dropſy of the breaſt, when the water is contained in a bag, or when the

(o) Philoſ. Tranſ. abrid. vol. 3. p. 21, 22. See alſo T. Bonnet's Med. Sept. Collat. p. 703, and his Sepulcr. Anatom. p. 552.

the pericardium is diſtended with it, how is it poſſible to make an inciſion, without doing injury to ſome of those parts which are more immediately neceſſary to life? Hydatides have ſometimes been taken out of the abdomen in great numbers, and by this means the party has been recovered; but when theſe proceed from the ſtomach, inteſtines, meſentery, heart, or pericardium, what hand ſhall be found nice enough to ſeparate them; or who can go exactly to them, without doing injury to ſome of the more noble parts, and ſo deſtroying life. Avenzoar, Riverius, Hildanus *(p)*, and many others, are of opinion, that the womb may be cut out of the body with ſafety. If ſo, Dropſies which proceed from thence might, perhaps, meet with a ſpeedy cure; but as I never heard of any woman that was relieved by this method, ſo I am apt to think it would be no eaſy matter to perſuade the ladies of our nation, when ill of this diſorder, to undergo the operation.

XII. Galloping Dropſies.

As ſome Dropſies are very ſlow in their attacks, ſo others ſieze us with as great violence. In the foregoing hiſtories we meet with ſome perſons that have laboured under

(*p*) Hildani op. p. 901.

under this diſorder twenty-five or thirty years together, and others that have been deſtroyed by it in leſs than one. As the former may properly enough be called chronical Dropſies; ſo the latter may deſerve the name of acute, or galloping. It is really ſurpriſing to find what vaſt quantities of liquids have in a ſhort time been taken from ſome perſons in this diſorder. Who would think any perſon could have his belly fill at the rate of a pint a day for three quarters of a year together, and yet have little or no thirſt, and make as much water as he drank *(q)* during the whole ſpace of time? or that more than a hogſhead of extravaſated lymph ſhould, in leſs than twelve months be taken out of a man's belly *(r)*, and yet life continue?

XIII. Bleeding at the noſe a mortal ſymptom.

Bleeding at the noſe is generally a ſure ſign of death in an Aſcites. This obſervation I have often found true in my attendance upon thoſe who have died of this diſtemper; nor do I remember to have read of more than one who recovered when this ill ſymptom appeared *(ſ)*. This

H hæmorrhage,

(q) Hiſt. 42.
(r) Hiſt. 43.
(ſ) See Mang. Biblioth. vol. p. 384.

hæmorrhage, I ſuppoſe, muſt come from a putrid fever, cauſed by the contents of the abdomen being ſteeped in the extravaſated lymph, which by the heat of the body at length becomes of a corroſive alkalious nature. Before this happens, we frequently ſee the tongue very red, dry and parched.

XIV. Every part of the human body may be altered in a Dropſy.

In chronical dropſies, not only the liquids, but even the ſolids, of a human body are ſometimes altered. As the lower parts ſwell, the upper generally fall away; ſo that at laſt little more is left than ſkin and bones on the arms, face, neck, and breaſts. The muſcles of the abdomen have been ſo extenuated as to become almoſt inviſible; ſacks, bags, and membranes, have been formed in different parts; the omentum, kidneys, &c. have almoſt entirely been conſumed, and the bones themſelves have ſometimes been ſo far affected as to become vaſtly large, and different from what they are in a natural ſtate; nay, the ſpleen has almoſt been petrified, at leaſt, covered with a tartarous matter, which made it ſomewhat reſemble ſtone. This hiſtory, I think, deſerves our admiration

admiration equally with those of Thuanus *(t)*, where two women, when with child, had the uterus filled with such a substance, and the fætus covered with it. A thing which this author was afraid posterity would hardly believe.

(t) Lib. 76.

CHAP. IV.

Of the Cauſe of a Dropſy.

HAVING already ſhewed what vaſt quantities of different ſorts of liquids have been collected together in ſeveral parts of the human body, our next buſineſs will be to explain by what ways ſuch collections may be made, or, in other words, to ſhew from whence a Dropſy proceeds.

Two ſorts of cauſes.

There are two ſorts of cauſes here to be conſidered: 1ſt, the cauſa proxima, or immediate cauſe of a Dropſy; which muſt be ſome fault either in the ſolids or fluids of a human body, or both together: 2d, the cauſa remota, or what the logicians call the cauſa ſine qua non; which muſt be every thing that occaſions a diſorder in one or both theſe parts.

Lymphatics when firſt diſcovered.

The veins, arteries, and nerves, were parts of a human body well known to the ancients. About the middle of the laſt century, Thomas Bartholine *(u)*, or our country-

(u) T. Barthol. Anat. Corp. human.

countryman, Dr. Jollif (*v*), discovered another sort of vessels very different from any of these above-named. From the transparent liquor which they contained, both these gentlemen gave them the name of lymphaducts, or lymphatics. Neither of these authors was, however, able fully to explain the nature of this their great discovery. This, as often happens to new inventions, was a work left for another; and indeed, A. Nuck almost brought it to perfection. This gentleman, in his Adenographia Curiosa, has demonstrated, that there is a circulation carried on in these lymphatics analogous to that of the blood; and that consequently there must be two sorts of them, like the veins and arteries; the one to carry the lymph from the blood to the several parts of the body, and the other to convey it back again. In another work (*w*) he has also proved, that these lymphatics are not only bestowed upon some particular parts of the body, as their first discoverers imagined, but that they are dispersed all over it; and

(*v*) Wharton's Adenograph. p. 89. See Dr. Plot's Hist. of Oxfordshire, ch. 9. sect. 212.

(*w*) Exper. Chirurg. p. 94.

that they go to the very ends of the toes and fingers.

Lymph, what.

The lymph, or liquid which circulates in them, is compoſed of water, ſalt, ſome ſpirituous and other kind of particles ſo very minute, that their nature has not hitherto been diſcovered. This is the grand fountain from whence all the liquid ſecretions of our body are ſupplied. The urine, ſpittle, ſweat, ſerum of the blood, whether venal, or arterial, have from hence their origin, and therefore any alteration in this, muſt occaſion a change in ſome one, or all the other juices of a human body.

Their coats.

Mr. de Bills *(x)* aſſures us, that theſe veſſels conſiſt of two coats; betwixt which are innumerable very ſmall fine filaments, reſembling the moſs of trees; but Nuck and Ruyſch could never meet with any ſuch thing, and therefore we may conclude that it is only imaginary. However, it is certain, that one kind of them has valves, like the veins, by Nuck called Semilunares; and it is probable the other, like the arteries, may have none. Their coat is not every where of the ſame thickneſs, but becomes ſtronger the nearer they approach to the ductus thora-

Valves.

cicus,

(x) Philoſ. Tranſ. abrid. vol. 3. p. 262.

cicus, ſaccus chyliferus, and ſubclavian vein, for the lymphatics all terminate here, or in the large veins according to Cheſelden. To the naked eye this coat appears pellucid, even and thin, but by the microſcope it ſeems to be compoſed of ſeveral globuli of different ſizes, hanging by, or joined to one another. Mr. Cheſelden ſays, that in a natural ſtate, or if filled with air or water, they appear as cylindrical as the veins; but that in a morbid ſtate, or if filled with a heavy body, as mercury, they then aſſume the form above-mentioned, becauſe the valves do not equally dilate with the other parts of them *(y)*.

Some make the nerves, ſome the glands, ſome the membranes, and ſome the tendinous membranes of the muſcles, to be the origin of the lymphatics; but it is highly probable that they riſe inviſibly from the ſides or extremities of the arteries all over the body, and end in the veins *(z)*; for by blowing air into the ſplenic and emulgent arteries, theſe veſſels have riſen by degrees, ſo as to become viſible on every part of the Origin.

(y) Cheſeld. Anat. p. 199.

(z) See Vieuſſen's Nov. Vaſor. Hum. Corp. Syſtema, p. 107. & illius Neurograph. c. 17.

ſpleen and kidneys. Mr. Cowper alſo aſſures us, that if water be injected by the arteries, while part of the blood remains in its veſſels, we ſhall ſee the lymphatics diſtended with a bloody water: and Mr. Hales *(a)* cauſed an univerſal Dropſy in a dog by injecting warm water into him; the water oozing through the ſmall orifices of the veſſels that are not large enough to receive the red particles of the blood. No wonder, then, if in a violent ebullition of the blood, as it ſometimes happens, part of it ſhould be found in theſe veſſels, as indeed it always is in inflammations.

The lymphatics ſometimes ſwell to a great ſize, and are filled with liquids of various colours and conſiſtencies; but for the moſt part with a clear tranſparent water. The valves not giving way to the ſame force as the other parts of theſe veſſels do, is, as was juſt now obſerved, the reaſon why they ſeem to be compoſed of different knots or bags, and the blood and other juices mixing with the lymph, and by the heat of the body digeſting with it, gives thoſe ſeveral colours and conſiſtencies, which have ſo often

Hydatides.

(a) Hæmaſt. p. 116.

often been found in the abdomen of those that have died, or been tapped for an Ascites (*b*).

Bellini, according to his odd way of philosophy, endeavours to explain in another manner the nature of these hydatides, and to shew what causes may produce them: but the whole is such a strange confused parcel of stuff, that I shall only give my reader the trouble of seeing where he may find it (*c*) if he thinks proper.

In rotten sheep these hydatides, or bladders of water, are often found as big as walnuts upon uterus, omentum, lungs, &c. as is well known to every butcher. In human bodies, such vesiculæ or hydatides have been taken out of the neck, as big as nuts, sixty at a time (*d*); they have been voided by the womb (*e*), by stool (*f*), and by urine (*g*). They have also frequently been found on the kidneys and almost every other of the viscera

Visible to the naked eye.

(*b*) See Vieussens as above, p. 110.

(*c*) De Urinis & Pulsibus, p. 172.

(*d*) Philos. Trans. abrid. vol. 4. p. 24. part 2.

(*e*) N. Tulp. Obs. 32. lib. 3.

(*f*) Philos. Trans. abrid. ibid. p. 98. See River. Obs. cent. 3. and obs. 48. cent. 4.

(*g*) Philos. Trans. abrid. p. 99. Hist. 76. above.

viſcera of the abdomen, as is evident from the foregoing hiſtories.

Uſe. Anatomiſts are of opinion that the uſe of the lymphatics is principally for conveying a diluting liquor to the chyle, from the various cavities, and ſurfaces of the body. * * * * * * * * * * * * * * Hence they ſay thoſe of the lower parts of the body empty themſelves into the receptaculum chyli, as thoſe of the upper parts do into the ductus thoracicus and ſubclavian vein.

Experiments. If the jugulars of a dog be tied, ſo as to prevent the blood's circulation through them, he will ſhed abundance of tears, the ſaliva will run as faſt from him, as if a ſalivation was raiſed by mercury, and a ſerous matter will ooze out betwixt the integuments of the head and the interſtices of the muſcles of the neck (*h*).

If the vena cava be tied cloſe a little above the diaphragm, the abdomen will fill with water as in an Aſcites, the animal will ſoon grow weak and faint, and in a ſhort time

(*h*) Nuck's Sialograph. Lower de Corde, p. 112, 113. Bonnet's Sepulc. Anat. p. 366. Friend's Hiſt. Phyſic, vol. 2. p. 158.

time expire (*i*). If the veins of the kidneys be tied, and a thin liquor injected into the arteries, it will pafs off by the ureters into the bladder like urine.

A fault in the lymphatics the caufa proxima of all Dropfies.

Whoever confiders attentively thefe experiments, and the foregoing hiftories, will not want any other arguments, I prefume, to convince him, that neither the veins, arteries, or nerves, can poffibly be the conduits through which fuch large quantities of water are conveyed to the feveral parts of a human body. The lymphatics then muft be the veffels which alone can difcharge fo much liquid in fo fhort a time. Thefe, as they are placed in every part of the body from head to toe, are fufficient to account for all the furprifing phænomina above related; efpecially if we confider at the fame time what different kinds of liquids, upon a diftention of thefe veffels, may be fqueezed out of the capillary veins, arteries, and feveral forts of glands contiguous to the part affected. It is no wonder then to meet with a galloping Dropfy fometimes, where the afflicted fill with water at the rate of a pint

(*i*) Lower de Corde p. 110, &c. See T. Bonnet, ut fupra, p. 423.

pint a day or more; nor to find the upper parts of dropſical perſons, ſo much ſunk after ſtrong purges, where the lymphatics are broken. A gentleman, who had not laboured under this diſorder more than three weeks or a month, took two doſes of gutta gamba by my advice within three days of one another. Theſe did not at all abate the tumor of the abdomen, but they made ſo great an evacuation both by ſtool and urine, that the muſcles of his arms immediately became flaccid, the ſkin of his upper parts hung looſe like a bag, and in a few weeks more he expired.

There is one kind of veſſels in a human body, not yet mentioned, from whence an objection may poſſibly be raiſed againſt the foregoing doctrine; I mean the conglomorate glands. The Hydrarthros, or Dropſy of the joints, ſeems to have its origin from hence, or from the wounded nerves, tendons, or perioſtium. It is evident, that in all the larger joints of the body eſpecially, there are certain glands there placed, which ſeparate a liquor for lubricating the parts that are contiguous, and for keeping them from wearing by their conſtant motion and attrition.

Objection.

trition (*k*). The excretory ducts of these glands hang loose like rags or pieces of fringe within the articulation, and sometimes discharge large quantities of a mucilaginous liquor, as is evident from the foregoing histories; but whether this liquor is discharged from these excretory ducts only, or some of the lymphatics which may possibly help to compose the body of these glands, is not yet, nor perhaps ever may be, determined; the best glasses hitherto invented, are not sufficient perfectly to inform us of the nature of these kind of bodies; or whether there is such a thing as an anastomosis between the veins and arteries. As then, by parity of reason, we conclude there are lymphatics in several parts of the body, where the eye has not yet been able to discover them: so, till we are better informed of the nature of these glands, I think we may conclude, that the greatest part of those fluids which are deposited sometimes upon the joints, must come from the lymphatics; and that the glands here and in almost every other part of the body, may probably make an addition to the quantity, by the fluid which

answered.

(*k*) See Mr. Petit's Treatise of the Bones, P. 1. ch. 16. Mr. Monro's Anatomy of Human Bones, &c.

which they ſeparate from the whole maſs of blood, as we obſerved before, and had been long ago by Fabritius Hildanus.

Three ways, 1ſt, by dilatation:

Theſe lymphatics then may be the cauſe of a Dropſy three ways; viz. 1ſt, By dilatation. All the fibres of an animal body are elaſtic, and conſequently capable of great dilatation (*l*) without injury. In large tumors of different ſorts, and in women that bear children, every day ſhews us how vaſtly the ſkin and membranes may be diſtended, and in a ſhort time return to themſelves again. The young Spaniard, mentioned by Baglivi and Tulpius, could at his pleaſure draw the ſkin of his neck to his mouth and noſe, and cover his whole face with that which he drew from his ſhoulder: hence the hydrops ſaccatus, and that from hydatides, will eaſily be accounted for. 2dly, By what the Greeks call διαπίδησις, or tranſudation. It is poſſible when the lymphatics come to be pretty far diſtended, that either at their junctures or anaſtomoſes, at their valves if we ſuppoſe them to conſiſt of ſeveral veſiculæ, or elſe at their extremities, a ſort of dew or vapour may ſometimes be diſcharged, which may at length by condenſation

2d, by tranſudation:

(*l*) Obſ. 1. ch. 3.

tion become a body, or maſs of water: This water may at firſt be returned into the maſs of blood again, by ſome veſſels not hitherto diſcovered; for Dr. Muſgrave injected three pound and a quarter of warm water into the breaſt of a grey-hound bitch, which was all carried off thus without any viſible evacuation (*m*); but when by heat of the part it has acquired a lentor, it muſt lodge upon the part and bring on a Dropſy. May we not from hence give an account of thoſe kind of Dropſies which come on ſlowly and are many years in forming? 3dly, By rupture. A ſlip, a fall, or lifting up a great weight, has at once brought on a Dropſy without a previous diſorder. Every thing therefore that can occaſion a breach of the lymphatics, muſt equally occaſion a Dropſy with the things here named. This is doubtleſs the moſt frequent and general cauſe of Dropſies, which conſequently muſt be quicker or ſlower, and more or leſs dangerous, according to the number of veſſels wounded, and the part to which they belong.

3dly, By rupture.

(*m*) Philoſ. Tranſ. abrid. vol. 3. p. 78. This way of filling any part of the body is what Mr. Garengeot calls *infiltration*.

belong. This kind of filling is called effusion.

Obstructions in veins and arteries cause Dropsies.

From what has already been said, it is easy to conceive how obstructions formed in the blood-vessels may bring on a Dropsy. When the veins are obstructed, the blood being constantly thrust forward by the arteries, and not received fast enough by the veins, must quicken the circulation of the lymph, and consequently in time a distention and rupture of its vessels must follow. The same thing will likewise happen, if the arteries are obstructed. Whenever then the venal or arterial blood becomes too thick and sizy, or too thin and aqueous, the lymph will exceed in quantity, and the æquilibrium not being restored, part of it must in time be discharged upon this or that part of the and there form a Dropsy.

Blood too thick in an Ascites.

In an Ascites, the venal blood is always said to be too thin; but I am both from reason and experience convinced of the contrary. Could we take away blood in this distemper, without injury to our reputation, we should almost constantly find it thick and sizy. Willis and Friend were both of this opinion, and the latter of these authors

thors *(n)* ſays, that it proceeds from an obſtruction of the lungs, which are not able to give a due comminution to the blood, they having been frequently found obſtructed in ſuch as have died dropſical. This, I own, is ſometimes the caſe; but from the former part of this diſcourſe it is evident, that this thickneſs of the venal blood may ariſe from ſeveral other cauſes. May we not from the thickneſs of the blood in this diſtemper, aſſign a ſufficient cauſe for the dryneſs of the ſkin in dropſical perſons, or give a reaſon why ſuch perſons ſeldom ſweat of themſelves, or can be made to do ſo by medicines?

By this time I ſuppoſe it is evident, that the matter contained in a dropſical tumor muſt at firſt be clear, or at moſt tinged with a little blood, or the juice of ſome particular gland. Of this colour we frequently find it; but when it has been long out of the veſſels of circulation, when ſome evacutions have been ſtopped, and others too much increaſed, and when many of the parts adjacent are become putrid; it is no wonder that it ſhould ſo often differ in colour, ſmell, taſte, and conſiſtency. In a

Different liquids in an Aſcites whence.

(n) Hiſt. of Phyſic, vol. 2. p. 160.

Dropſy that came from a fall off a horſe, the liquid diſcharged by the trochar was at firſt like coffee, and at laſt like blood. Barbet found it in a poor woman to be 1ſt, Thin and fluid; 2d, Gelatinous; 3d, Tough; 4th, Hard, like the ſubſtance of ſteatoma. When the ureters have long been obſtructed, it is frequently like urine, both in ſmell and taſte. Of the cleareſt ſort of lymph, Mr. Boyle (*o*) muſt only be underſtood when he ſays, that the fluid which diſtends the abdomen in a Dropſy had been frequently found by him, to be of a different nature from either water or urine, for it would keep long without putrifying; and upon evaporation over a gentle fire when freſh, it would firſt grow roapy, then ſizy, and at the laſt gelatinous. Five pints of water were taken from a gentlewoman (*p*) who became dropſical after a miſcarriage. At firſt it was yellow and greeniſh, and then like the water wherein raw fleſh had been waſhed. After it had ſtood together all night, it appeared to be nothing elſe but blood, ſuch as comes from the veins; for there was a large fibrous craſſamentum

(*o*) Boyle's Works, abridged by Shaw, vol. 1. p. 33.

(*p*) M. Liſter de Hydrope, p. 32, &c.

ſamentum at the bottom of the veſſel, and what ſwam at the top was like ſerum, without any ſtinking or corrupted ſmell.

Having thus ſhewn what is the immediate cauſe of a Dropſy, it is no hard matter to conceive how every thing that contributes to the forming obſtructions in the blood-veſſels or glands, to the cauſing too much, or too ſizy lymph, muſt be a cauſa ſine qua non, or ſecondary cauſe, of a Dropſy. The cauſa ſecunda.

Very few perſons, ſince Hippocrates, have done more towards the curing of diſeaſes than our countryman Dr. Sydenham. Mr. Shaw, however, in his ſpurious (*q*) edition of Boerhaave's Chemiſtry, very boldly affirms, that he was entirely ignorant both of chymiſtry and anatomy: that, after the death of many thouſands, chance alone directed him to the uſe of ſpirits of vitriol, in the ſmall-pox, and of ſpirits of hartſhorn for convulſions in young children. This is a heavy charge indeed, if true, and ſhould not have been aſſerted by any man, eſpecially by any one of this nation, without the ſtrongeſt and cleareſt evidence. That the doctor, like other men, was ſubject to mis- Different accounts of Dropſies. Dr. Sydenham's.

 takes,

(*q*) P. 197.

takes, I allow, and he himſelf ingenuouſly confeſſes it; but that he was ſo ignorant of theſe two arts, which are ſo very neceſſary to the compoſing a good and great phyſician, I can by no means at preſent believe: be this as it will, I am certain he did not perfectly underſtand the nature of a Dropſy, and that his chapter upon this diſeaſe has done as much hurt to mankind, as ſome other parts of his writings have done good. Here he poſitively affirms; that all Dropſies ariſe from a thin, weak blood; and that this thinneſs of the blood is occaſioned, 1ſt, By the loſs of too much blood, or by too large evacuations of ſome kind or other: 2dly, By long diſeaſes: 3dly, By drinking too many ſpirituous liquors, or too much water when men have been accuſtomed to ſtronger drink. From what has been already ſaid in this chapter, it is apparent, that a Dropſy will as certainly be cauſed by too thick blood, as that which is too thin; and that it is frequently found ſo in dropſical perſons. By the ſequel alſo it will, I hope, appear, that a ſuppreſſion of the piles, menſes, or any other uſual evacuation, will as ſoon cauſe a Dropſy, as too great a diſcharge of them. From the nature of ſpirituous liquors,

Dr. Sydenham's account erroneous.

quors, which always harden fleſhy fibres, and from experience, we are aſſured, that the two frequent uſe of them muſt deſtroy the tone of the ſtomach and bowels; from whence a viſcid ſizy chyle and blood muſt be expected. Bellini's theory, and every day's experience make it plain, that after all inflammatory fevers, the ſmall-pox, gout, rheumatiſm, &c. the blood and juices become ſo thick and ſizy, that frequently a ſtagnation is cauſed, obſtructions formed, and eruptions break out in ſome part or other of the body; ſo that bleeding after ſuch kinds of diſorders is equally neceſſary as at the beginning. For want of this evacuation after the meaſles and ſmall-pox, how many perſons have fallen into an atrophy, or died of a maraſmus? Whenever the greateſt phyſician writes a theory of any diſeaſe, it ſhould be done with the utmoſt caution, and founded upon a long ſeries of experiments and obſervations. Wherever theſe are wanting, all theory in phyſic is to be ſuſpected. A man may better write philoſophy, as Des Cartes did, by imagination, without any regard to nature, than phyſic without facts; becauſe an error in the former caſe can never be of ſuch ill conſequence

Bleeding neceſſary after inflammatory diſtempers.

as the loſs of a man's life may be, by a miſtake in the latter. Dr. Sydenham's error in the the theory of the Dropſy, I fear, has been the death of many a perſon; but what has been already ſaid, and what will hereafter follow in this diſcourſe, will, I hope, give mankind a better idea of the nature of this great and terrible diſtemper.

Dr. Preſton's account.

Dr. Ch. Preſton gives us a ſhort, but very ſatisfactory account of the nature of a Dropſy, where (*r*) he ſays, the true cauſe of a Dropſy muſt be either from the mechanic ſtructure of the parts, or the indiſpoſition of the blood. The fibres and pores of the veſſels or veſiculæ, which are between the arteries and veins, may be either relaxed, or compreſſed, and the blood may be either too thin, or too viſcid. If too thin, it paſſes eaſily through the pores of the veſiculæ; and if too thick and viſcid, it cannot paſs through the capillary veſſels, but compreſſes the adjacent parts, and ſo forms obſtructions.

Dr. Pitcairn's account.

Dr. Pitcairn ſays, a Dropſy may ariſe from any of theſe four cauſes: 1ſt, The blood may be too viſcid for the ſerous parts to flow through the urinary, or cutaneous paſſages:

(*r*) Philoſ. Tranſ. abrid. vol. 3. p. 142.

paſſages: 2d, The veſſels may be ſtraitened, from ſome cauſe compreſſing or ſtopping them, as ſtone in the kidneys, &c. 3d, The motion of the blood may be too languid from evacuations of it by phlebotomy, &c. 4th, Becauſe ſome uſual evacuations, or paſſages, are either ſuppreſſed, or compreſſed, whence the lymphatics muſt neceſſarily burſt.

In putting a ſtop to any uſual evacuation, great caution ought to be uſed for fear the remedy ſhould prove worſe than the diſeaſe. Our great maſter Hippocrates ſays expreſsly, that when the bleeding piles have been of a long ſtanding, they ſhould not all be ſtopped at a time; but that one ſhould be kept open. Every good ſurgeon knows, that it is not only troubleſome, but very dangerous, to dry up old ulcers ſuddenly. Dr. Willis ſays, he knew an anaſarca come from an itch ill cured; and another, from the untimely drying up an iſſue, which had been made a great many years before: and Dr. Strother is poſitive, that the over-neatneſs of a nurſe in drying up the humour diſcharged from behind the ears of young children, has often hurried them to their graves.

Old drains not ſuddenly to be ſtopped.

Etmuller's account.

Etmuller enumerates these eight causes of a Dropsy: 1st, Intermitting fevers; 2d, Asthma; 3d, The fault of the kidneys; 4th, The fault of some of the more noble viscera, spleen, mesentery, womb, &c. 5th, Jaundice, and other obstructions; 6th, Retention, or too great loss of blood; 7th, Fluxes of all kinds; 8th, Too much drink, as cold water, tippling strong liquors, brandy, &c.

Boerhaave's account.

Boerhaave, in his one thousand two hundred and twenty-ninth aphorism, makes them ten, viz. 1st, An hereditary disposition; 2d, Too much cold water drank of a sudden, which is not discharged by vomit, stool, sweat, or urine; 3d, Acute diseases; 4th, A bloody flux, of long standing; 5th, Long obstructions of the viscera, a schirrus of the liver, spleen, pancreas, mesentery, kidneys, womb, and intestines; 6th, Jaundice, quartan ague of long standing, lientery, diarrhæa, dysentery, empyema, hæmoptœ, and gout; 7th, Too great evacuations, especially of arterial blood; 8th, Drinking sharp, fermented liquors; 9th, Tough and hard food; 10th, Hydatides, and such like, as melancholy, scurvy, &c.

Dr.

Dr. Willis's account.

Dr. Willis ſays, a Dropſy may be cauſed, 1ſt, By the blood's being too thick and viſcid, or too thin; 2d, By the lacteals being obſtructed or burſt; 3d, By a fault of the lymphatics.

Van Helmont's account.

Van Helmont will have a fault of the urinary paſſages to be the only cauſe of this diſorder; for he ſays, no man, whoſe urine paſſes freely, will ever become dropſical. The want of this neceſſary evacuation, I own, does ſometimes cauſe, and always very greatly increaſes, a Dropſy; but there are many inſtances to be met with, of people that have laboured under this diſtemper, and have no deficiency of this kind; as may be ſeen above.

The antients account.

Many of the antients thought, that all Dropſies proceeded either from a fault in the ſpleen or liver; but this miſtake I have taken notice of already. Al. Trallian ſays, a Dropſy may be cauſed in the ſpleen, colon, meſentery, womb, loins, and bladder, by too great a flux, or retention of the menſes, and by a coldneſs on the lungs, as alſo in the diaphragm, and in many other parts of the body. Aretæus ſays, that large draughts of cold water, windy food, indigeſtion, and bupreſtis, occaſion this diſorder: and to theſe

P. Ægi-

P. Ægineta adds, a hardneſs, or ſcirrhus, about the ſpleen and liver, long fluxes of the bowels, long fevers, a ſuppreſſion of the hæmorhoids and catamenia, an aſthma, want of ſleep, and the like. C. Aurelianus thus enumerates the ſecondary cauſes of a Dropſy, viz. a cachexy, long fevers, ſcirrhus of the liver, ſpleen, ſtomach, womb, and peritonæum; a dyſpnæa, windineſs of the ſtomach and colon, a continued looſeneſs, a dyſentery of long ſtanding, a retention of the menſes, a ſudden and unſeaſonable ſtopping of the piles, long faſting, too much drinking of water, eſpecially that which is ſalt, the taking too many medicines, and the like.

When Dropſies are the conſequence of acute diſtempers, they are always more or leſs dangerous, according to the degree of weakneſs cauſed by the original diſorder. Hippocrates (*s*) thought the ſeat of all theſe kinds of Dropſies was either in the lower belly, or liver; but though his prognoſtic is allowed to be good, yet his theory muſt certainly be erroneous, ſince acute diſorders will fix upon any part of the body. In

(*s*) Coac. lib. 2. ſect. 2. aphor. 26.

In the former *(t)* of these cases, according to him, the feet swell, and diarrhæas follow, which continue for a long time, but neither lessen the swelling of the belly, nor the pain; but in the latter, the feet swell, the excrements are hard, there is an inclination to cough, and the belly swells sometimes on one side, sometimes on the other, and sometimes falls again.

After long sweatings the legs begin to swell, and a Dropsy ensues *(u)*. This is frequently so in a consumption; so that whenever the legs swell in this case, the patient is generally thought to be past recovery. The same likewise happens when the pores of the skin have been long obstructed. A young gentleman near Leyden *(v)*, by being often out at nights, in star gazing, at length had the pores of the skin so totally obstructed, that when he had worn a shirt five or six weeks, it would be as white as if he had worn it but one day. This brought him into a Dropsy, which was after some time perfectly cured. Dysenteries, diarrhæas, and tertian agues of long continuance,

(t) Ibid. Aphor. 27, 28.
(u) Hippocr. de Flat. p. 299.
(v) Philos. Transf. abrid. vol 3. p. 18.

continuance, and the voiding much blood upwards and downwards, diſpoſe men to Dropſies, according to Hippocrates. Splenetic perſons, that are afflicted with a dyſentery, die of a Dropſy or lientery (*w*). In bilious conſtitutions, when the ſtools are uncertain, ſmall, white, mucoſe, cauſing pain below the navel, and when the urine is not made freely, a Dropſy muſt be the conſeſequence. Hoffman ſhews how a retention of gouty matter cauſes an aſthma, or ſhortneſs of breath, then coſtiveneſs, and ſo a Dropſy; and the ſame may doubtleſs be ſaid of that matter which cauſes the ſcurvy, or any other chronical diſorder, which often end in this diſtemper (*x*).

I have often known Dropſies come from falls, or over-ſtraining the body in lifting up heavy burthens. This is a common caſe among the poorer ſort, and has been before obſerved by Bartholine.

How to prevent a Dropſy.

Before I take my leave of this head, it may be proper to ſay a little concerning the way to prevent a Dropſy coming upon us. How ſmall a quantity of meat and drink will ſatisfy nature, may be learnt by the lives

(*w*) Hippocr. aph. 43. ſect. 6.

(*x*) Hoffm. Conſult. vol. 2. p. 307.

lives of Cornaro, a nobleman of Venice, and that of Dr. John Barwick, a divine of our own country. The former (*y*), by regularity in diet, preſerved an exceeding weak conſtitution to a good old age, one egg at laſt being ſufficient for two meals: and the latter (*z*), being an implacable enemy to Oliver Cromwell and his adminiſtration, was by them thrown into priſon; where, being forced to live upon bread and ſpring water, he miraculouſly recovered of a conſumption, when his caſe before had been given up for loſt by his phyſicians. From theſe, and many ſuch like inſtances that often happen, I think we may very ſafely conclude, that there are but few perſons in this nation who do not eat and drink every day, whilſt in health, much more than is required to keep the machine in motion, or to ſupport nature; by this means the blood-veſſels, lymphatics, and other conduits of our bodies muſt conſtantly be upon the ſtretch, and upon every little accident muſt be in danger of being broken. This muſt always have been the caſe, had not

Cornaro.

Dr. Barwick.

(*y*) See Cornaro on health.

(*z*) Vita Joh. Barwick, p. 82, &c.

not Providence furnished us with so many ways to discharge the superfluous parts of the ingesta. The liver and all the glands of the body, the intestines, kidneys, and pores of the skin, are all ready to assist in carrying off this superfluity. The first of these is so very useful upon this account, that, next to the heart, brain and lungs, I think it ought to be esteemed the most necessary organ of life, and consequently that obstructions here formed are exceeding dangerous. Dr. Cheyne (*a*) is well satisfied that this is the principal use of the liver; that all dire and horrible hysterics, epilepsies, apoplexies, manias, cholics, scurvies, jaundice, and hot ulcers, &c. have from hence their origin; and that no full feeder was ever opened, in whose liver there was not found some gross fault or imperfection. To prevent obstructions then in this and every other part of the body, nothing can be more necessary than temperance, and a strict regularity in the non-naturals. The constant tippling of spirituous liquors late at night, and whetting in a morning, are pernicious customs, which every man that is desirous of life, ought by all means possible carefully to avoid.

Use of the liver.

Of temperance and regularity.

(*a*) English Malady, p. 185.

avoid. Rich food and high ſauces are no leſs detrimental to our conſtitutions; and ſo is every other thing that increaſes the circulation of our blood; for it has been demonſtrated (*b*) that the length of our lives is reciprocally proportioned to the quickneſs of our pulſes. The changing day into night, and night into day, a thing too common among the great ones, is a cuſtom vaſtly deſtructive of health. Almoſt all creatures, except ſome carnivorous and domeſtic animals, go to bed and riſe with the ſun, whoſe light and heat gives life and vigour to each part of the creation. Not only the time of lying in bed, but the poſition of our bodies there, ſhould exactly be obſerved by thoſe who are deſirous to prolong their lives to the utmoſt. Too long a confinement to bed weakens, and ſitting up late at nights deſtroys the appetite, makes the legs ſwell, and does injury to the conſtitution. Dr. Lower (*c*) aſſures us, that perſons of a cold conſtitution ſhould neither lye with their feet nor heads too low in bed; for in the former caſe, they can neither be warm, nor fall aſleep; and in the latter, the face

(*b*) Barry on Conſumptions, p. 91.

(*c*) De Corde, p. 133.

face is apt to ſwell next morning, the eyes are blood-ſhot, the head aches, and there is a noiſe in the ears, &c. Mr. Hales (*d*) alſo propoſes lying in a reclining poſture, as ſoldiers do in barracks, to prevent the ſtone and gravel. To theſe inconveniencies let me add, that upon lying too low with our heads, there is not a due evacuation of urine; for by this means the weight of water is taken off the ſphincter of the bladder, and the urine is not ſeparated from the blood in due quantities; whence Dropſies, aſthmas, and other diſtempers will ariſe. Every man, doubtleſs, muſt have obſerved, that when the urine has been thus retained in the night, upon exerciſe next morning, large quantities have been diſcharged, though little or nothing has been drank. With good reaſon then Dr Sydenham adviſes, that in the ſmall-pox, where there is a ſuppreſſion of urine, the patient ſhould immediately be taken out of the bed and placed in an erect poſture, for by this means theſe complaints will ſooner be removed than by the moſt coſtly medicines. From the ſame way of reaſoning, Dr. Lower adviſes thoſe that drink hard not to go to bed till they have diſcharged by urine the greateſt

(*d*) Vol. 1. p. 229.

eſt part of what they have drank; and ſays, he knew a hard drinker, who by this means lived to a good old age, without being afflicted with any conſiderable diſtemper. It is equally pernicious to eat late ſuppers, and go to bed with the ſtomach loaded with ſtrong food, and ſuch as abounds with muriatic ſalts. If perſons, notwithſtanding what has been here ſaid, will ſtill indulge themſelves in eating and drinking to exceſs; the next day exerciſe is abſolutely neceſſary to carry off the load, to bring the body to the uſual ſtandard of health, and prevent Dropſies and other diſtempers, whereof death muſt inevitably be the conſequence. But of this enough.

CHAP. V.

Of the Signs of a Dropſy.

A ſwelling, the only true ſign of a Dropſy.

I Have already demonſtrated that there can be no eſſential ſign or ſymptom of a Dropſy, but the ſwelling of the part affected. Our bodies are ſubject to ſo many kinds of tumors, that at their firſt coming it is ſometimes exceeding difficult to diſcover which is dropſical. In the fair-ſex gravidation often has, and muſt again be miſtaken for a Dropſy by the beſt phyſicians. Fat has ſometimes deceived the judicious, and when a Dropſy has been attended with much pain, it has often been taken for very different diſorders: in the belly for cholic, in the breaſt for an aſthma, in the head for cephalalgia, &c. The lymphatic veſſels, like many other parts of the body, are not equally ſuſceptible of pain; ſo that we often are miſtaken in this diſorder, and frequently apprehend no danger, till the breach is too wide to be repaired. This then

then being the true ſtate of the caſe, it is evident, that all the ſigns given us, by the very beſt authors, will afford us little or no help at the beginning of a Dropſy; but they may, however, ſometimes be ſerviceable before the conſtitution is quite deſtroyed. This I deſire may be remembered throughout this whole chapter.

The general ſigns of a Dropſy, ſays Aretæus, are a pale complexion, dyſpnæa, and a cough ſometimes. Dropſical perſons are heavy and unwilling to move; have no ſtomach, and if they eat, though it be little, and not windy, yet they are filled and puffed up, as if they had eaten a great deal: they never ſweat, not even in bathing: their veins on the backs of their hands, and upon their bellies, are ſwelled, and of a blackiſh colour: their ſleeps are troubleſome, long in coming, and ſhort: they are fainty, and talk little, but patient, and deſirous of life. The general ſigns of a Dropſy, from Aretæus.

According to C. Aurelianus, the general ſigns of a Dropſy are, a ſwelling, difficulty of motion, breathing, and ſleeping, eſpecially after eating; thirſt, little urine, loathing of food; veſiculæ, or little bladders of water; puſtules; and wounds hard to be cured. C. Aurelianus.

Thoſe that fall into a Dropſy from grief have hard ſtools, with a mucoſe matter, and bad urine. They are ſwelled in the hypochondria; have pain in the belly and muſcles of the back; fevers, thirſt, dry coughs, ſhortneſs of breath, eſpecially upon motion. Heavineſs of the legs, loſs of appetite, and fulneſs after eating, though but little, are conſtant attendants upon this diſorder, according to Hippocrates (*e*).

Hippocrates.

Sydenham.

Dr. Sydenham cuts the matter ſhort when he aſſures us, there are only three ſigns eſſential to a Dropſy; viz. ſhortneſs of breath, ſuppreſſion of urine, and intenſe thirſt. For the truth, of this, let the foregoing hiſtories and obſervations be conſulted. Dr. Leigh (*f*) poſitively affirms, that in his courſe of practice, he had met with ſeveral dropſical perſons, who through the whole courſe of the diſeaſe had retained a very good digeſtion, and whoſe urine both in quantity and quality had been agreeable enough. Thirſt, however, being one of the moſt conſtant and troubleſome companions that attend upon

Of thirſt.

(*e*) Coac. Prænot. ſect. 2.

(*f*) Dr. Leigh's Nat. Hiſt. of Cheſhire, &c. b. 2. p. 69.

upon a Dropſy, I ſhall endeavour to ſhew from whence it is poſſible to ariſe.

1. Mr. Cheſelden, in his anatomy, aſſures us, that about ſix ounces of ſaliva may poſſibly be ſeparated by the glands about the mouth after every meal: if ſo, when either the juices become viſcid, or the lymph, by a diſtention or rupture of its veſſels, is diſcharged in too great a quantity upon any other part of the body, leſs of it muſt be diſcharged by the ſalival glands than was in a healthy ſtate; and conſequently, the mouth and parts adjacent muſt become hot, dry and parched, and great thirſt muſt follow, from a bare deficiency of this neceſſary fluid. Thus it always is in fevers, and thus it ſometimes is in Dropſies (*g*). 1. From want of ſaliva.

2. Etmuller ſays, that the thirſt, in dropſical, cachectic and ſcorbutic bodies, ariſes from too great a quantity of ſalt in the ſaliva of ſuch perſons. Was this the caſe, the more ſaliva paſſed through the mouth, the more intenſe the thirſt muſt be; but this we find by experience to be directly contrary to truth; for upon ſqueezing the ſalival glands by chambling a ſtone, or any hard thing, 2. From too much ſalt.

(*g*) See Morgan's Mechan. Practice of Phyſic, p. 108.

without any other moiſture than from theſe glands, thirſt in theſe caſes will frequently be leſſened, if not entirely taken away.

3. From corroſive or alkalious ſalts.

3. The great Boerhaave (*h*), and others (*i*), have demonſtratively proved, that there are no fixed acid or alkalious ſalts contained either in the blood or juices of a human body, whilſt in a healthful ſtate; but that, by ſtagnation and heat, the ſalts may become volatile, and of fiery alkalious nature. In the beginning of a Dropſy there is generally little or no thirſt, or ſuch at leaſt as can very eaſily be borne by the afflicted. Upon the burſting of the lymphatics, the extravaſated fluid becomes corroſive, and deſtroys the parts adjacent; from whence proceed pain, fever, heat, thirſt, reſtleſsneſs, and many other terrible ſymptoms. But to return,

Prognoſtic ſigns.

The Dropſy is a ſore diſeaſe, of which few recover (*k*); and that which comes after acute diſorders is very rarely cured (*l*). An hereditary Dropſy is often too hard for the moſt powerful medicines. Thoſe only can be recoved from this diſeaſe, whoſe viſcera are ſound and ſtrong; who can eaſily digeſt their

(*h*) Chemia, vol. 2. proceſs 92.

(*i*) Phil. Tranſ. abr. vol. 3. p. 331. (*k*) Aretæus.

(*l*) Hippoc. Prænot. 81. C. Celſ. p. 72.

their food, breathe freely, are without pain, are of an equal heat all over their bodies, and are not fallen away in the extreme parts; for these parts had better swell than emaciate: the belly and extremities should be soft; there should be neither cough nor thirst, and the tongue should not be dry at any time, especially after sleep: this seldom happens. They should eat with pleasure, and after a fuller meal than ordinary should not be uneasy. The belly should easily be moved by medicines, and the natural stools should be soft and figured. The urine should be in proportion to the meat and drink. They should bear fatigue; and in short, the whole man should be in all respects as if there was no danger, or but little; for where no good symptoms appear, there can be no hopes of recovery; and where they are but few, the hopes can be but small *(m)*.

The belly, drink, and urine, to be measured every day.

When we undertake the cure of an Ascites, it is proper to measure the belly every day, and also the drink and urine. If the belly increases, and the quantity of urine grows less, there can be but little hopes of

 recovery;

(m) Hippoc. Prædict. lib. 2. p. 89. C. Celsus, lib. 2. c. 8.

recovery; but if that falls, and this increases, provided the strength and appetite keep up, we may be in hopes of success (*n*).

Dropsies hard to be cured.

The Dropsy is a chronical distemper, not only unpleasant to behold, but very difficult to cure. Few recover of it but by good fortune, which is more owing to Providence than art (*o*).

All Dropsies are hard to be cured; but those which come from stones are more so, than those from hardness. Those from a dysentery, or cholic, are worse than those from too much drink; and those of the liver are more dangerous than those of the spleen. Women are cured with more difficulty than men; and children with more ease, than either young men or old *(p)*.

Sir Theod. Mayerne *(q)* observes, that those who are subject to disorders of the parts necessary to respiration, as the lungs, &c. for the most part fall into Dropsies of the breast, and at length, after great uneasiness, are suffocated.

In

(*n*) C. Celsus, p. 163. (*o*) Aretæus.
(*p*) C. Aurelianus. (*q*) Prax. Med. p. 127.

In a Dropſy, attended with a fever, if the urine be thick, and ſmall in quantity, it is mortal, according to Hippocrates *(r)*: and hence, I ſuppoſe, Dr. Willis *(s)* aſſures us, that if the urine in an Aſcites be red, lixivious, and little in quantity, there is great danger; and then gives a ſolution of the phænomenon according to his particular way of philoſophiſing; which not being ſatisfactory to me, I forbear to tranſcribe. Bad urine a bad ſymptom.

Ætius, Oribaſius, and others, have obſerved, that a cough, coming after an anaſarca is begun, generally proves a mortal ſymptom. The reaſon, I think, is obvious, ſince in this caſe the hydropic humour muſt be fixed upon the lungs, or lodge upon the diaphragm. A cough.

A looſeneſs at the beginning of a Dropſy, if without loſs of appetite, cures it; but the falling ſickneſs here leaves no hopes *(t)*. If when the liver is filled with water, it burſts through the omentum into the abdomen, the belly fills, and the ſick die *(u)*. A looſeneſs good at the beginning.

Spots and ſores upon the legs of dropſical perſons, Spots and ſores a bad ſymptom.

(r) Hippoc. Coac. Prænot. ſect. 2. p. 190.
(s) Th. Willis, op. Med. p. 270.
(t) Hip. Coac. Prænot. p. 191. aphor. 29. 7.
(u) Hippocr. aphor. 55. 7.

persons, whether red or purple, I have often observed to be a mortal symptom: so did Hippocrates, long since, in the cases of Bion and Ctesiphon (*v*).

Poor persons sooner cured than rich ones.

Poor people are more easily cured of Dropsies than the rich; and yet these are not to be cured without temperance. A disciple of Chrysippus told king Antigonus, that a friend of his, who was noted for intemperance, could not be cured of this distemper; and so it happened: for though both the king and the physician attended him, yet he destroyed himself by eating and drinking (*w*).

Change of countenance mortal.

In a Dropsy, if the colour of the face changes of a sudden from red and florid, to a dark lead colour, the patient will die in a few days, or a month at fartheſt (*x*).

Bleeding at the nose mortal.

Bleeding at the nose, or elsewhere, I have often observed to be a mortal symptom in this disorder: so it was in the captain above, and in a man who bled spontaneously at the arm (*y*). After a Dropsy has been carried off (by medicines I suppose) our countryman,

(*v*) De Morb. Popularib. lib. 7.
(*w*) C. Celsus.
(*x*) Baglivi Prax. Med. p. 127.
(*y*) Heckstetter Obs. Med. cap. 7. decad. 2.

countryman, John de Gadesden *(y)* says, if blood appears in the stools, it is a mortal symptom.

Dropsical persons are often subject to the falling sickness, loosenesses, and other ill symptoms *(z)*. Falling sickness.

In the jaundice, when there are frequent stools, but small, slimy, and mucose, with pain about the liver, and urine thick and made with difficulty, a Dropsy is generally the consequence *(a)*. Jaundice.

If a Dropsy has been cured by medicines, and returns again, the case is desperate (*b*). Relapse.

In a word, the danger of all Dropsies must be greater or less according to the nature of the part where it is seated, the time it has continued, the damage done to the lymphatics and the other viscera. Those that arise from a distention of the lymphatics are most easily cured. If the lymph only oozes out, the danger cannot be so great, as where the vessels are burst; and supposing a rupture of them, the danger must still be proportioned to the number of those that suffer,

Boerhaave,

(*y*) Ros. Anglic. p. 57. 3. (*z*) Hippocr. aphor. 30.
(*a*) Ibid. aphor. 31. (*b*) Ibid. aphor. 36.

Diagnostic signs.

Boerhaave, in his aphorisms, tells us, that a Dropsy of the head *(c)* is of different kinds; for the water may be contained, 1st, Between the external teguments: 2d, Between them and the cranium: 3d, Between this and the membranes of the brain: 4th, Between these membranes and their duplicatures: 5th, Between these and the cerebrum: 6th, Between the foldings of the brain: 7th, In the cavities of it: and to these I may add, 8th, Between the tables of the skull: and 9th, In the very substance of the brain itself, as may be seen in the foregoing histories of the second chapter.

In the head.

When the tumor is on the outside of the cranium, it is easily distinguished by its colour, softness, &c. but when the water is lodged in any part within, it is not easily to be discovered, till after the death of the afflicted. A palsy, epilepsy, gutta serena, &c. are sometimes caused by water in the head; and many persons, I am satisfied, have died of this disorder, when it has not once been suspected by either the patient or physician (*d*). Hippocrates, however, gives the

(c) The Greeks call this disorder, ὑδροκέφαλος, and ὑδροκέφαλον, from ὕδωρ water, and κεφαλη, the head.

(d) Vide Obs. 1. lib. 1. Nicol. Chesneau.

the diagnoſtic ſymptoms thus: an acute pain in the head and temples; a ſhivering and fever now and then; pain about the eyes; and dimneſs of ſight. Theſe perſons frequently ſee things double; a vertigo and blindneſs often ſeizes them upon riſing, and they can neither bear wind nor ſun. There is a noiſe in the ears: they are apt to ſtart upon every ſudden ſound; and they vomit up thin phlegm, and ſometimes their food: the ſkin of the head is contracted, and wants to be rubbed *(e)*.

Many authors have ſaid a great deal upon this diſtemper, but with how much ſatisfaction to the curious, I ſhall leave to others to determine, and only refer my reader to the places quoted at the bottom of the page, where he may find it treated of more at large (*f*).

In the breaſt.

When there is a collection of water in the lungs, or breaſt, a fever and cough troubles the party: the breath is ſhort, the feet ſwell, the nails grow crooked, and the ſymptoms are the ſame as in an empyema, but

(*e*) Hippocr. de Morb. lib. 2. p. 466.

(*f*) See Wepfer de Morb. Capitis, Obſ. 21, &c. P. Æginet. lib. 6. c. 3. Etmull. Op. Med. p. 417. L. Mercat. Concillior. p. 271. Morgan's Philoſ. Principles of Med. p. 199. Turner's Art of Surgery, &c. J. Schenk. Obſ. Med.

but not ſo acute. If we uſe an infuſion, fomentation, or fumigation, and no matter follows, water is within. If you lay your ear to the ſide a good while together, the water bubbles like vinegar (*g*). This continues a-while, and then it falls into the belly, when the patient ſeems to be freed from this diſorder; but ſoon after the belly is inflamed, and he ſuffers as much, or more, than he did before. Some ſwell in the belly, ſcrotum, and face, which many think proceeds from the lower belly only. *(h)*. To theſe Riverius *(i)* adds a ſhortneſs of breath when in bed, a pain in one of the arms, or ſhoulders, and a palſy.

The motion of the water may be heard upon turning the body from one ſide to the other in bed. There is a dry cough, and ſhortneſs of breath, eſpecially upon going up hill. Thirſt, reſtleſſneſs, palpitation of the heart, an intermitting pulſe, and frequent faintings, are the moſt common ſymptoms of this diſeaſe (*k*).

Piſo

(*g*) See Willis, p. 235.

(*h*) Hip. de Morb. lib. 2. p. 483. de Affect. in ter. p. 544.

(*i*) Op. Med. p. 255. See chap. 3. prop. 6. above.

(*k*) Willis Etmull. Berbet. Chirurg. p. 54.

Piſo (*l*) makes only three ſymptoms of this diſorder: 1ſt, The ſound of the water upon turning the body from one ſide to the other: 2d, A diſturbed ſleep at going to bed: 3d, A palſy of the ſide affected. Dr. Lower (*m*) ſays, that a young gentleman, who died of this diſorder, could only ſleep when he lay upon his belly in the laſt ſtages of it.

In the pericardium.

When the pericardium has too much water in it, the ſides of the heart cannot be dilated enough to receive the blood that is conſtantly brought to it; ſo that the pulſe muſt be leſſened by degrees, till a ſyncope, and at length death itſelf, follows. It is probable that this diſeaſe ſucceds a palpitation rather than the contrary, becauſe a palpitation often happens to perſons in health *(n)*.

In the abdomen.

In an Aſcites the belly and feet ſwell, the face, arms, and other parts emaciate. The teſticles and penis are enlarged, and the latter becomes crooked. If you preſs the belly with your hand it yields to it, for the humour goes to ſome other part. When the

(*l*) De Coll. Servſ. Obſ. 57. (*m*) De Corde, p. 146. (*n*) Ibid. p. 93, 94.

the party turns himſelf in bed, from one ſide to the other, the humour goes to the ſide he lies on, and occaſions a ſwelling and a noiſe that may be heard. If you make an impreſſion with your fingers, the place becomes hollow, and remains ſo a long time *(o)*.

Dr. Sydenham ſays, that a ſwelling about the ankles, which goes down in a morning, but pits like dough at night, is the firſt ſign of this diſtemper. This is far from being true; for there are Dropſies formed in ſeveral parts of the abdomen, which have proved mortal, and yet the legs have never once ſwelled. Beſides, women with child, thoſe that want their catamenia, old men after a fit of the aſthma, and young ones after fevers and other long fits of illneſs, have their legs ſwell without any damage to their conſtitution, or any other ſymptom of a Dropſy; and all theſe recover without medicines.

Of ſwelled legs.

Sir Richard Blackmore is of opinion, that the water which diſtends the legs of dropſical perſons is extravaſated, for theſe two reaſons: 1ſt, becauſe this was the opinion of the ancients, who therefore gave it the name

(o) Aretæus.

name of Aqua interius: 2d, Becauſe, that by bliſtering the legs or pricking them with a needle, no blood, but water follows. However, till better arguments are produced, I muſt beg leave to diſſent from him; for, 1ſt, The antients knew nothing of the lymphatics, and, therefore, though they might give it this name, yet I think this argument can be of little or no force: 2d, His other reaſon proves too much, and conſequently nothing. In a ſound body the lymph, and not blood, is diſcharged by bliſters. It is hardly poſſible to wound the ſkin in any part of the body by a needle, but ſome blood muſt follow, and though in a dropſical ſtate, upon a ſmall wound made, more water may be let out, which may dilute and take away the colour of the blood, yet I think it is next to impoſſible but ſome blood ſhould be let out by this kind of puncture. Beſides, if we ſuppoſe the ſwelling to abate upon lying all night in bed, it is evident it cannot be out of the lymphatics; for a fluid that is once out of the veſſels wherein it uſed to circulate, can never get into them again, but muſt continually increaſe, unleſs it finds a paſſage by ſome neighbouring emunctory, is let out by ma-

nual operation, or by diſtention and corroſion of the veſſels makes a paſſage for itſelf.

In the liver.

In Dropſies of the liver, there is either a violent cough, or an inclination to it, which is not ſo frequent in other kinds of Dropſies (*p*).

Peritonæum.

A Dropſy of the peritonæum may be known by the tumor's being leaſt prominent about the navel; becauſe the tendons and peritonæum are not eaſily here ſeparated (*q*).

Womb.

Hippocrates (*r*) tells us, that Dropſies of the womb may be diſcovered by the touch, the os uteri being ſmall and ſoft by reaſon of the water. To this we muſt add, the continuance of the ſwelling more than nine months, and the external form of the tumor.

Tympany.

Women are more ſubject to a tympany than men. Doctors Drake and Leigh (*s*) ſay the reaſon is, becauſe a Dropſy of the womb or ovaria is always miſtaken for this diſtemper.

(*p*) Hippocr. de Prænot. ſect. 8.

(*q*) Cheſelden's Anatomy, p. 139.

(*r*) De Natura Muliebrum, p. 576.

(*s*) Anthropolog. nova, p. 164. Natural Hiſtory of Cheſhire, b. 2. p. 70. 73.

diſtemper. Mr. Littre and Albrectus *(t)* are as poſitive that it is always owing to a diſtention of the colon, cæcum, or ſome other part of the inteſtinal tube, with wind and vapours. From the latter of theſe authors, Mangetus gives us ſeveral hiſtories of this kind; and one of a man, who having had ſeveral glyſters given him for the cholic, at laſt, after many days, voided a maſs conſiſting of ſeveral veſiculæ, ſome of which were large as walnuts, filled with wind. They all adhered cloſely together, and when broken ſent forth a moſt intolerable ſtink.

Of the hernia aquoſa. Four kinds. 1.

The ſcrotum or bag of a man conſiſts of ſeveral parts, each of which are ſubject to the Dropſy. 1. The ſcrotum, or bag, is ſometimes ſo diſtended with a watery humour, as to retain the impreſſion of our fingers and become tranſparent. This *(u)* is a kind of a partial Anaſarca, and very ſeldom happens, unleſs ſome other parts of the body are dropſical: 2. In an Aſcites the 2.
proceſs of the peritonæum, or rather the cyſtis hernialis, ſometimes fills with water,

 and

(t) Hiſtoire de l'Academ. des Scienſ. & Manget. Bibliothec. p. 70.

(u) Turner's Art of Surgery, vol. 1. p. 218. Sharp's Operat. &c.

and becomes of the ſhape of an inteſtine. This proceſs is the ſeat of all true herniæ, and therefore this kind of diſtention is frequently taken for a rupture; but if water is the cauſe of the tumor, it will eaſily paſs back again into the abdomen (*v*), if the party be laid upon his back and the tumor
3. preſſed gently with one's hand. 3. Water ſometimes gets between the inner coat of the ſcrotum, and the external (*w*) covering of the teſticle. This very ſeldom is an original diſtemper, but frequently comes where perſons have long been afflicted with an Aſcites, Anaſarca, or Dropſy of the breaſt. It may be known thus: firſt, the tumor comes on by degrees; ſecondly, the ſcrotum feels harder than in the foregoing caſe; thirdly, if a candle be held on the farther ſide of it, in a dark room, the bag will ſeem to
4. be tranſparent. 4. Water lies ſometimes between this external coat called tunica vaginalis, and the internal one called albuginea; as alſo between this and the ſubſtance or body of the teſticle. This is generally an original diſorder, and may thus be diſcovered:

(*v*) Boerhaave's aphor. 1227.

(*w*) P. Ægin. lib. 6. c. 62. C. Celſus, lib. 7. c. 18.

vered: firſt, it is often cauſed by a fall or bruiſe; ſecondly, there is greater pain than in any of the forgoing caſes; thirdly, the tumor is harder, lies deeper, and does not ſo eaſily receive the impreſſion of our fingers, as in the foregoing; fourthly, but it is ſofter and more pellucid than a ſarcocele, or fleſhy rupture; fifthly, a hernia ventoſa is ſofter than this, and does not always continue of the ſame ſize as this generally does.

Having ſaid thus much concerning the Dropſy, or watery ſwellings of the ſeveral parts of a human body, before I come to treat of the methods of cure, it may not be amiſs to ſay ſomething of the Anaſarca, or univerſal Dropſy. Of the Anaſarca.

When a human body is ſwelled all over, from head to foot, looks pale like a corpſe, and eaſily retains the impreſſion of our fingers, moſt authors call the diſorder an Anaſarca. A phlegmacy, or leucophlegmacy is of the ſame nature, and only differs from it in degree; for the former always begins where the latter ends, according to Foreſtus, Gorrhæus, and many others. Its name.

Dr. Willis will have this diſtemper alſo to be divided into the general and particular Anaſarca; but when only a limb or two are

affected, the tumor is for the moſt part ſaid to be an Ædoma, or ædomatous ſwelling.

Cauſe.

The cauſe of this diſorder is doubtleſs the ſame with that of the ſeveral kinds of Dropſies before mentioned. The lymphatics are ſpread all over the body, and the membrana adipoſa muſt certainly have a great number of them, not only to ſupply the fat, but the other juices which are exhauſted by muſcular motion. Theſe veſſels are exceeding fine, and the diameters of them very ſmall in this part; ſo that obſtructions may eaſily be cauſed, from whence a diſtention of the part muſt neceſſarily follow. This membrane not only covers all the muſcles, but paſſes likewiſe through the interſtices of them. Both in dropſical and fat people, the muſcles themſelves continue of the ſame ſize and ſhape as they were before theſe accidents happened. Upon diſſecting the bodies of ſuch as have died of particular diſorders, I have frequently found this membrane vaſtly diſtended in a few hours by the fermentation of the juices, the pores of the ſkin being totally obſtructed. This membrane is the ſeat of a great number of diſorders, whoſe origin has not yet been ſufficiently explained. It is but lately

The part affected.

that

that the great Boerhaave proved it to be the ſeat of all venereal ulcers; and I am apt to think all cutaneous eruptions, not excepting the ſmall-pox, have from hence their origin. However this may be, I believe every one allows it to be the ſeat of the Anaſarca; which, as it acknowledges the ſame cauſe with the ſeveral kinds of Dropſies before enumerated, muſt conſequently give way to the ſame method of cure.

CHAP. VI.

Of Dropſies that have been cured by ſimple Medicines.

FROM what has been ſaid in the foregoing chapters, the nature of the Dropſy is, I hope, ſufficiently explained. The ſeveral kinds of this terrible diſtemper have been enumerated: the prognoſtic and diagnoſtic ſigns of it have been laid down in as plain a manner as poſſible. Before I come to treat of the general methods of cure, I ſhall produce ſome few hiſtories out of many that have been wrought by ſimple medicines. As the frame and make of a human body is and will be the ſame in all ages, the ſame things that have formerly given relief, will hereafter without doubt, ſometimes prove ſerviceable. This, in my opinion is the only ſure way of fixing the method of cure in this and all other diſorders. A man may in his cloſet write a mathematical theory of diſeaſes, and afterwards compoſe a number of caſes that will

exactly

exactly tally with his hypothesis, which may perhaps be false, notwithstanding all his demonstrations, and may be so far from relieving the afflicted, that it may increase the disorder and hasten their end. Most medicines were at first found out by chance and observation (*x*). Abstracted reason never yet produced any thing of this kind. Before physic was reduced to an art, such things as upon trial were found serviceable in the disorders which mankind was troubled with, were written in tables and hung up in temples, that they might easily again be made use of upon occasion. If Pliny may be believed, the method of giving glysters, and the art of letting blood, were taught mankind by the Ibis and Hippopotamos, two irrational creatures, that were common in Egypt. In my opinion, then, the only sure foundation for a just method of practice must be laid, in shewing what medicines have cured particular distempers: the manner of their operating upon human bodies, and the several matters whereof they consist, may afterwards be considered and explained, according

Medicines, how found out at first.

(*x*) See Corn. Celsus, & Gab. Fallop. op. p. 43. c. 8. Mr. Geffrey's Treatise of Drugs in voce Cort. Peruv. &c.

cording to the rules of philoſophy or mathematics.

SECT. I. *Dropſy of the* HEAD.

Cured by iſſues.

Hiſt. 1. A child, about four years of age, having his head ſwelled to an extraordinary ſize, the face full and pale, and the eye-brows and eye-lids prodigiouſly puffed up, was cured by fontanels or iſſues behind the ears (*y*).

By cautery.

Hiſt. 2. A gentleman, forty years of age, could get no ſleep for a long time together. At length a tumor being diſcovered on the back part of his head under the ſkin, a cautery was applied to it. A yellow ſort of water was hereby diſcharged, in conſiderable quantities for many days together, which entirely removed all his complaints (*z*).

By Guido's bandage.

Hiſt. 3. A new-born infant having an hydrocephalus, the ſutures of his head being very wide, was cured in fifteen or twenty days by the bandage of Guido, without any other means (*a*).

SECT.

(*y*) Wiſeman's Surg. vol. 1. p. 219.

(*z*) C. Piſo de Coll. Seroſ. Obſ. 2. See alſo J. Schenkii Obſ. Med. l. 1. p. 10.

(*a*) River. Op. Med. p. 571. Obſ. 6.

SECT. II. *Dropsy of the* BREAST.

Hist. 4. A young gentleman at Oxford was relieved in a Dropsy of the breast, by purging with calomel and resin of jalap. He afterwards took a diuretic and pectoral apozem, and by this means was perfectly cured (*b*). By calomel and resin of jalap.

Hist. 5. A young gentleman of a strong constitution, much used to hunting and other violent exercises, at length had a large tumor in his throat. The left side of the lungs seemed to be swelled, and the heart to be thrust out of its place towards the right side. After this had continued some time; he thought something burst in his throat, and in half an hour's time, a humour seemed to drop from the top of his breast to the bottom, which was not only perceived by him, but heard also by the bystanders. He continued hearty, and so took no care of himself, till the motion and sound of water could easily be heard, when he moved his body forward, or turned it from side to side. A cautery was applied between the sixth and seventh vertebræ, a silver By cautery.

(*b*) Willis de Pector. Hydrop. p. 236. River. Obs. 3. cent. 4. Musitan de Pulmon. Hydrop. p. 392.

ſilver pipe was put into the wound, and about ſix ounces of a thick, white, milky matter, like chyle, was let out. The next day, as much more was taken away; but on the third, the diſcharge being increaſed, he became fainty, and fell into a fever. As ſoon as he grew better, a leſs quantity was taken away at a time, till the breaſt was quite emptied. He then carried the pipe with a ſtopple in his breaſt, whereby once in four and twenty hours, he diſcharged what matter had been collected in that time. He made uſe of very few medicines, but, after ſome months, growing weary of the pipe, he left it off, and ſoon after his breaſt filled again, as was evident by the ſound and fluctuation of the water. A ſecond operation was deſigned, but nature made a way for it herſelf and relieved him *(c)*.

SECT. III. *Dropſy of the* ABDOMEN, *or* ASCITES.

Hiſt. 6. A man had his belly ſwelled and extended to a prodigious degree, was grown ſo weak and breathed ſo ſhort, that he was thought to be expiring. In his extremity he

(c) Willis de Pectoris Hydrope, p. 229, 230, &c.

he was ordered to take three grains of elaterium, and to repeat it twice more, interposing one day betwixt each of the two doses. This he did, and perfectly recovered from his Dropsy (*d*). By Elaterium.

Hist. 7. A woman, who was thought past recovery in an Ascites, was cured by taking bolusses made of gutta gamba from twelve to twenty grains, with one drop of oil of cinnamon, and as much syrup of buckthorn as would bring it to a proper consistency (*e*). By gutta gamba.

Hist. 8. Dr. Strother assures us, that he has cured several persons of Dropsies, by giving them a drachm or two of rhubarb in an opening decoction every three or four days. Scholtzius in his epistles gives a remarkable history of a person that was cured of a Dropsy, by taking every day as much rhubarb, as would keep his body open (*f*). Matt. de Gradi says, that one of the dukes of Milan was cured of this distemper, by taking two drachms of the troches of rhubarb By rhubarb.

(*d*) Sir R. Blackmore on the Dropsy, p. 67. Etmull. op. Med. p. 300.

(*e*) Willis de Ascit. p. 273.

(*f*) Marcell. Donat. de Med. Histor. Mirab. p. 422.

barb twice a week: and Michael Paſchalius cured another by the ſame method (*g*).

By ſena and butcher's broom.

Hiſt. 9. A poor man, very far gone in an Aſcites, was cured of it by taking a decoction of butcher's broom, and purging two or three times with a ſimple infuſion of ſena. This was done not by the advice of a learned phyſician, but of a poor country-woman (*h*).

Extract of ſpurge.

Hiſt. 10. A perſon was cured of an Aſcites by taking a drachm of the extract of ſpurge, diſſolved in about five ounces of whey. This was only taken three times, at the diſtance of as many days (*i*).

This author was very ſucceſsful in the cure of this as well as many other diſtempers. This extract was his favourite medicine; and as he delighted in ſimple ones, it does not appear, that he made uſe of above two more in his practice upon this diſtemper.

Sal prunelle.

Hiſt. 11. Riverius mentions a perſon that was cured of an Aſcites, by taking ſal prunelle in every thing that he drank, for a month together (*k*).

Hiſt.

(*g*) River. Prax. Med. p. 201.
(*h*) River. Obſ. 52. Cent. 3.
(*i*) M. Ruland. op. Med. cent. 4 cur. 14.
(*k*) River. op. Med. p. 582. Obſ. 2.

Hist. 12. In Holland and Germany they have a way of preserving cabbage, by laying it with salt in a proper vessel, stratum super stratum. A woman near seventy years of age, who had been afflicted with an Ascites for a long time, by the advice of a woman in the neighbourhood, drank of this pickle heated. She was confined to her bed, and by this means sweat much, and made large quantities of urine, which entirely carried off the disorder (*l*). By the liquor of pickled cabbage.

Hist. 13. A man being very hot in the summer-time, drank some cold water; whereupon his belly swelled immediately to a great degree. He was advised to take the juice of centaury, which grew plentifully in the fields thereabout. This he did, and the next night made a great quantity of water, and had thirty stools; which entirely took away the tumor (*m*). By the juice of centaury.

Hist. 14. A countryman, who had taken a great number of medicines for an Ascites, but to no purpose, was at last ordered to eat garlic every day, seeing he had no fever. This caused him to make a great deal of urine. It also purged him, and By eating of garlic.

so

(*l*) Th. Bon. Med. Sept. Collat. p. 719.

(*m*) Ibid. p. 721.

ſo reſtored him to a perfect ſtate of health *(n)*.

By the juice of garlic.

Hiſt. 15. A woman, whoſe legs and belly were both ſwelled to a great degree, was cured by drinking the juice of garlic in broth, by the advice of an old woman. Many more inſtances of perſons that have been cured by this root, may be met with in Bartholine's obſervations *(o)*.

By juice of parſley, &c.

Hiſt. 16. A poor woman twenty-five years of age, being ill of a Dropſy, by the advice and direction of an old woman, took a handful of parſley leaves, wrapped them up in a napkin, put hot coals under them, and then beat them in a mortar, pouring upon them a ſufficient quantity of white wine to fetch out the juice by preſſure to the quantity of a glaſs full. This ſhe took every morning for a month, and in it the bones of a certain animal dried in the ſun and reduced to powder. By this means ſhe was perfectly recovered *(p)*.

By juice of plantain.

Hiſt. 17. An old woman cured a Dropſy by giving him the juice of plaintain boiled

was

(*n*) P. Foreſt. Obſ. 27. p. 237.
(*o*) Cent. 1. Hiſt. 74.
(*p*) River. Op. Med. Obſ. 5. p. 571.

in a jug till it was reduced to half the quantity for many days together (*q*).

T. Bonnet cured one of his own children of an Ascites with the juice of dandelion, by which plant many others have found relief in this disorder. By juice of dandelion.

Hist. 18. Etmuller greatly commends ground ivy and wormwood in the cure of a dropsy; and says, that a woman, left off by her physicians as incurable, was recovered from this distemper by drinking the juice of iris, and applying the leaves of ground-ivy to her legs. Ground ivy, and wormwood. Juice of iris.

Hist. 19. Forestus tells us of a woman that was cured of an Anasarca by a looseness (*r*); and also of a barber's wife, who by drinking spring-water, contrary to the advice and desire of her husband and physicians, fell into a looseness in two days after, and voided a great quantity of black blood by the hæmorrhoids, and by this means was entirely cured of her Dropsy. By a looseness. From spring water.

Hist. 20. A vintner, a free liver, fell into a jaundice; and then, as the usual stage is, into an Ascites. He was prodigiously

(*q*) River. Prax. Med. p. 209.

(*r*) Obs. 31. p. 245. and Obs. 27. p. 238. This last history is taken from Langius, Epist. 12. Lib. 2.

ſwelled all over, belly, back, ſides, thighs, and legs, inſomuch that he was given over by the phyſicians. In this condition he was carried to Sadler's Wells at Iſlington, where labouring under an inextinguiſhable thirſt, he with much difficulty prevailed upon his wife to let him drink as much of thoſe waters as he could, for then he ſaid he ſhould die well ſatisfied that ſhe loved him. Between four o'clock in the afternoon, and nine or ten at night, he drank fourteen quarts of water; but made not one drop in all that time. Then he ſunk down in his chair, broke out into a cold clammy ſweat, and all that were about him looked upon him to be dead. He was then laid upon the bed, and in half an hour's time, there was heard a ſmall rattling noiſe, like that of a coach on a diſtant gravel-way, and ſoon after he began to piſs. In an hour's time he made ſeven or eight quarts of water, and had two or three ſtools. Then he began to ſpeak, and deſired ſome warm ſack, which they gave him. After this he fell into a profound ſleep, in which he both ſweat, and dribbled his urine all that night. The next day he drank four or five quarts more of the ſame water, and had two ſtools,

By ſpring water.

ſtools, thin and watery. He piſſed on, and drank on, more or leſs for five or ſix days together, taking all that while nothing for food but thin mutton broth, and ſometimes a little ſack; and by this means he perfectly recovered (*s*).

Hiſt. 21. One James Crook, a poor man, fifty-ſix years of age, was cured of a Dropſy, jaundice, palſy, rheumatic pains, and an inveterate old pain in his back of ſix years ſtanding, by only going three times into the cold bath. This made him piſs much more than he drank, and likewiſe made him diſcharge from his noſe a great quantity of bilious, yellow matter. Now though the cure of the Dropſy, ſays our author, may be accounted for, yet how the icteric matter ſhould be thrown off by the noſe, whoever will tell me that, erit mihi magnus Apollo (*t*).

By cold bathing.

Hiſt. 22. One Mergone, a fiſherman, near Mantua, whoſe belly was prodigiouſly ſwelled, was entirely cured of it by conſtant

(*s*) Dr. Baynard and Sir John Floyer's Hiſt. of cold bathing, p. 458. See a like caſe in Langius's Epiſtles, tom. 2. ep. 12. and another in Ruland, Op. Med. cent. 4. cur. 97.

(*t*) See Baynard and Floyer's Hiſt. of, &c. p. 217.

and hard labour, without the leaſt aſſiſtance from any kind of medicines (*u*).

Hiſt. 23. A woman at Rome, whoſe huſband had long laboured under a Dropſy, and had ſpent moſt of his ſubſtance in medicines, was reſolved to poiſon him. Upon this, ſhe dries a toad, reduces it to powder, and gives it him in his drink. This made him make a great quantity of water, and cured him, contrary to her expectation (*v*).

By a toad.

Hiſt. 24. A woman, whoſe belly was very much diſtended with water, by chance fell down; whereupon ſhe voided a large quantity of urine immediately, and in twenty-four hours ſhe diſcharged ſeven gallons this way. Hereupon ſhe became exceeding faint; but was refreſhed by Spaniſh wine, jelly of hartſhorn, and confection of alkermes, and continued well above a year (*w*).

By a fall.

Hiſt. 25. A man that was dropſical all over from head to toe, who had taken many medicines, by the advice of phyſicians, to no purpoſe, and who was given over by them

(*u*) J. Schenk. Obſ. Med. lib. 3. p. 418.

(*v*) Ibid. p. 420.

(*w*) Strother's Pharmac. Pract. p. 8. Th. Bon. Med. Sept. Collat. p. 641, 642. See alſo Holler. Scholiagraph. ad. c. 39. de Morb. internis.

them all, went to ſea, where he vomited very much. After this he uſed exerciſe, and ſo was perfectly cured (*x*). By going to ſea.

Franciſcus de Saviis mentions a dropſical perſon, who was ſeized with a ſpontaneous vomiting twice, and ſo diſcharged the whole quantity of water which cauſed the dropſical tumor in his belly (*y*).

Hiſt. 26. A gentlewoman was cured of an Anaſarca by applying bladders filled with hot water to the bottoms of her feet, and under her arms. This made her ſweat profuſely. Then ſhe fell into a looſeneſs, which continued eight days, and in a month's time ſhe was perfectly recovered (*z*). By ſweating with hot water outwardly.

Hiſt. 27. Langius, Lipſius, and Marcellus Donatus do each of them mention a countryman, who being ill of a Dropſy, went into a Baker's oven whilſt it was hot, and by this means ſweat away the diſeaſe (*a*); and Mangetus (*b*) from Albrectus gives a hiſtory of a woman, who had an Aſcites that would not yield to medicines, In a baker's oven.

(*x*) P. Foreſt. Obſ. 32. p. 246.

(*y*) Marcell. Donat. de Med. Hiſtor. mirab. p. 424.

(*z*) T. Bonnet's Med. Sept. Collat. p. 720.

(*a*) Etmull. Op. Med. p. 301. Marcell. Donat. de Med. Hiſt. Mirab. p. 426.

(*b*) Biblioth. Med. vol. 1. p. 66.

and therefore the paracenteſis only remaining to be tried, was propoſed to her, which ſo affrighted her, that ſhe began to ſweat in the hypochondria, and continued by fits to do ſo, till the water which diſtended her belly was entirely conſumed.

With fear.

Hiſt. 28. A gentleman who, for violent nocturnal pains that afflicted him, was allowed opium once a week, fell at length into an Aſcites and Anaſarca. He was ſoon ſwelled to that degree, that he was not able to turn himſelf in his bed. He was extremely averſe to all kind of medicines except opium. The caſe being looked upon as deſperate, he was allowed to take this as often, and as much as he pleaſed. He took it every day, and conſtantly increaſed the doſe; ſo that it is hardly to be believed how much he took of this medicine in a ſhort time. His thirſt hereupon abated; he ſweat profuſely every night; made a great quantity of urine; and in a month's time, loſt all his ſwelling, was freed from his pains, had a good ſtomach, and was able to walk abroad *(c)*.

With opium.

Hiſt.

(c) Willis Pharmac. rational. p. 301, 302. Wallæus ſays (Method. Medend. p. 314.) Hydropici unius grani Opii exhibitione moriuntur, but how true may be ſeen by this hiſtory.

Hist. 29. A man of thirty laboured under an Anasarca, and was swelled from head to foot, so that he became blind. As he was beginning a course of medicines, he was seized with an hæmorrhage at the right nostril, whereby he lost above four pound of blood. This cured his Dropsy; but because he would not take medicines, his blindness continued (*d*). By an hæmorrhage.

Hist. 30. A woman, of twenty years of age, was cured of an Ascites by tapping. She wore a leaden canula three months, whereby the remains of the water being all discharged, she recovered a good state of health (*e*). By tapping.

Hist. 31. A countryman was cured of an Ascites, by an incision made in his belly, out of which fifteen jugs of water were taken. A. Nuck, in his Adenographia curiosa, quotes this history from Pechelin. By incision.

Hist. 32. A fisherman, being ill of a Dropsy and epilepsy, and often convulsed, was at length cured by an abscess that was formed in the scrotum and thighs. Etmuller quotes this history from Wallonius. By an abscess.

(*d*) Fabrit. Hild. Obs. 50. cent. 1.

(*e*) A. Nuck Adenograph. curios. p. 123.

Hiſt. 33. A young man of twenty, by irregular living, and drinking water, contracted an ill habit of body, and at length fell into an Anaſarca. This was entirely carried off by five abſceſſes, formed in different parts of his body, which diſcharged more than thirteen pound of purulent matter (*f*).

By an accident.

Hiſt. 34. A woman was ſo ill of an Aſcites that her life was deſpaired of. She threw herſelf from a high place down to the ground; when her belly hit againſt a ſtone, burſt, and diſcharged all the water contained in it (*g*). This hiſtory is ſo remarkable, that both Foreſtus and Sckenkius have tranſcribed it into their collections. The author is ſomewhat particular in his expreſſions, for he calls the diſtemper Aqua inter Cutem, which name is generally given to the Anaſarca; and the part which burſt he ſays was the uterus, though both the other authors ſay it was the belly. Savonarola and Paſchalius make mention of ſuch another accidental cure.

Hiſt.

(*f*) T. Bonnet's Med. Sept. collat. p. 736.

(*g*) Beneven. de Abdit. Morbor. Cauſ. c. 109. See Th. Fienus, Tract. 6. p. 85. and Marcell. Donat. de Med. Hiſt. mirab. p. 425.

Hist. 35. A man of forty, after a tertian ague fell into an Ascites. His belly swelled to a marvellous size, and his navel grew as big as a goose egg. This at length burst, ran for three months, and entirely carried off the dropsical humour *(h)*. A boy who was given over by his physicians, as dying of a Dropsy, drank a vast quantity of spring water, which burst his navel, whereby he was perfectly recovered *(i)*.

By the navel's bursting.

Hist. 36. An old gentleman, sixty-three years of age, and a young woman of twenty-four, both of them labouring under an Ascites, and troubled with such a shortness of breath, that they could hardly go across the room, were cured by pricking the veins at the end of the ring finger, by the persuasion of a surgeon, after deobstruent, purging and diuretic medicines had proved ineffectual (*k*).

By pricking the ends of the ring finger.

Hist. 37. A man at Paris, who was afflicted with a Dropsy, had a burning coal fell upon

By a burn.

(h) Fabrit. Hildan. Obs. 47. cent. 1. See also Wiseman's Surg. vol. 1. p. 202. P. Forest. Obs. 27, 33, &c. River. Obs. 82. cent. 4. T. Bonnet's Med. Sept. collat. p. 701, &c.

(i) See Hecksteter. Obs. Med. Cas. 10. Decad. 2.

(k) Fabrit. Hild. Obs. 41. & 92. cent. 6. J. Schenk. Obs. Med. lib. 3.

upon one of his legs as he was ſitting by the fire. This raiſed a bliſter, whereby the dropſical humour was diſcharged, and the man reſtored to a perfect ſtate of health (*l*).

Hiſt. 38. Marcellus Donatus (*m*) mentions a young woman, his father's patient, who laboured under a ſuppreſſion of urine, and want of ſtools, upon which a tumor of the belly ſucceeded. About twenty days after a citron-coloured water, very fetid, to the quantity of two quarts a day, oozed out through the pores of the ſkin below the navel, which kept her alive many months.

By the pores of the ſkin.

By abſtaining from drink.

Hiſt. 39. A man, after a quartan ague, fell into a Dropſy. Aſclepiades commanded him to faſt two days. On the third he was freed from both the fever and Dropſy; ſo that he allowed him meat and wine (*n*).

Since the time of Aſclepiades many perſons have been cured by the ſame method; and more by abſtaining from all ſorts of drink for a conſiderable time together. A nobleman of Piedmont (*o*) and an Engliſh

(*l*) T. Bonnet's Med. Sept. collat. p. 641. See Schenk. ſupra.

(*m*) De Med. Hiſtor. mirab. p. 689.

(*n*) C. Celſus, lib. 3. c. 21.

(*o*) Fabr. Hild. Obſ. 41. cent. 4. See M. Liſter's Hiſt. 17.

liſh apothecary *(p)* were both cured of an Aſcites by drinking nothing for thirty days; Sir Samuel Ongley *(p)* drank nothing for ſome months; the counteſs of Falaix *(q)*, and the countryman, mentioned by Benevenius *(r)*, drank nothing for a whole year; and were all perfectly recovered; whereof ſome, eſpecially the counteſs, lived to a very great age.

Hiſt. 40. A girl of eight years of age, was cured of an Aſcites in two months time, by a conſerve of raiſins. They were boiled to a pulp in white wine, and then paſſed through a ſieve *(s)*. By raiſins.

Hiſt. 41. Valeriola cured a man of an Aſcites, by a decoction of guaiacum, which he made him drink for forty days together *(t)*; and Olaus Borricius cured another, by the ſame method, when all the ſymptoms were of the very worſt kind. The upper parts of the body were extremely emaciated, By guaiacum.

(*p*) Dr. Allen's Synop. Med. p. 310, 311. from Van Helmont.

(*q*) T. Bonnet's Med. Sept. collat. p. 718.

(*r*) De Abdit. Morbor. Cauſ. cap. 13. See more ſuch hiſtories in P. Foreſt. Obſ. 27. p. 237. Al. Maſſar. p. 192. River. Op. Med. Obſ. 21. p. 570, &c.

(*s*) River. Obſ. 44. cent. 4.

(*t*) Ibid. Prax. Med. p. 203.

emaciated, the appetite entirely loſt, and there was little or no evacuation, either by ſtool, or urine. He could ſeldom get any ſleep, and at the ſame time had a vomiting of blood upon him, which ſometimes amounted to a pint at a time. All theſe diſorders were entirely removed, by a decoction of guaiacum and ſaſſafras (*u*). I was lately with a gentlewoman, who was ill of an Aſcites. One of her neighbours told her ſhe had been cured of that diſtemper, by taking a tea-ſpoonful of the tincture of guaiacum in a glaſs of rum, two or three times a day. It was tried by my patient, but without ſucceſs, though it worked well both by ſtool and urine.

Hiſt. 42. Nic. Florentinus (*v*) gives a hiſtory of a man and two women who were cured of a Dropſy, by eating larks that fed upon parſley, together with ſome biſket, a little wine, and a powder made of cinnamon, and other ſpices. This is a very ſtrange kind of cure, inſomuch that Gatenaria ſays he can hardly believe it to be true (*w*).

By larks.

Hiſt.

(*u*) Act. Med. Hafnienſ. vol. 1.

(*v*) Serm. 5. c. 25.

(*w*) P. Foreſt. Obſ. 36. p. 256. Marcell. Donat. de Med. Hiſt. mir. p. 421.

Hist. 43. A person was cured of a Dropsy, by taking a decoction made of the extremities of oak boughs every morning for fifteen days together (*x*). By a decoction of oak.

Hist. 44. Avicenna tells us of a woman that was cured of an Ascites by eating an incredible quantity of pomegranate seeds. By pomegranate seeds.

Hist. 45. One John Stranger, of Bononia, about fifty years of age, of a thin hectical habit of body, which frequently threatened a consumption, at length fell into a Dropsy. He entirely cured himself of it, by eating pepper for a long time together in large quantities (*y*). By pepper.

Hist. 46. Many persons have been cured of Dropsies by heating white pebble stones red hot, cooling them in white wine, and drinking a glass of it every morning (*z*). By pebble stones in white wine.

Hist. 47. The virtues of linseed in pleurisies, coughs, consumptions, &c. are well known to every apothecary; but few have experienced the benefits of it in an Ascites: yet Bonnet (*a*) gives two histories of patients, one of which was perfectly cured, the other for some time relieved in this disorder, By linseed oil.

(*x*) River. Op. Med. p. 582. Obs. 9.
(*y*) J. Schenk. Obs. Med. lib. 2.
(*z*) River. Op. Med. p. 581. Obs. 8.
(*a*) Med. Sept. collat. p. 72.

order, by a diſtillation of this oil given in drops.

Hiſt. 48. Baeſdorpius cured the emperor Charles the fifth of an Aſcites, after other medicines had proved ineffectual, with ſquama æris (*b*).

By ſquama æris.

Hiſt. 49. A dropſical perſon who was given over by his phyſicians, underſtanding that wine was good for him, took ſuch an averſion to water, that he not only drank, but boiled his meat, waſhed his hands, face, and all his body for a long time together in ſack, and recovered (*c*).

By ſack.

Hiſt. 50. A noble lady, ſixty years of age, labouring under an Aſcites, which was attended with violent pains, was adviſed to make uſe of a bath of new milk. This ſhe tried, which gave her eaſe; but in a ſhort time it was turned to a perfect cheeſe curd; ſo that her ſervants were forced to cut it from about her body, and ſhe had much ado to eſcape with life (*d*). Whether the ſweat, or perſpirable matter, of all dropſical perſons is attended with this acid quality,

By new milk.

(*b*) P. Foreſt. Obſ. 37. p. 257.

(*c*) Al. Maſſar. p. 192. Marcell. Donat. de Med. Hiſtor. mirab. p. 422.

(*d*) Act. Med. Hafnienſ. vol. 4.

quality, may perhaps deſerve the enquiry of the learned.

Hiſt. 51. Fabr. Hildanus (*e*) mentions an old man of ſeventy, who after a tertian ague fell into an Aſcites, which was perfectly carried off by ſome purging medicines, and drinking his own urine every morning, for the ſpace of four months together. By urine.

SECT. IV. *Obſervations on the foregoing Hiſtories.*

From the foregoing hiſtories it is evident, that all ſorts of Dropſies may ſometimes be cured by one or more of theſe five ways. 1ſt, by vomiting: 2d, by purging: 3d, by increaſing the quantity of urine: 4th, by ſweat: 5th, by wounds made in the ſkin, or fleſh. Nature frequently relieves herſelf by ſome one or more of the four firſt, and ſo not only prevents this, but other diſtempers falling upon us; and when they are actually formed, often cures them in this manner. After her example, art has found out medicines to eaſe us when ſhe is overpowered, and is not able to free herſelf from the burthen. Artificial wounds are of different

1. Dropſies how curable in general.

Five ways.

(*e*) Obſ. 51. cent. 3.

different kinds. Some are made by inſtruments, and others by topical applications. Of the firſt ſort are tapping, and inciſions made in the legs and other parts of the body: of the latter are all ſuch as are made by cauteries, whether actual, potential, or bliſters. But whichever of theſe ways are made choice of, we ſhould always be ſure to begin with it as ſoon as poſſible, and before the diſtemper has got to too great a head; for the obſervation of Perſius *(f)* is undeniably true in all, but more eſpecially in this dangerous diſorder; "Helleborum fruſtra cùm jam cutis ægra tumebit, poſcentes videas. Venienti occurrite morbo."

2. None of them certain.

Though from theſe hiſtories it is certain that Dropſies have ſometimes been cured by the means related above, yet we muſt not expect to meet with the ſame ſucceſs at all times. There are too many hiſtories recorded in books, and too many that are freſh in our own memories, of ſuch perſons as have tried every thing that could be thought of in this caſe, without ſucceſs. Believe me, at preſent there is no method, or medicine to be met with that is infallible in this diſtemper. No, the number of ſpecifics is at

(*f*) Satyr 3.

at present very small. When our countryman Dr. Sydenham had given relief two or three times in an Ascites by syrup of buckthorn, as he himself informs us, he was apt to imagine that this medicine would always be of the same service; but he was soon convinced of his mistake, by the loss of his patient, and hazard of his reputation. As the honesty and good-nature of this great man is sufficiently evident in this account which he has left us, from it we may learn three things at least: first, not to be too fond of a medicine in any case; or at least not to be so attached to it as not to change it, when we find it does not answer our expectation: secondly, not to persevere too long in any method, where we find it does not succeed; for though, according to Seneca (*g*), nothing hinders the recovery of our health so much as the frequent change of medicines, yet we should not always depend upon one, though never so great a favourite. Here lies the great and essential difference between a rational and regular physician and a quack. The former knows how to alter his medicines in time, and the latter goes on in the same

(*g*) Epist. 2.

road, from the firſt ſeizure to the death of his patient. Thirdly, that a few trials are not ſufficient to give any medicine the name or character of a ſpecific: long experience can only do this. How many have we ſeen and heard of lately that have been cried up for infallible, that would not ſtand the teſt, though protected by the greateſt profeſſors?

5. Bandage neceſſary.

Bandage has ſometimes been of great ſervice, when young children have been dropſical in the head; but it may, perhaps, bear a diſpute whether the like method may be proper in anaſarcous ſwellings of the legs. The great objection to this kind of practice is drawn from the hazard the patient runs of having the lymph, or watery humour, by this means forced upwards, and ſo fixed upon ſome of thoſe more noble parts that are immediately neceſſary to life. This might, perhaps, ſometimes be the caſe, if no evacuation was to be uſed at the time of ſuch bandage; but cannot, I think, where that is not wanting: and yet to give objection its full force, if we ſuppoſe no evacution to be made, the humour would moſt certainly have an equal, if not a better chance to paſs off either by ſtool, urine, or perſpi-

perſpiration, than to fix upon any ſuch part. Laced ſtockings, therefore, have been deſervedly recommended in this diſorder, by Mr. Wiſeman and others; and the ſucceſs has frequently, and does daily, anſwer the preſcriber's expectations.

4. Trifling medicines cure ſtubborn diſorders.

It is ſurpriſing to find how ſmall and inſignificant a thing will ſometimes give relief, when the greateſt and moſt approved medicines have failed. What the Greeks called idioſyncraſy, or a particular conſtitution, we meet with in almoſt every day's practice. Who could imagine that an electuary of raiſins, a decoction of oak-buds, or a little juice of plantain, ſhould cure the moſt inveterate Aſcites, if hiſtory had not furniſhed us with ſuch examples? There is nothing, I am ſure, in the nature of any of theſe medicines, that ſeems adequate to ſuch a ſtubborn diſorder. How often do we hear of great cures performed by ſome trifling inſignificant thing, adviſed by ſome poor illiterate old woman, when great and learned phyſicians have pronounced the caſe incurable? Hence we may alſo learn, not to adhere too cloſely to a favourite medicine, when we find it does not relieve. Variety of medicines may and ought to be tried,

and no caſe ſhould be given over as loſt, ſo long as life remains; but then the medicines made uſe of ſhould be ſimple ones. There are two great objections againſt the compounding of medicines, at leaſt againſt a great number of ingredients. 1ſt, When a cure is performed by ſuch a one, who can tell which ingredient to aſcribe it to? 2d, Though the ſeveral ingredients may all be very proper in themſelves, yet who knows they ſhall be ſo when thus mixed together? Pliny, in his Natural Hiſtory, book 22. chap. 23. ſays, the reaſon why he only treated of ſimple medicines was, becauſe in theſe it appeared what nature could do; but in mixtures there was nothing but uncertain conjecture; for the agreement and diſagreement of nature cannot be ſufficiently known to any one in mixtures: and Ronſeius de Scorbuto, p. 19, ſays, that the more ſimple medicines are, the more powerfully they are wont to exert their virtue and efficacy. Acids, we know, ferment with alkalies, and when that fermentation is over, they acquire a very different nature from what each of them had before. From rye flower and allum a phoſphorus may be prepared, that ſhall take fire by only expo-

Simple medicines recommended.

ſing

ſing it to the air, a property which neither of the ingredients have when alone. Filings of ſteel and ſulphur mixed together, will become actually hot, and break out into a flame, by dropping cold water upon them; and burnt marble or lime will become hot after the ſame manner. Since this is the caſe, how careful ought we to be in making uſe of compound medicines in extemporaneous practice? Who knows when ſeveral things have been mixed, and ſtood long together, what new properties they may acquire, or what effect they may have on a human body? He that preſcribes the feweſt and moſt ſimple medicines will always be looked upon as the beſt phyſician. Bleeding is at length found to be the only true cure of all kinds of inflammation, eſpecially of a pleuriſy; Briſtol water for a diabetes, and the Jeſuits bark for an ague, hæmorrhage, and mortification. Dr. Sydenham deſerves more from mankind for teaching us the uſe of riding on horſeback, in ſome kind of conſumptions; of ſpirits of vitriol and diacodium in the ſmallpox; and of ſpirits of hartſhorn in the convulſions of young children; than if he had left us whole volumes of elaborate preſcrip-

tions. Sir John Floyer and Dr. Baynard gained no ſmall reputation by reſtoring the uſe of cold bathing. Dr. Radcliffe did more with the teſtacea, than others could do by all the moſt coſtly drugs of the Indies. Water and mercury, if rightly managed, will really do wonders in the Dropſy, and happy would it be for mankind, could a ſimple ſpecific be found out for this, as there has been for ſome other diſtempers; but this I fear, from the nature of it, and what has been ſaid above, is not at preſent to be expected.

5. Of ſpring-water,

The cure of the vintner (Hiſt. 20.) is one of the moſt remarkable that was ever effected in this or perhaps any other diſtemper. Sir John Baynard ſays he knows not how to account for it, and therefore thinks it muſt remain among the occulta till the laſt day. "So much water," ſays he, "drank ſo "ſuddenly, one would have thought, ſhould "have totally extinguiſhed the natural heat, "already too low, weak and languid. Be-"ſides, there is no property in water that "we know of, whereby it ſhould take away "a hard ſcirrhous liver, or reſtore a decayed "and rotten omentum, or any other of the "viſcera, ſodden and ſtewed in claret and

"other

"other fermented liquors to the deſtruction "of their tone and texture." A great part of what is here advanced by the doctor is indiſputably true; and therefore for me to attempt a ſolution of this difficulty, would be looked upon as preſumption; otherwiſe we might ſuppoſe, that few or none of the lymphatics were broken; that the juices, which were extremely viſcid, were attenuated by the great quantity of water, which he poured down in ſo ſhort a time, and ſo were fitted to paſs off quick, by all the emunctories of the body, the inteſtines, ureters, and ſkin; and laſtly, that the great weight and preſſure being once removed, nature repaired the breach, as we ſee ſhe frequently does in ulcers of the lungs, bladder, and other parts of the body, where we cannot come to apply medicines. Be this as it will, the uſe I would make of this hiſtory is, that there is a poſſibility of curing the moſt deſperate Dropſy by ſpring-water. This is directly contrary to Dr. Sydenham's theory and practice in this diſtemper. Here he abſolutely forbids every thing ſmall, as ſuppoſing the blood too poor and thin, which is frequently otherwiſe, as we have already proved. If the cauſes of

in the cure of a Dropſy.

diſorders, and this aphoriſm of Hippocrates, that contraries cure contraries, are to be regarded, I am ſure water muſt do more in the cure of this diſtemper than wine. Where one diſorder of this kind now-a-days comes from too low living, thouſands, I fear, come from exceſs; but of this more hereafter. Another uſe to be made of this hiſtory is, that ſimple medicines, and ſuch as ſeem no way adequate to the diſtemper, will ſometimes ſucceed beyond all the rules of art, and the ſtrongeſt demonſtrations (*b*). Providence, I have often thought, has thus ordained it, to confound the wiſdom of this world, and to make the man of reaſon know how ſmall his knowledge is, and yet how great his pride and vanity.

6. Tapping, when uſeful.

From theſe hiſtories it plainly appears, that Dropſies of all kinds may ſometimes be cured by one kind or other of evacuation. So long as the water is contained in the lymphatics, medicines may be of ſervice: when theſe are burſt, the water has ſometimes been diſcharged by tapping, by the burſting of the navel, or by ſome kind of wounds made in a proper part of the body. When any fluid of a human body has been long

(*b*) See Obſ. 4. above.

long out of the veſſels, wherein it uſed to circulate, I do not think it poſſible by any means to be brought back again into them, but muſt by a proper inſtrument be let out. After inflammations, where matter is once formed, the thing is plain to the meaneſt capacity. With regard to the lymphatics, I think, the caſe is pretty much the ſame. It is certain there are abſorbing veſſels in a human body, by which ſome particles of matter may be admitted into the maſs of blood from without; but then I think they muſt be exceeding fine, fluid and perfectly free from viſcidity. The lymph immediately thickens by the heat of the body, when once cut of its proper veſſels, ſo that little or none can poſſibly be carried off this way. I doubt not but there are ſome vapours conſtantly betwixt the foldings of the guts, in the cavity of the abdomen, which are as conſtantly carried off this way, either by the bladder or ſome other part; but whenever theſe come to be too viſcid and large for theſe kind of outlets, they muſt there remain, till let out by a proper inſtrument. Mr. Petit (*i*) has made an experiment, which leaves

Abſorbing veſſels in a human body.

(*i*) Treatiſe of the Diſeaſes of the Bones, P. 1. ch. 16. p. 189. See alſo Philoſ. Tranſ. abr. vol. 3. p. 78. where is a like experiment by Dr. William Muſgrave.

leaves no room for doubt in the caſe. He ſays, If a gallon of warm water be injected into the abdomen of a living dog, and the wound be cloſed for two hours, and then opened, that one drop of the injected water will not be diſcharged at the wound. Whence it is evident, 1ſt, that not only in this, but all other cavities of the body, where any liquid is ſeparated for lubricating the parts, and making their motion eaſy, the ſuperfluous parts of ſuch liquid, muſt by ſome abſorbing veſſels, where there is no manifeſt outlet, be reconveyed into the maſs of blood and humours. 2d, That this ſuperfluity may ſometimes, by heat of the body or other means, become too groſs to paſs off by the uſual way, and muſt therefore occaſion Dropſies and other diſorders of the part. 3d, That no ſtimulating medicines can be of any ſervice in a Dropſy, where the lymphatics are broken. All cathartic, diuretic, diaphoretic and other kind of medicines, can be of no ſervice in this caſe. As all theſe act with a ſtimulus, increaſe the circulation of the blood, and make an evacuation, they muſt conſequently weaken, and are therefore at ſuch times ſo far from doing good, that they muſt of neceſſity

No ſtimulating medicines good when the lymphatics are burſt.

ceſſity do harm. Hence it is we ſo often hear of the ſudden death of dropſical perſons, after ſtrong purges given by ſome unſkilful hand. Let me, therefore, lay it down as a truth to be remembered, by every judicious practitioner, and in every part of this treatiſe, that after the lymphatics are once burſt, no forcing medicines of any kind are to be given in this diſtemper.

CHAP.

CHAP. VII.

Of the cure of a Dropsy by internal Means.

HAVING in the foregoing chapter shewn all the ways whereby it is possible to cure a Dropsy, I shall here treat of each of them more at large, and also shall produce the most effectual remedies for this purpose. Before I do this, it may not perhaps be improper to say a word or two concerning the operation of medicines in general, and the way to ease thirst, which is frequently a most troublesome companion in this distemper.

SECT. I. *Several Ways to ease Thirst.*

Dr. Sydenham says small liquors increase thirst (*k*) in this disease, and therefore advises

(*k*) This precept, I think, is only founded upon poetry: Ovid says in this case, Quo plus sunt potæ, plus sitiuntur aquæ; and Horace,

Crescit indulgens sibi dirus Hydrops,
Nec sitim pellit, nisi causa morbi
Fugerit venis & aquosus albo,
Corpore languor.

viſes to gargle the mouth with ſp. vitriol, to hold tamarinds in it, or chew a lemon; but not to ſwallow any of them for fear of their coldneſs. This caution, I think, might better have been ſpared, than mentioned on this occaſion; for cooling things can do but little injury, where perſons are burnt up with internal heat. Tamarinds purge as well as cool, and all acids, of what kind ſoever, help to thin viſcid, ſizy humours, and fit them for ſecretion. Small punch is a moſt powerful diuretic; ſo is elix. vitriol, the ſp. vitriol here mentioned, and all the preparations of nitre, ſulphur, &c. but ſure thoſe medicines that provoke urine can never do harm in a Dropſy. Nay theſe kind of medicines have opened the obſtructed kidneys, and cured a ſuppreſſion of urine, when all others have proved ineffectual (*l*).

By acids.

M. Liſter in his ſeventeenth caſe ſays, the woman he there ſpeaks of was adviſed, but not by him, for her great thirſt, to hold upon her tongue, once a day, or oftner, a little thin bit of bread, well toaſted, and dipped in ſpirits of wine, to make her ſpit; which

By bread dipped in ſpirits of wine.

(*l*) Philoſ. Tranſ. abridg. vol. 3. p. 148. and Fuller's Hauſtus diureticus acidus.

which ſhe did, and it anſwered her expectation.

By green tea.

Wainwright, in his treatiſe on the non-naturals, recommends green tea, ſteeped in rheniſh wine, which is both a diuretic and ſtrengthens the ſtomach at the ſame time.

By nitre.

Sir Theod. Mayerne, Etmuller, and others, adviſe the preparations of nitre, which by the by are much colder than the acids Dr. Sydenham cautions us ſo ſtrongly againſt. The lapis or ſal prunellæ, both of the London and Scotch Diſpenſatory, the Sp. nitri dulcis, Fuller's decoctum coccineum, and the decoctum nitroſum in the Edinburgh Diſpenſatory, are all excellent medicines for this purpoſe.

Mayerne likewiſe adviſes the patient to hold a drachm of the following medicine in his mouth now and then, ad ſitim fallendam.

R. mucilag. ſem. pſyl. & cydon. extract. in aq. roſ. rub. ℥ij. ſacch. cand. ʒiij. ſp. vitriol. gtt. 3. m. f. mucilago.

By ſp. of ſulphur.

Van. Helmont ſays, a few drops of Sp. of ſulphur will ſooner allay thirſt than ſome quarts of water; and ſpirits of vitriol may deſerve the ſame encomium.

By chewing maſtick.

Fernelius recommends the chewing of maſtick or ſuch like things, which he ſays do

do not only draw water from the head, but from the ſtomach alſo and abdomen; and Riverius is of the ſame opinion.

By vomiting.

C. Celſus tells us, that one Metrodorus, a diſciple of Epicurus, laboured under a Dropſy; and that not being able to bear ſuch an intolerable thirſt, he abſtained from liquids as long as he was able, and then drank till he vomited (*m*). Hereupon the author makes this ſeaſonable obſervation, That it is true by this means the diſeaſe may more eaſily be endured; but if any of the liquid is retained in the ſtomach, it will increaſe the diſorder, and is therefore of opinion, that this method ſhould not be tried in every conſtitution.

Proved by Laf. Hall Case. J. J.

SECT. II. *Of Medicines in general.*

It is very apparent, that there is but one canal or paſſage from the mouth to the anus; the anatomiſts divide it into ſeveral imaginary parts. In ſome places it is much wider, thicker, and fuller of wrinkles, than it is in others. All medicines taken in at the mouth muſt be conſidered as they act immediately upon this tube; or as they affect the fluids and ſolids of the whole body, after

(*m*) C. Celſus, Lib. 3. c. 21.

after they are taken up by the lacteals, and by them have been conveyed into the mass of blood.

Every thing that acts so powerfully upon the first part of the canal, or stomach, as to invert its natural motion, and cause it to throw up its contents, is called an emetic or vomit. If it passes over the pylorus without disordering the stomach; if it increases the peristaltic or vermicular motion of the guts, and so makes the excrements pass off quicker than usual by the anus; we then give it the name of a cathartic or purge: lastly, a medicine, that is entirely, or for the greatest part, conveyed into the mass of blood, without affecting this first passage, receives different names as it acts more immediately upon this or that part of the body. If the pores of the skin are the seat of action, it is named a diaphoretic medicine; if the urinary passages, a diuretic, &c.

An emetic, what.

A cathartic.

A diaphoretic.

A diuretic.

Observations.

From these definitions it follows, 1st, that emetics and cathartics are, or may be, the same kind of medicines; that they only differ in degrees of strength; that an emetic may be reduced to a cathartic, and, vice versa, a cathartic may be increased to an emetic

emetic ſometimes, the former by diminiſhing, and the latter by augmenting the quantity of the medicine. Hence we may eaſily ſee how a vomit frequently gives a motion to ſtool, and a purge often gives a puke or two, before or during its operation. 2d, That every medicine which paſſes the lacteals, muſt affect the whole maſs of blood, and therefore muſt act upon other parts of the body, as well as that from whence it takes its name: 3d, That diuretic, diaphoretic, &c. medicines, which are generally taken up by the lacteals, may ſometimes become cathartic or emetic. Thus diaphoretic antimony, if it has lain long expoſed to the air, will, in pretty ſtrong conſtitutions, excite vomiting, as Zwelfer and Boyle have obſerved; and all diuretics, in weak ones, will frequently purge, as I have often found by experience. 4th, That all thoſe medicines which paſs by the lacteals into the maſs of blood, muſt be extremely uncertain in their operation, ſince they muſt affect other parts of the body, beſides that which is principally deſigned. 5th, That not only the foregoing, but every medicine in general, unleſs exactly proportioned to the conſtitution, and other circumſtances, may,

nay often muſt, increaſe other ſecretions, beſides that which we principally have in view. Thus emetics often give ſtools, and provoke ſweat; cathartics often vomit, provoke urine, ſweat, &c. But to be ſomewhat more particular.

Emetics, as we obſerved, excite a motion of the ſtomach directly contrary to nature. The diaphragm, muſcles of the belly and breaſt, are all forced to aſſiſt in this operation. Theſe kind of medicines act very briſkly upon the nervous coat of the ſtomach, and there cauſe a convulſion. There is not much time during the operation of a vomit, for many of its particles to paſs the lacteals; nay, I think it next to impoſſible that any of them ſhould, ſince the bowels are ſo very compreſſed by the muſcles of the belly, every time there is a convulſion of the ſtomach. The ſweats, therefore, that are occaſioned by vomits, are not owing to their acting upon the whole maſs of blood, but to the convulſive motion of the nerves, the ſickneſs and faintneſs of the patient, and the great relaxation, cauſed, firſt, by the warm liquor drank in the operation; and ſecond, by the nauſea from the medicine ſo diſagreeable to the ſtomach. Mr. Chirac, a

Sweat in vomiting, whence.

phyſician

physician at Montpelier, would make us believe, the force of the muscles employed in the action of vomiting are at least equal to two hundred and sixty thousand pound weight. If so, no one I think should wonder at the sweats which are caused by these kind of medicines: the greater wonder is, how any man is able to support such a burden, without immediate destruction of the whole machine *(u)*.

What has been said of the profuse deliquious sweats occasioned by vomits is equally true of those caused by strong purges. However this be, it is most certain, that such rough medicines as these ought not to be given without great caution and circumspection; for if they do not give relief, they must certainly do harm, being too active not to affect the constitution some way or other. When the juices are become too viscid, and the fibres too much relaxed, so that the circulation cannot be carried on in the capillary, or most minute vessels, emetics and rough purges must certainly do admirable service. They not only unload the obstructed vessels, but by their vellications give fresh force and elasticity to

(*n*) See Dr. Cheney's Theory of Fevers, p. 89.

the weakened fibres. On the other hand, where any fluid of a human body is extravasated, as it is impossible by any art to bring it back again into its proper vessels, so it must be extremely ridiculous to attempt to do it by these violent methods. If the patient should have the good fortune to survive the operation, yet it must doubtless bring him much nearer to the grave. This case we often meet with, when these kinds of medicines are injudiciously administered by quacks and other bold pretenders, as we before observed.

Of specific purges.

The ancients were of opinion, that some sort of purges were more proper than others in particular diseases. Accordingly some they called cholagogues, others phlegmagogues, and some hydragogues, according as they were thought to carry off choler, phlegm, or water. Dr. James Keil (*o*), thinks he has made this doctrine of the ancients probable at least, from abstracted reasoning and mechanic principles; but Quincy (*p*) demonstrates, from the same principles, that there can be no specific purges; but that all cathartics of the same strength will be equally

(*o*) Tentam. Med. Phys. p. 112.

(*p*) Pharm. p. 177.

equally ſerviceable in all caſes. From theſe two gentlemen we may plainly ſee, what certainty is to be expected from mathematical demonſtrations, as they are called, when applied to the operation of medicines, the cauſe and origin of diſeaſes, &c. If we may be allowed to judge of medicines by the ſmell, taſte, &c. one would make no ſcruple to aſſert poſitively, that there might be ſuch things as ſpecific cathartics. We find as great a difference in the ſenſible qualities of theſe kinds of medicines, as there can poſſibly be in the humours of a man's body; ſo that we may fairly from hence aſſert the poſſibility of ſuch kind of medicines. Beſides, we daily ſee dropſical perſons, that have tried ſeveral ſorts of cathartics, at laſt relieved by one which is not ſeemingly ſo ſtrong as ſome that they have before taken; and hence, as I have elſewhere obſerved, it is certain we ought not in this diſtemper to ſtick too cloſely to any one medicine, eſpecially of the purging kind.

What quantity of water may be diſcharged by a doſe of purging phyſic.

It is ſurpriſing to ſee what vaſt quantities of water, or aqueous humours, are ſometimes diſcharged by ſtool in dropſical caſes. Many authors have attempted, but few have given, any tolerable account of this phænomenon.

By the intestinal glands.

Peyerus and Brunner in the last century discovered an innumerable number of small glands all along the tube of the intestines, whose excretory ducts open into this great canal. Whether they are as numerous as those of the skin, or whether their excretory ducts are of the same diameter with them, is not yet exactly determined. There are also other large ones, which discharge their contents immediately into this canal, viz. the liver, pancreas, &c. Dr. J. Keil (*q*) says that the bile is discharged into the intestines at the rate of two drachms an hour at the least. Mr. Cheselden (*r*) ingenuously confesses, that he knows no way of computing with any exactness, what quantity of bile is thus secreted by the liver in a given time; but supposes it may be four times as much as all the salival glands secrete in the same time, or twenty-four ounces at every meal; and that the pancreas in the same time discharges three ounces. From these two large ducts he supposes the large separations made from the blood by cathartics, may better be accounted for, than from the foregoing glands, which are scarce visible.

By the liver, pancreas, &c.

Without

(*q*) Tentam. Med. Phys. p. 98.
(*r*) Anatom. p. 158. ch. 5.

Without doubt, both the greater and the leſſer glands are forced by cathartics to part with their contents, much quicker than they do in a natural ſtate. If the ſkin of a man's body contains two thouſand ſix hundred and forty ſquare inches, the guts will contain one thouſand four hundred and forty, or more than half as many, according to Dr. Friend (*s*). Suppoſe then, a cathartic of the ſtrongeſt kind was to act all along the bowels, as a bliſter does upon the ſkin; that the diſcharges made by both, from a given part ſhould in a given time be equal; that ſtrong cathartics act four times quicker than bliſters; and laſtly, that a bliſter five inches ſquare would, in a given time, diſcharge an ounce of ſerum: hence it would follow, that in a fourth part of the ſame time a ſtrong cathartic would diſcharge at leaſt four pound of matter, for the whole ſkin, if bliſtered, would diſcharge about nine. By them all.

Secondly, Suppoſe the particles of a cathartic ſhould paſs the lacteals, and mix with the blood and juices, they muſt certainly increaſe the circulation, thin theſe fluids, and dilate the mouths of all the excretory ducts of the great canal. If the

(*s*) Comment. on Hippocr. de Morb. Epidem. page 125, 126.

diameter of these vessels becomes as wide again as in a natural state. Dr. Friend *(s)* has proved that, by this dilatation only, about four pound and a half of serum, would be evacuated in eight hours time, without taking the pancreatic juice into the account.

3. Lastly, suppose a strong cathartic should act both these ways, which is more than probable it does, a gallon of serum may then possibly be discharged by stool, in the common time a purge is in working. If the mouths of these vessels should become wider in any other proportion, the quantity of matter discharged would be increased according to the squares of the diameters of these vessels; and hence it is apparent, how great a quantity of humours may possibly be discharged by strong cathartics in a little time.

It is generally supposed by all kind of writers, that rough purges, during the time of their operation, pass the lacteals, and so mixing with the chyle and blood, occasion fermentations, rarefactions, &c. whereby they remove obstructions in every even the remotest part of the body; but that the more gentle ones act only upon the grand canal,

(s) Ibid. Comment. on Hippocr.

canal, or firſt paſſages. This doctrine, I think, has no foundation in nature, nay, is directly contrary to matter of fact. Every one knows, that the longer any liquid is in paſſing from the mouth to the anus, the more of its fineſt particles may, nay muſt, be taken up by the lacteal veſſels; and conſequently, the more gentle any purging medicine is in its operation, the more of it muſt be conveyed into the blood. In common practice we daily ſee great alterations follow the repetition of purging medicines in ſmall quantities for ſeveral days together. Rhubarb is ſo ſlow a worker, that I have often ſeen it in the urine, before it has given a ſtool; and we have an extraordinary inſtance below *(t)*, where caſſia, taken thus two or three days together, cauſed a prodigious flux of urine. Calomel we find is not ſo apt upon taking cold to raiſe a ſalivation when given with gutta gamba, jalap, ſcammony, &c. as when mixed with conſerve of roſes or diaſcordium, and kept in the body all night. Good reaſon, then, had Dr. Friend (*u*) to ſay, that when we give mercurial purges, in order to remove obſtructions,

(t) See Dr. Cheney's new Theory of Fevers, p. 98.
(*u*) Emmenolog. p. 111.

obſtructions, the number of ſtools, or quantity of matter diſcharged per annum, is very little to be regarded; becauſe the efficacy of the medicine will be as great, if not greater, where this viſible evacuation is inconſiderable. The caſe being as it is here repreſented, how ſhall we be able to account for the operation of rough purges in making ſo great an evacuation in a ſhort time? I anſwer, very eaſily. As theſe medicines muſt act with a ſtimulus, the quicker they paſs through us, the more frequently muſt the excretory ducts of the glands in the inteſtines be opened. The juices then running off ſo quick per annum, an inverted circulation of the juices muſt follow. The motion which before was from the bowels to the ſkin, will now be turned from the ſkin to the bowels. When, therefore, obſtructions and humours are carried off thus, it muſt be by revulſion; but when they mix with the blood, they act as real deobſtruents, and rarifying the viſcid juices fit them to paſs off by all the other glands of the body. From this explanation of the operation of medicines, many uſeful doctrines, with regard to practice, follow: 1ſt, The danger in giving rough purges will be directly

rectly as the times in which they paſs through the inteſtines. 2d, The danger in giving ſtrong vomits will be to that of rough purges, ſuppoſing they act equally in the ſame time, as the length of the ſtomach is to that of all the inteſtines; and if the times in which they act are unequal, this danger muſt be in a compound ratio of the length of the parts they act upon directly, and their reſpective times of action. 3d, Rough purges, in acute diſtempers, muſt be exceeding dangerous, unleſs they be given at the very beginning; ſince the foregoing ratio muſt be increaſed by that of the time ſince the obſtruction began inverſely, or the viſcidity of the blood and juices. In fevers, then, theſe kind of medicines muſt often do harm, viz. if they invert the circulation of the juices, and throw too great a quantity upon the bowels. 4th, The roughest purgers, when given in ſmall quantities, muſt be the moſt powerful deobſtruents, and ſo leſs dangerous than when given in a larger. 5th, The ſweats cauſed by rough vomits and purges can give no relief, ſince they are not the effect of the medicine in the cuticular glands, but of

too

too great evacution, a nauſea and ſickneſs, or too great an expence of animal ſpirits.

SECT. III. *The Cure of Dropſies.*

1. By vomits.

The ancients ſay little about vomits, eſpecially thoſe of the rougher kind, in the cure of a Dropſy. Themiſon began the cure of an Aſcites with a vomit of ſquills or hellebore, and ordered it to be repeated three times in a (*v*) month. C. Celſus ſays, if the belly ſwells with pain, it is neceſſary to vomit every day, or every other day, after dinner. Here I ſuppoſe this author muſt be underſtood of ſuch mild emetics only, as occaſion the ſtomach to part with its contents eaſily, and ſo take away that fulneſs and diſtention ſo troubleſome to the patient.

Weak ones recommended.

Many approve of gentle vomits at the beginning of a Dropſy, both before and after meat, but forbid ſtrong ones, for they weaken very greatly (*w*).

Hercules (*x*), the Saxon, ſuſpects ſtrong vomits; for 1ſt, If they do not ſucceed, the peritonæum, he ſays, may be broken: 2d, The

(*v*) C. Aurel. p. 490.

(*w*) P. Foreſt. Obſ. 32. p. 248. and Marcell. Donat. de Med. Hiſt. mirab. p. 424.

(*x*) Prælect. p. 203.

2d, The force of the water upwards may endanger ſuffocation; and Nicolas Florentinus (*y*) mentions one who died by this operation.

Barbette (*z*) diſapproves of ſtrong vomits in this diſorder, for theſe following reaſons: 1ſt, They diſturb the ſick, and make them fainty: 2d, They weaken the ſtomach, ſo that it never after digeſts its food as it ought. This he had often obſerved, and concludes thus, Let other men do as they pleaſe, for my part, I neither love nor order them. Strong ones rejected.

Sir Theod. Mayerne (*a*) condemns rough vomits in this diſtemper, eſpecially thoſe made of ſtibium and ſays, When the ſtomach nauſeates what it takes, ſo as to require a vomit, it ſhould not be ſtronger than ſome preparation of vitriol, or the ripe ſeeds of the greater cataputia, made with almonds into the form of an emulſion.

Etmuller (*b*), however, is of opinion, that weak vomits will not work upon dropſical perſons, either becauſe of the atonia or weakneſs of the ſtomach, or elſe becauſe the Approved.

(*y*) Serm. 5. ch. 15. (*z*) Prax. Med. p. 163.
(*a*) Ibid. p. 285. (*b*) Op. Med. p. 299.

the medicines are altered, and fixed as it were by the ſalſo-acid ſeroſities contained therein; and therefore they ought, he ſays, to be ſtrong, and given in a large doſe.

This author is the firſt who recommends ſtrong vomits, and his reaſons for ſo doing are here produced, which in my opinion are very indifferent ones. For many people in Dropſies are very much inclined of themſelves to vomit; ſo that warm water alone is ſufficient to bring up the contents of the ſtomach. Metrodorus, as we obſerved above from Celſus, cured his thirſt and his Dropſy, by abſtaining as long as he could from all ſorts of liquids, and then drinking a ſufficient quantity of any liquor to make him vomit; but he does not ſo much as hint that he made uſe of any medicine in this diſorder to procure the deſired effect.

Dr. Sydenham, I ſuppoſe, from the foregoing authority, recommends, and is extremely pleaſed with an infuſion of crocus metallorum, commonly called vinum benedictum, given to ʒiſs, or ʒjj, every morning, as the ſtrength of the patient will allow. He relates a hiſtory of a poor woman to whom he gave ſix doſes at leaſt of this his favourite medicine, without doing her any

manner

manner of ſervice, as far as I am able to judge. For he confeſſes, that by this means the vapours were raiſed in her to a very great degree, and that he could not make a cure of her till he had recourſe to ſuch purges as are accounted ſpecifics in dropſical diſorders.

This method has found but little encouragement among the learned, as being, I ſuppoſe too rough, and ſeldom or never giving relief. Dr. Sydenham himſelf, to do him juſtice, ſeems to have been convinced of his error in being too fond of this medicine, as well as ſyrup of buckthorn; for in his Proceſſus Integri, which was written at the latter end of his days for the inſtruction of his own ſon, he does not ſo much as mention this kind of evacuation in the cure of a Dropſy, which he ſurely would, if he had found it ſo neceſſary as he once apprehended it to be. The great Boerhave indeed ſays, Aphor. 1245, that the vomits made uſe of in this diſtemper ſhould be ſtrong and often repeated. But as he gives no reaſon for this practice, nor any hiſtory of cures wrought by it, we may look upon it as a gratis dictum, ſupported only by his own great name, and that of Etmuller and Sydenham. Rejected.

Sydenham. If I may be allowed to ſpeak in this controverſy, I muſt ſay, that neither in my reading or practice, did I ever meet with a dropſical caſe, which was cured by ſtrong emetics; but have ſometimes known them do harm.

Foreſtus tells us of a perſon that was cured of a Dropſy by vomiting; but then medicines had no hand in it, for this was only cauſed by the ſhip's motion, the patient having been adviſed to go to ſea. Very juſtly, therefore, in my opinion, does M. Liſter diſapprove this way of proceeding by ſtrong vomits, for theſe following reaſons: 1ſt, Becauſe that great practitioner Sir Theod. Mayerne, as we before obſerved, condemned rough vomits; and I think I may ſafely add, that all the antient and many modern phyſicians do the ſame. 2d, Theſe kind of medicines increaſe thirſt, and occaſion the patient to drink too much. 3d, Such an operation muſt with great difficulty be undergone by perſons ſo ſhort breathed as thoſe generally are who are much ſwelled with a Dropſy. 4th, More water may be diſcharged by ſtool than can poſſibly be carried off by this method. 5th, To theſe give me leave to add

add a fifth, which is the great danger there muſt be of burſting the lymphatics and other veſſels, too much already ſtuffed with viſcid and ſizy humours. Fabr. Hildanus (*d*) gives us a hiſtory of a girl that was killed by a doſe of crocus metallorum in powder, the omentum being burſt in the lower part of it by the violence of the operation; of a woman who loſt her hearing, by a doſe of vinum benedictum; and of another who became a fool, after a ſtrong vomit given her by an empiric: ſo that with good reaſon he bids us be cautious in giving ſtrong vomits in cachectic and dropſical caſes.

I myſelf knew a colonel of the army, who had a jaundice, Aſcites, anaſarcous ſwellings of the legs, &c. for which he was adviſed to take ſome oxymel of ſquills. He was in all appearance, when he took it, as well as he had been for ſome days before; he bore the operation well, and ſeemed relieved, but died ſuddenly in leſs than an hour's time. There was about a gallon of water found in his belly.

(*d*) Obſ. 79. Cent. 4. See alſo his Works, p. 914. where a man was killed by ſuch a doſe.

Riverius ſays, that in Dropſies of the womb women ſhould be vomited twice a week; but he does not ſay what kind of medicines ſhould be uſed, whether rough ones, or thoſe that are more mild and gentle in their operation.

Oxymel of ſquills.

For my own part, I never durſt give any ſtronger emetic in a Dropſy than oxymel of ſquills. This is a ſafe and good medicine, and may frequently be repeated withont doing any damage to the ſtomach, provided the lymphatics are not burſt. It powerfully attenuates tough viſcid humours, and fits them to paſs off by the glands of the kidneys, and all the other emunctories of the body, when given in ſo ſmall a quantity, or ſo guarded, as to paſs out of the ſtomach without much irritation. In Dropſies of the breaſt eſpecially, it does admirable ſervice; and relieves a Dyſpnæa more effectually than moſt other medicines.

A man by taking only ſix drachms of it mixed with ſmall cinnamon water, by a little at a time, piſſed ſix quarts in four and twenty hours, when he had made but very little water for a long time before. In this manner it is often given with extraordinary ſucceſs.

When

When given as an emetic, it does not leave that nauſea and ſickneſs at the ſtomach after the operation, as ſome rougher medicines generally do.

The vinum ſcilliticum is of the ſame nature; and the pulp of ſquills, made up with ſapo and gum ammoniacum, either into pills or boluſes, has often done admirable ſervice.

SECT. IV. *Of Purges.*

The works of the ancients abound with precepts about purging in a Dropſy; and many of them were of opinion that a cure could not be obtained by any other method. All Dropſies, ſays Al. Trallian, are to be cured by beginning with evacuations; but the Aſcites and Tympanites by purging only. By purges.

A looſeneſs cures a Leucophlegmacy, ſays Hippocrates. This propoſition is often repeated in his works; but in his Coaca we are told, that ſuch a one muſt not take away the appetite; for it is moſt certain a Dropſy always increaſes when this declines. Purging medicines ought to be given, ſays the ſame author, till all the water of a Dropſy is entirely diſcharged (*e*).

 Upon

(*e*) De Affect. Sect. 5. p. 546.

Upon this aſſertion Dr. Sydenham, I ſuppoſe, founds this general precept concerning the cure of a Dropſy: Where the ſtrength of the patient will allow it, purge every day, or every other day, till all the water is carried off; for otherwiſe the patient will fill again betwixt the purges, and ſo we ſhall get no ground of the diſorder.

A caution about their uſe.

If the belly falls upon purging, there is hopes of a cure; but if it ſwells after this evacution, and but little water is brought away by urine, death ought to be expected (*f*). So that purges may often do more harm than good in this obſtinate diſorder.

This obſervation Hollerius, myſelf, and many others, have often found true by experience; and it is ſo conſiderable a one, that I think it ought never to be out of the mind of every practitioner.

Another.

I have always found where briſk purges give great pain in the ſmall of the back, as if they were forcing a paſſage through the kidneys, yet cauſe little or no ſecretion of urine, that we may be certain the lymphatics are already burſt, and that conſequently this method ought not to be purſued any farther.

(*f*) Willis de Aſcit. p. 271.

farther. When the caſe is thus, I believe we may certainly pronounce it incurable; for wherever I have obſerved this pain to be violent, and, as ſome have expreſſed it, like as if the back was breaking, water has always, upon diſſection, been found in the cavity of the abdomen.

A diarrhœa ſtops the urine.

Unleſs purges, therefore, open the urinary paſſages, as well as occaſion ſtools, they do more harm than good very frequently; for the belly is apt to ſwell after them, and the patient grows worſe. I knew an old gentleman, ſays Dwight, de Hydrope, who laboured under a Dropſy. He made water pretty freely all along, till he fell into a diarrhœa; upon which his urine ceaſed; but that being overcome by medicines, this returned. After three days the looſeneſs came on again, and the urine abated as before; but he was a ſecond time relieved by the ſame method; ſo that purging ſometimes obſtructs the urinary paſſages.

Purges when to be given.

Etmuller tells us, that we ought in a Dropſy to give purges in the wain of the moon; for this diſeaſe, continues he, obſerves the increaſe and decreaſe of this heavenly body.

Lindanus,

Of ſtrong purges.

Lindanus, Etmuller, and ſeveral others, are poſitive that we ſhould not purge often in a Dropſy, and tell us, when we give theſe kind of medicines they ſhould always be of the briſker ſort.

Riverius ſays, that ſtrong purges ſhould not be uſed in this diſorder too often, according to Galen; for they weaken the body, and ſo occaſion the water to increaſe.

Dr. Sydenham ſays, that ſuch purges as work ſlowly and weakly, do more harm than good in Dropſies; and yet in the very ſame page he ſays, regard muſt be had to the nature of the patient, when we give purges in this diſorder; and that we ought to learn from him whether he was eaſy or hard to be worked when in health, for fear of an hypercatharſis. Theſe precepts certainly contradict one another, for if weak purges do harm, we have no occaſion to conſult the patient how he was to be worked before the diſeaſe began, ſince ſtrong ones only can relieve him; nor is the fear of an hypercatharſis ſo much to be regarded, ſo long as we have a medicine ſo infallible in this caſe as opium, and its ſeveral preparations, as he himſelf obſerves in the next page following.

J. Fer-

J. Fernelius is very cautious in giving ſtrong purges, and is poſitive that the ſuccus ebuli may be given to weak perſons and pregnant women; but that the reſt of the hydragogues ought not to be adminiſtered to children, old people, or pregnant women; nor to thoſe that are emaciated, are of a bilious conſtitution, have a fever, or any other acute diſeaſe; nor in a hot ſeaſon; and then he concludes, that theſe ſort of rough medicines are only proper for ſtrong perſons, and ſuch as are afflicted with cold and chronical diſorders. Succus ebuli.

Much of the ſame opinion is Dr. Turner in his art of ſurgery, where he ſays, If the bowels are corrupted by the ſtagnating ſerum; the liver ſcirrhous; the patient advanced in years, or reduced by a long and chronical ſickneſs; his heat and appetite deſtroyed; and his ſpirits not ſo much eclipſed, as abſolutely exhauſted; the more you purge with ſtrong cathartics, the more you haſten the ſick man's deſtruction.

Strother ſays, that Wallæus and many others are of opinion, that no ſort of purges do good in an Aſcites. If they mean when the water is extravaſated, I entirely agree with them; for no relief can poſſibly be

had in this caſe, but by tapping. But if the water be ſuppoſed to have diſtended the veſſels only, this kind of evacuation muſt be abſolutely neceſſary. From the hiſtories in chap II. and VI. we may eaſily ſee, how vaſtly the belly, and all the parts of the body, may be ſwelled without a rupture of any kind of veſſels; ſo that we are not immediately, upon ſight of a dropſical belly, to conclude that the water is out of the veſſels of circulation, and ſo forbear trying rough purges and other medicines, though we may ſeemingly have but little reaſon to expect ſucceſs from them; for many perſons have been recovered of this diſeaſe, when the beſt phyſicians have pronounced them incurable.

Of gentle ones.

The ancients generally began the cure of this diſtemper with gentle purges and deobſtruent medicines, and ſo proceeded to the ſtronger cathartics. Al. Trallian ſays, It is better to diſcharge the water by little and little, than by being over haſty, to carry off the patient with the diſeaſe. J. Fernelius and P. Foreſtus cry up rhubarb, as the only ſpecific purge in a Dropſy, and will hardly allow of any rougher medicine. Ad. Occo tell us of a man who was cured of a

Rhubarb.

Dropſy

Dropſy by the conſtant uſe of it. He began with drachms, but roſe by degeees to ounces and pounds. Many years after, a ſervant cut his throat, but he recovered of the wound, and imputed it to the great quantities which he had taken of this medicine (*g*).

The troches of rhubarb are alſo much commended by many authors in this diſtemper, particularly by Matt. de Gradi, as is before obſerved.

The ancients made uſe of ſeveral medicines, both ſimple and compound, in this diſeaſe; which I ſhall only mention, becauſe either the things which now go under the ſame name are not what they were in their time, or elſe by long experience they have been found, not to anſwer the character which they have given them. Such are the ſquama, flos & ærugo æris, lapis cæruleus, Armenius, ſeu lazuli, veratrum album, &c.

Whether it is poſſible there ſhould be ſuch a thing as a ſpecific purging medicine, we have

A ſpecific purge, what.

(*g*) J. Schenk. Obſ. Med. lib. 3. p. 429. This hiſtory is quoted alſo by Montanus, Crato, and many other good authors, as a thing whoſe truth was not in the leaſt to be doubted.

have already ſeen at page 196. M. Liſter however, allows of ſix medicines, which may be called ſuch with reſpect to this diſeaſe; viz. elatorium, ſuccus ebuli, ſuccus iridis, bryonia alba, euphorbium, and gutta gamba. Theſe, he ſays, are the only ones which deſerve this name, and that they have all the properties of a ſpecific; which he ſays are, 1ſt, To attenuate viſcid humours, digeſt and bring away water, opening the excretory veſſels by its own proper and moſt powerful ſtimulus: 2d, to defend the bowels from inflammation, i. e. to warm them without inflammation: 3d, to aſtringe, ſtrengthen and reſtore them to their former tone: 4th, to heal ulcers, &c. To theſe ſix I think may be added, jalap, buckthorn, ſpurge, and mercury, each of which by experience have very often been found to be equally ſerviceable, in this diſeaſe, with any of thoſe before-named.

1. Of jalap.

Of jalap: This root moſt powerfully purges off water, or watry humours. Mr. Bolduc has proved, that it is better give the root itſelf, that any preparation of it, though never ſo laborious or artificial. Poor people generally take as much of it as will lie upon a ſhil-

a ſhilling, mixed with a little ginger in ſome white wine; Sydenham gives it thus:

R. Rad. jalap. pulv. ʒj zz. ℈ſs. ſyrup. de ſpin. cerv. ʒj. vin. alb. ℥jv. m. f. potio, to be taken every morning according to the ſtrength of the patient. This medicine, with a very ſmall alteration, is the potio purgans hydropica in Fuller's Pharmacopœia.

About a third part of calomel, mixed with this root, makes as good a purge, as any the whole materia medica can poſſibly yield. It works without griping, and, if rightly proportioned to the ſtrength of the patient, will make as good a diſcharge as is proper at one time. We love variety now-a-days in every thing; otherwiſe this mixture would ſupply the place of many more coſtly compoſitions, and anſwer the end of the preſcriber much better, with regard to his patient's health and recovery.

The reſin and tincture of this root are the only preparation now in uſe; the former is a briſk, rough purger, and may be given from three grains to half a drachm, and is beſt corrected by ſalt of tartar, ſugar, or the yolk of an egg; but is ſeldom given alone, being chiefly uſed to quicken other purging medicines. A few grains of ſal

ſuccini

ſuccini makes the operation of this medicine much briſker; but it makes it ſo very brittle, as not to be made into pills without difficulty. The tincture is a better medicine, and much more frequently preſcribed. Fuller makes it with tinct. ſal. tartar. and calls it eſſentia uterina; the Scotch with brandy; and Boerhaave ſays, R. Tinct. jalap & ſyrup e ſpin. cerv. $\overline{aa}$ ℥ſs. which is an excellent purge in dropſical caſes.

2. Mechoacan. As jalap is ſometimes called black mechoacan; ſo this plant has frequently the name of white jalap. Their natures, and purging qualities are very much alike, only the latter is ſomewhat weaker than the former. Many authors, and eſpecially Sennertus, are very fond of mechoacan in dropſical diſorders, and prefer it to jalap; but as they are ſo very near akin, I ſhall only mention a medicine, which Mr. Boyle ſays, is an admirable one for a Dropſy. Take an ounce and a half of mechoacan ſliced; infuſe it twenty-four hours in a pint of white wine, and take a glaſs of it every morning, for ſome days. If a little muſtard-ſeed is infuſed along with it, the medicine will ſtill be more powerful.

There

There are two ſorts of elder; ſambucus, or the common elder, of which Matthiolus makes two kinds; and ebulus, or dwarf-elder; their qualities are pretty much the ſame, and each of them are very often given with ſucceſs in Dropſies. Of the former of theſe, we ſometimes keep a ſyrup, and ſpirit, in the ſhops; but if we believe Quincy, neither of them can do much ſervice in this diſeaſe; for a pint of the juice he ſays, may be taken many days together. Dr. Sydenham tells us, and he has authority as well as experience on his ſide, that this plant will purge both upwards and downwards, as well as crocus metallorum. He gives thus, R. Cort. inferior. ſambuc. a ligno deraſ. manip. jjj. aq. font. & lact. vaccin. āā ℔j. coq. ad dimid. One half of this, he ſays, ſhould be drank every morning, and the other half every evening, till the patient recovers. P. Foreſtus (*h*) ſays, if the bark be plucked upwards it vomits, but if downwards it purges. J. Fernelius (*i*) aſſures us, contrary to Matthiolus, and what is here ſaid, that this bark loſes its purging quality by being boiled. The juice of the root, or inward bark, of dwarf-elder may be given to an ounce, 3. Elder.

(*h*) Obſ. 37. (*i*) Method. Med. p. 818.

ounce, or ʒs according to Sennertus. The ſeeds or grains of both elders given in powder to ʒj. very kindly purge watery humours by ſtool, ſays Dr. Willis; and Quincy aſſures us, that the inward bark of the ebulus is a powerful diuretic. Mr. Turnefort, in his Mater. Med. ſays, that emulſions made of elder-ſeeds purge more powerfully than the infuſion of them, becauſe the greater part of the oil is contained therein.

4. Gamboge.

Gamboge, the inſpiſſated juice of India ſpurge (*k*), wonderfully brings away the waters of dropſical perſons by ſtool. It ſometimes vomits, but more ſeldom if it be given with aromatics, or be rubbed with ſp. ſalis, or ſp. vitriol. It may be given, according to Sennertus, to twelve grains. Quincy and Willis ſay, it is beſt corrected by lixivious ſalts, as ſalt of tartar, &c. and that it may be given to a ſcruple at a doſe. Poor people take it frequently by itſelf, to ʒſs or more at a time, without any preparation or detriment. Lindanus, and from him Etmuller, cautions us againſt the uſe of it; becauſe it is apt to inflame the lungs. Hoffman (*l*) calls it a moſt noxious gum, and ſeriouſly diſſuades all

(*k*) Hoffman Conſ. Med. vol. 1. caſ. 93.

(*l*) Hoffm. Conſ. Med. vol. 2. p. 314.

all good men from the uſe of it. I have very frequently given it, but never found it diſorder the lungs. It is true indeed I have ſometimes obſerved, from the uſe of it, a breaking out upon the ſkin in red ſpots, like a raſh, or the ſpots in ſome kinds of fevers; but they always diſappeared without farther detriment. M. Liſter, in order to correct its roughneſs, roaſted and mixed it with ſix times as much ſugar, and then made it into little cakes of a drachm apiece. Sometimes he diſſolved it with the juice of lemons, and then with ſugar made it into cakes as before. Nothing, however can better correct it than calomel: with this it may be made as powerful, and yet as gentle as you pleaſe. This mixture as it has no taſte, is not only proper in this caſe, but full as good a medicine for children as the pulv. cornachini, pulvis baſilicus, &c. and will much more eaſily be taken by them: but care muſt be taken not to continue the uſe of theſe ſtrong medicines long, if they do not give relief, leſt we kill the patient; a caſe that happens too often.

R. Gambog. a gr. 12 ad gr. 16. ol. junip. gtt 2. mithrid. q ſ. f. pill. N°. 3. pro 1a. doſi. Fuller. Pills

R. Gam-

Draught. R. Gambog. gr. 15. vin. alb. & aq. cichor. āā ℥iſs. ſyrup de ſpin. cerv. ℥ſs. m. f. hauſtus. Sydenham.

Electuary. R. Conſ. abſinth. Rom. ℥jj. gutt. gamb. ʒjj. ſpec. aromat. roſ. ol. n. m. expreſſ. āā ʒj. ſyrup roſ. ſol. ℥ſs. m. f. elect. This is the elect. hydropicum of Fuller. About ʒjjj. is a doſe. The author ſays, if the conſerve of common wormwood is made uſe of, the medicine will be exceeding diſagreeable to the palate.

Draught. R. Gambog. & crem. tart. pulv. āā gr. 14, ol. junip. gtt 3, diſſolve diligenter in mortario in vin. alb. ℥jjj. addendo ſacch. alb. ʒiſs m. This is the hauſtus hydragogus of the ſame author, and a good medicine.

Bolus. R. Gambog. gr. 6. merc. dulc. gr. 15. conſ. violar. ʒiſs. m. f. bolus. Willis. Or, R. Gambog. gr. 15, crem. tart. ℈ſs. ſyrup. e ſpin. cerv. q. ſ. f. bol. This ſome commend as much as Dr. Willis does a ſolution of it in the tincture of ſalt of tartar, which he ſays may be given from fifteen to thirty drops.

5. Flower de luce, or flag. Iris cœleſtis, ſeu noſtras, or the common flower de luce, or flag. Dioſcorides, and his commentator Matthiolus, ſpeaks in much praiſe of this plant, to which they attribute

as

as many virtues as any one uſed in the whole art of phyſic. The former recommends it more particularly in coughs, the gripes, watchings, and obſtructions of the menſes; and the latter in the Dropſy, ſtone, tooth-ach, and as a moſt powerful ſternutatory. Fallopius uſed it ſucceſsfully in curing a gonorrhæa. There are ſeveral kinds of this plant, but all of them are pretty much of the ſame nature, for they purge briſkly, and will bring away watry humours from the ſkin, and extreme parts of the body. The juice of the root may be given to ℥ij. ℥iij. vel ℥iv. according to Al. Maſſarius; but it is too ſharp and hot to be given alone, for it burns the mouth, and gives pain, according to Sennertus. It ought therefore to be given in a proper vehicle, or mixed with other appropriate medicines. Etmuller thinks there is ſome ſpecific alterative quality with reſpect to this diſeaſe contained in its acrid pungent taſte; and ſays, the root, freſh cut, and infuſed in wine or whey, may be given to ʒiii. and the clear part of the juice, after it is ſettled, may be given to ʒvj. or ℥j. but that it loſes its purging quality when boiled; and J. Fernelius is of the ſame opinion.

Juice.

Syrup. R. Succ. irid. noſtr. ℔j. aq. cinam. f. ℥jv. mag. gum. de peru. ℥j. macerentur in vaſe bene clauſ. hor. 24. Colatur, adde ſacch. albiſſ. ℔j. ſpec. diarrhod. abbat. & rhab. opt. āā ℥ſs. ſtantal. rub. & rad. anchus āā ʒjj. hæc in nodulo ligat. decoquantur, & f. ſyrupus, qui cum carioph. cinam. & mac. āā ʒj. aromalizetur ut eſt artis.

This ſyrup is a proceſs of A. Mynſincth, who ſays, that in Cachexies and Dropſies of all kinds it is a glorious cathartic, and of divine aſſiſtance; Dropſies having been cured by it, which would give way to no other medicine. Doſ. ℥iſs. vel ℥jj. twice or thrice a week.

Draught 1. R. Succ. ebul. ℥j. ſucc. irid. noſtr. ℥ſs. elater. gr. 6. vel ℈ſs. m. f. potio. M. Liſter.

2. R. Succ. irid, ℥iiij. ſyrup. e ſpin. cerv. ℥j. m. A. Pitcairn.

3. R. Succ. irid. ℥iiij. mann. calabrin. ℥iſs. m. Al. Maſſar.

4. R. Succ. irid. noſtr. ℥iſs. ℥jj. vel ℥iiij. vin. alb. ℥iiij. ſyrup. e ſpin. cerv. vel ſyrup. roſ. ſol. ʒvj. m. f. Hauſt.

This medicine I frequently give in Dropſies, and have often found relief from it, when others have failed, both in the Aſcites and Anaſarca.

Elaterium,

Elaterium, or the inſpiſſated juice of the wild cucumber. This medicine evacuates the water contained in the cavity of the abdomen, more happily than any other. Meſue gave it from ten grains to twenty-two; but its doſe muſt not be more than ſix grains, and it ſhould be corrected with g. tragacanth, bdellium, pſyllium, and cinnamon, according to Sennertus. It ſtimulates the fibres ſo powerfully, that it often brings away blood with the humours. The doſe is from three to fifteen grains; but it ſhould be corrected with aromatics, and other hydragogues, according to Willis. It is the moſt violent of any of the hydragogues, and ſhould not be given to more than four or five grains; for few care to truſt their reputation in its preſcription, unleſs ſuch empirics as have none to loſe, ſays Quincy. Phyſicians we ſee are not agreed about the doſe of this medicine. It is not long ſince a phyſician was tried at Venice for ordering a drachm of it for a woman, and was acquitted (*m*). 6. Elaterium.

Indeed it is a thing impoſſible to ſay what is an exact doſe of this, or any other purging medicine in all conſtitutions. Fallopius ſaw Doſe of medicines uncertain.

(*m*) Al. Maſſarias Op. Med.

a German eat an ounce of ſcammony, without having one motion to ſtool. I once gave an ounce of vinum benedictum to a woman, and at another time four ounces of tinctura ſacra to a man, neither of which medicines cauſed the leaſt ſickneſs or evacution. In the Philoſophical Tranſactions, we have an account of one Mrs. Lovelock, who wanting ſleep in a fever, took in the ſpace of three days one hundred and two grains of London laudanum, three drachms of Venice treacle, and four ounces of diacodium, without cauſing the inclination to reſt; and yet I knew a gentlewoman, who loſt her life by taking ten grains of pil. matthei in a fit of the gravel, after a lying-in, by advice of her apothecary. Of what advantage then can Dr. Cockbourn's tables be to mankind, in which he pretends to fix the doſes of purging and other medicines, to different ages and conſtitutions, by numbers, with the ſame certainty and exactneſs, as if he was giving an anſwer to a queſtion in abſtracted mathematics? Maſſarias never durſt preſcribe more than ſix grains of elaterium, and then always mixed it with more gentle purges. Yet for all this, Lindanus calls it a moſt noble medicine, and ſays, he believes that

that his father and he had cured an hundred persons of the Dropsy by this remedy. Heumius is positive, the water contained in the peritonæum, and abdomen, is only to be brought away by elaterium and euphorbium; these two medicines doing the same to the intestines, as sternutatories do to the nose. Dioscorides affirms, that this medicine forces stools without injuring the stomach: sal gemm. is its best corrector. This was the favourite medicine of M. Lister, and frequently given by him to ten grains at a time with success, when other things had proved ineffectual in this distemper.

R. Elater. gr. 3. jalap ℈j. syrup. violar. ℥j. aq. mirab. ℥ss. m. This draught brought away nine quarts of water without much trouble. M. Lister. Draught.

R. Decoct. sen. gercon. ℥iiij. syrup. e spin. cerv. ℥iss. succ. limon. ℥ss. elater. gr. 4. m. M. Lister. 2.

R. Elater. gr. 4. jalap ʒj. m. f. pulv. Powder.

R. Elater. ʒss. sal. gem. ℈j. miv. cydonior. q. s. f. bolus. Willis. Bolus.

R. Pill. alophang. ʒss. elater. ℈ss. ol. cariophyl. gutt. 3. f. Pill. Willis. Pills.

R. Pill. ex duobus ℈j. elater. gr. 2. f. pill. N°. 3. Sydenham. 2.

Fallopius (*n*) had a particular way of giving this medicine to make Bath waters paſs. If they did not paſs the firſt or ſecond day, he gave pill of euphorbium; if that did not anſwer then, R. Pill aloephang. ℈j. elater. gr. 2. m. f. pill. 1. hor. 1. ante cœnam ſumend. and this he ſays, always had the deſired effect.

7. Euphorbium. Euphorbium. The antients made great uſe of this medicine as an hydragogue; but what we have now-a-days is ſo very violent in its operation, that it brings away the mucus of the bowels, and very often blood, though it be given in a ſmall doſe; ſo that Etmuller, with good reaſon, thinks what now goes under this name, is not the ſame medicine as was uſed formerly. We never give it inwardly, unleſs it be calcined; when it becomes a moſt powerful ſudorific, as I have found by experience.

8. Buck-thorn. Rhamnus. Rhamnus catharticus, ſpina alba, ſpina cervina, ſpina infectoria, or buck-thorn. Of this ſhrub no part is uſed, except the berries. From theſe we make a ſyrup, which Fuller calls ſyrupus domeſticus, becauſe no family ought to be without it. It is an uncertain purger, but ſometimes brings away

(*n*) Fallop. Op. Med. p. 136, and 271.

away abundance of water. It does not hurry the blood, nor make the urine higher coloured, as other ſtrong purges do, if we may believe Dr. Sydenham; only it very much increaſes the thirſt during its operation: but in ſome conſtitutions it will hardly work at all, ſo that it is ſeldom given alone. This author having cured one Mrs. Saltmarſh of a Dropſy with this ſyrup, immediately concluded he had found out an univerſal, infallible medicine in this diſorder; but he ſoon found himſelf deceived. For in another patient, truſting to this medicine only, he gave her ſeveral doſes of it without ſucceſs; when ſhe, finding no relief, diſmiſſed the doctor, and was cured by another perſon.

Bryonia alba, or white briony. The juice of the root of this plant is a very powerful purger of water, according to Helmont and others, though it is not now ſo much uſed as formerly. Dolæus, Tournefort, &c. have a particular way of gathering it in the ſpring, by cutting a hole in the root of it as it grows, then covering it up again, and ſo taking out the juice daily as it comes. Etmuller commends the juice thus gathered in the gout, and ſays, it does wonders in 9. Briony.

this diſorder: and Hartman (*o*) ſays, ℥vj. or vjjj. with one of ſp. vitriol. or ol. ſulph. per campan. will keep well, and given by a ſpoonful at a time cures the aſthma.

10. Spurge Cataputia, or ſpurge. Of this there are two ſorts, the major and minor, but both of them are of ſuch a corroſive, cauſtic nature, that it is impoſſible for any one to take the leaves alone, though in ſmall quantities; for they purge moſt violently both upwards and downwards. The ſeeds are the only part that can be uſed with ſafety, which being made with almonds into an emulſion, are the ſtrongeſt vomit that ought to be given in a Dropſy, according to Sir Theod. Mayerne, as we before obſerved.

R. Cataput. min. ʒj. aloes ſuccotrin. ʒiſs. balſam. tolut. ʒij. cum ſpir. vitriol. gtt. 15. vel 20. f. pillulæ; doſ. a gr. 12. ad. 25.

Theſe are the Pillulæ Hydropicæ in the Pharmacop. Pauperum, which will, according to Mr. Banyer, be found of admirable uſe in Dropſies, eſpecially in a robuſt conſtitution, where few things are to be found ſtrong enough to conquer the diſorder.

Beſides

(*o*) Pract. Chymiſtr. p. 58.

Besides the foregoing vegetables, some others are recommended by authors, which being now seldom or never called for, I shall only give you the trouble of reading their names, viz. soldanella, mezereum, seu laureola, of which there are three sorts, daphnoides, thymalæa, & chamælæa, tithymalus, seu esula major & minor, elleborus albus, &c.

Argentum vivum, quicksilver, or mercury. There are several preparations of this mineral, which are much commended by chemists in this disease. Such are mercurius vitæ, arcanum corallinum, turpethum minerale, hercules bovii, &c. but they are all of them exceeding rough medicines, and ought not therefore to be administered, except it be by a skilful hand, and with great caution; for they stimulate the bowels most powerfully, and occasion vomiting by convulsing the stomach. However there is one preparation of mercury, which is of a more gentle nature, which M. Lister calls a divine remedy, and than which there is not in (*p*) all the Materia Medica any thing more powerful in attenuating viscid sizy humours, removing obstructions of all kinds, abating swellings in

11. Mercury.

(*p*) See River. Op. Med. Obs. 3. Cent. 4.

in every part of the body, &c. This is mercurius dulcis, aquila alba, cæleſtis, or calomel; which was firſt introduced into practice by Sir Theod. Mayerne, and works by vomit, ſtool, urine, ſweat, or ſpittle, according to the doſe, age, conſtitution of the patient, &c. In all chronical diſorders, and in fevers likewiſe, this medicine does wonders, inſomuch that few of them are to be cured without ſome of this at the beginning, at leaſt not ſo quickly and ſafely. In the Dropſy (*q*), at the beginning eſpecially, ſome look upon it as a ſpecific; and I myſelf have often known it give relief, even beyond my expectation. But why do I go about to recommend a medicine ſo well known to every ſkilful practitioner; and which experience has taught us, may with ſafety be given to ſucking children, as well as to thoſe of the ſtrongeſt conſtitutions, with equal ſucceſs?

Calomel.

12. Silver. Luna, argentum, or ſilver. Dr. Bates, in his Pharmacopœia, recommends two or three preparations of this mineral in dropſical diſorders, viz. Luna potabilis, vitriolum, ſeu chryſtallum lunæ, & magiſterium lunæ. From the laſt of theſe the pillulæ lunares of Dr.

(*q*) See Doringius's Epiſtle to Fab. Hildanus, Op. 897.

Dr. Willis are compoſed. Theſe pills are mightily cried up by Mr. Boyle and Etmuller, as a great ſpecific in this diſeaſe. The recipe for theſe pills may be had in any of theſe three authors, ſo that I ſhall not tranſcribe it hither.

The lunar chryſtals being prepared with nitre, require great exactneſs in the operation. When made as they ſhould be, they will purge dropſical perſons without griping pains, and kill all ſorts of worms; but, for fear of their too cauſtic nature, they ſhould be uſed with caution, being apt to corrode and deſtroy the appetite, for which the rhob. juniperi is a certain cure (*r*).

Compound medicines.

From the foregoing ſimples, and thoſe that are hereafter to be mentioned under the ſeveral heads of diuretics, ſudorifics, &c. many pompous forms of medicines have been formerly, and may ſtill be compoſed, according to the ingenuity of the phyſician, the circumſtances of the patient, &c. The forms of ſome of thoſe, which have ſtood the teſt of experience, I ſhall here give my reader from ſeveral authors.

R. Aloes

(*r*) Boerhaav. Chem. vol. 2. Proceſs. 183.

Pills. R. Aloes opt. ʒiiſs. gutt. gamb. p̄p. ʒiſs. diagrid. ʒj. g. ammon. ʒiſs. tart. vitriolat. ʒſs. m. f. maſſ. pillular. doſ. a ℈ſs. ad ʒſs.

R. Aloes ſuccotr. ʒjjj. g. ammon. cum aceto ſcillit. depurat. ℥iſs. tart. vitriolat. ʒſs. f. ſ. a maſſ. pill. doſ. ad ʒj.

The latter of theſe are called pillulæ tartareæ, by Schroder, Bate, Quincy, the London and Edenburgh Diſpenſatories, and take their name from the laſt ingredient, of which there is only one grain in half a drachm, which is a common doſe. Schroder and others from him ſay, they were the preſcription of one Dr. Bont, who was phyſician to one of the princes of Orange; and that the Dutch had them ſo much in eſteem, that they thought it a ſin to make them publick. The ſame author ſays, they had two ſorts of them, one being thoſe here mentioned, and an extract of rhubarb was mixed with the other, on which account they had principally a regard to the liver; as alſo that one Peter de Spina made an addition of ℈j. of ſtyrax to this maſs, and ſo they were famous in his country. The quantity of the ſeveral ingredients continued the ſame in all authors where I have found them, till the

Edenburgh

Edenburgh Diſpenſatory reduced the g. ammon to one half, or ſix drachms.

R. Rhei. gutt. gamb. ſcammon reſin. 2. jalap. & calomel. āā ℥ſs. g. ammon. ſucc. irid. noſtr. ſolut. ʒiiij. tart. vitriol. ʒij. maſtick. ʒj. croc. ℈j. ſpir. terebinth. gtt. 40. cum ſ. q. ſyrup. e ſpin. cervin. f. maſſ. pillul. doſ. ab ʒſs. ad ʒj. fortioribus.

This is from Bate, and a better compoſition need not be made by any author.

R. Reſin. jalap. ʒij. tart. vitriol. ʒj. extract. rhubarb. ʒij. eſulæ ʒiſs. rad. galang. min. ʒj. conſ. flor. iridis noſtr. ℥jv. cum ſ. q. ſyrup. e floribus perſicar. f. elect. doſ. a ʒſs. ad ʒjſs. vel ʒij. Willis. Electuary.

R. Rhad. ebuli, irid. noſtr. āā ℥jſs. fol. ſoldan. & gratiol. āā mj. rad. aſari & cucum. aſinin. āā ℥ij. rad. galang. min. ʒvj. jalap. ſelect. ℥ſs. elater. ʒiij. cubeb. ʒij. inciſis & contuſ. affunde ſp. vin. tenuior. tartaris ℔iij. digerantur clauſo in furno arenæ per 2 dies. F. colatura clara, quæ per ſubſidentiam depurata detur a cochlear. 2. vel 3. cum vehiculo idoneo. Willis. Tincture.

R. Cort. ebuli, rad. irid. florent. āā ℥ij. cort. intern. alni nigr. baccifer. ſiccat. ℥iſs. rad. enulæ camp. & ſcill. āā ℥ſs. bacc. junip. ʒjjſs. rad. jalap. ℥ſs. helleb. nigr. ʒij. fol. Wine, 1.

ſennæ

ſennæ ℥ij. ſal. abſinth. ℈jv. vin. alb. ℔jv. digerantur frigide per aliquot dies, dein filtretur liquor.

2. R. Rad. irid. florent. ℥ij. enul. ſcill. āā ℥ſs. cort. ſambuc. & ebuli, āā ℥j. cort. winter. ʒij. ſennæ ℥ij. helleb. nigr. agaric. & jalap. āā ʒij. vin. alb. ℔jv. infund. frigide.

Theſe two wines are both in Dr. Fuller's Pharmac. Extemp. under the names of vina hydropica. The former, he ſays, is an excellent medicine for a Dropſy; and the latter he calls a moſt excellent one, having been tried a thouſand times with ſucceſs. The doſe of each is ℥jv. in a morning faſting.

Of Glyſters.

Experience has taught us, that glyſters are often ſerviceable in the cure of a Dropſy. They do not cauſe ſo much diſorder inus as medicines taken by the mouth. The belly never ſwells after the uſe of them, and they frequently bring away great quantities of water both by ſtool and urine (*s*). Eraſiſtratus ordered ſimple glyſters in this diſorder, or ſuch as did not contain any thing ſharp, or ſtimulating; but with what ſucceſs C. Aurelianus does not inform us.

A glyſ-

(*s*) Fabr. Hildanus ſays, above thirty pound of clear phlegm was brought from a lady in twenty days by glyſters only, Op. p. 988.

A glyſter, whoſe principal ingredient was the cortex ebuli, brought three quarts of water in twelve hours time, from a young gentleman who was ill of an aſthma, hectic, Aſcites and Anaſarca (*t*).

R. Urinæ ſani hominis, & vinum bibentis terebinth. venet. vitell. ovi. ſolut. ℥iſs. ſal. prunell. ʒjſs. f. enema.

This Dr. Willis approves of beſt, and orders it to be repeated every day, but others make uſe of more powerful ingredients.

R. Urinæ human. matutin. ℥vjjj. vin. benedict. ℥jjj. gutt. gamb. vin. hiſpan. ſolut. ʒj. terebinth. venet. vitell. ovi ſolut. ʒvi. ol. ſaſſafraſ. ℥ſs. m. f. enema.

This is the enema hydropicum in Bates, and is a preſcription of Sir Theod. Mayerne.

R. Flor. geniſt. & ſambuc. āā m. i. ſem. cymini, & carui āā ℥ſs. coq. in ſeri lactis ℥vjjj. colaturæ adde vini benedict. ℥jj. ol. colocynth. & ol. cymin. āā ℥ſs. vitell. ovi N°. i. m. f. enema. Biblioth. Anatom.

R. Pulp. colocynth. ʒj. infunde per noctem in vin. alb. ℥jjj. colaturæ adde decoct. inteſtin. nervecis ℔j. olei com. ℥jj. ſal. petræ fuſi ℥j. aceti fort. cochclear. ſ. m. f. enema. Riverius.

In

(*t*) S. Dwight de Hydrope.

In giving glyſters in this diſorder, Paulus Ægineta ſays, If the belly be looſe, we ought to make uſe of drying ingredients; but if the patient be coſtive, the medicines ſhould be briſk and active.

SECT. V. *Of Diuretics.*

Urine, how much

Our urine, according to Hippocrates, Dr. Keil, and others, ſhould daily equal, or at leaſt come near to, the quantity of liquids which we drink. If a man in this climate eats and drinks about four pounds and a half, or ſeventy-four ounces, in twenty-four hours, five ounces of this will paſs off by ſtool, according to the latter of theſe authors; thirty-one by inſenſible perſpiration, and about thirty-eight by urine. From hence it is apparent how neceſſary it muſt be, both in preventing and curing a Dropſy, in this nation, to keep open the urinary paſſages, ſince they are ſo abſolutely neceſſary in carrying off the ingeſta. I ſaid, in this nation, becauſe Sanctorius found that, in Italy, this evacuation was not near ſo great as Dr. Keil obſerved it, by the ſame method, to be in England; and perhaps even here it may not exactly be the ſame, in both parts of Great Britain, nor in two experimenters whoſe conſtitutions

it

it is great odds differ much from one another.

It was for a long time a queſtion in phyſic, whether there was not ſome other paſſage for the urine than that by the ureters into the bladder. Mr. Morin *(u)* affirms poſitively for reaſons there given, that the urine conſiſts of two ſorts: 1ſt, That which paſſes immediately through the pores of the coats of the ſtomach and bladder; and 2d, That which by the circulation of the blood goes into the ureters, and ſo to the bladder. This Mr. Morgan, in his Philoſoph. Principl. prop. 12. takes for a truth ſufficiently demonſtrated, and therefore divides the urine into two ſorts, which he calls the firſt and ſecond urines; but many perſons require better proof of this matter; ſince thoſe pores of the ſtomach and bladder are not to be diſcovered by the beſt glaſſes; ſince both of them hold water and air, when taken out of the body; and ſince the bladder and ſtomach are not contiguous, when in their natural ſituation; ſo that if we ſuppoſe a vapour to paſs through the pores of the ſtomach, it muſt firſt fall into the cavity of the abdomen, before it could get into the

Two ſorts.

R

(u) Philoſ. Tranſ. abr. vol. 4. part 2. p. 77.

the bladder, where it muſt be condenſed; nor could it paſs into the bladder, unleſs we ſuppoſe the pores of it to be larger than thoſe of the ſtomach (which does not yet appear.)

Glyſters come away by the bladder, of urine.

That there is ſometimes an immediate communication betwixt the lower part of the guts and the bladder, is a thing that will admit of no diſpute. A gentleman at Rome *(x)* had often glyſters of warm water given him, which always came entirely away by the bladder, not ſo much as a drop coming by the anus. Benevenius *(y)* tells us, that a boy of twelve years of age had a ſuppreſſion of urine for ſeven days, and that it came away at length by the anus, and ſo he recovered. A man of fifty, much ſubject to the ſtone, in a fit of it had a glyſter given him, of broth and oil of ſweet almonds, which ſtayed with him ſix hours, and then came all away by urine, the oil ſwimming on the top of it *(z)*. The ſame happened lately to a young lady, who had ſuch a glyſter given her for the cholic.

Fabr.

(x) Bagliv. Med. Prax. p. 133. *(y)* De Abdit. Morbor. Cauſis, cap. 7. *(z)* Bagliv. Opuſcul. 91.

Fabr. Hildanus *(a)* gives a hiſtory of a poor woman, who by a fall from a tree bruiſed the pudenda, and, for want of proper aſſiſtance, had both the meatus urinarius, & labia vulvæ cloſed up; ſo that all her urine was diſcharged by the anus, during the remainder of her life, which was many years: and alſo of an old man, who having a ſcirrhus about the ſphincter veſicæ, made water conſtantly by the anus.

However this be, it is certain there are no medicines, that will immediately force the urine, though ſome, as aſparagus and turpentine, will in a very ſhort ſpace of time, give a ſcent to it. As then diuretics mix with and undergo the circulation of the blood, they muſt act upon all the other parts of the body, as well as the urinary paſſages; and conſequently, muſt be very uncertain in producing the effect, for which they were given. They alſo, in weak and worn-out conſtitutions, are apt to work immediately upon the firſt paſſages, without going any farther. I have known a few grains of ſal ſuccini, millepedes, ſal prunell. &c. given to a dropſical perſon, which have paſſed off by ſtool, and have not at all

(*a*) Obſ. 47. Cent. 5.

affected the urine. Could a remedy be found out, which would immediately, and with certainty, open the obſtructed ureters, not only the Dropſy, but many other diſeaſes, which daily deſtroy mankind, might eaſily be ſubdued, which now-a-days hardly admit of any cure.

Dieuretics the only hydragogues.

Etmuller *(b)* aſſures us, that after univerſals, diuretics are the only medicines to be inſiſted upon in the cure of a Dropſy, they being the true hydragogues; but that, by an unſeaſonable uſe of them, the flux of the urine will rather be hindered than promoted. It is a common thing in authors to cry up this or that kind of diuretic, as the beſt in the world, according as it happens to fall in with their hypotheſis, or particular way of thinking. But whoever deſigns to adminiſter theſe ſorts of medicines, ſhould not be influenced by the bare aſſertion of this or that man, let his name and reputation be ever ſo great. The patients conſtitution and way of living, the cauſe of the diſorder, and the like, are the only true ſtars for the phyſican to ſteer his courſe by.

Of different ſorts.

"For those who have indulged a method of "hot intemperance, till they have over-"raiſed

(*b*) Op. Med. vol. 1. p. 299.

" raiſed and heated the blood, and contracted " a flatulent digeſtion, the beſt diuretics are " ſpring-water, green-tea, milk and water, " and emulſions of all kinds. In cold, low, " and languid conſtitutions, where the ſe- " cretion is leſſened from a diminiſhed velo- " city of the blood, infuſions of horſe-radiſh, " muſtard, millepedes, balſam of capivi, and " ſuch warm ſtimulating diuretics, mixed " with diluters, will be moſt effectual. When " the urinary glands are very much ſtuffed " and loaded with gravel, or any ſabulous " matter, which cannot be thrown off by " the common diuretics, recourſe muſt be " had to cantharides. If the urinary glands " and paſſages are ſcorbutically affected, " dilacerated and corroded, the curative " intentions cannot be obtained without " mercurials" (*c*).

Common ſalt, or that made of ſea-water by the ſun's exhalation, is recommended by Dioſcorides for the cure of dropſical ſwellings; who ſays, it is reſtringent, obſterſive and cathartic, than which no medicine can have better qualities for curing this diſorder. Though ſalt, applied to the fibres of dead animals, 1. Salt.

(*c*) Morgan's Philoſ. Princ. p. 438. Willis de Aſcit. p. 278, &c.

animals, makes them hard of digeſtion, loads us with an impure chyle, and ſo lays a foundation for ſcorbutic diſorders; yet when ſufficiently diluted with water, whey, &c. it is of a very different nature, and is very proper to waſh away ſuch kind of obſtructions.

There are ſeveral preparations of it, which have done great ſervice to mankind, in this, and other obſtinate diſorders. By diſtilling it with bricks, fuller's-earth, tobacco-pipes, &c. is produced the common ſpirit of ſalt. This is a very powerful diuretic and deobſtruent medicine, abates heat and thirſt exceedingly; and may be given to ſixty or ſeventy drops at a time. From one part of this, and three of ſpirits of wine, is prepared by diſtillation the ſpiritus ſalis dulcis, of the Edinburgh Diſpenſatory. Mr. Geoffroy ſays, that fifteen or twenty drops of this dulcified ſpirit, taken every morning on an empty ſtomach, in ſix ounces of a decoction of juniper-berries, is an excellent remedy for a Dropſy. The common ſpirit may eaſily be brought into a ſolid maſs, with ſalt of wormwood, and then it is called ſpiritus ſalis coagulatus. This is a contrivance of A. Minſincth; and indeed the medicine is much mended by this addition.

Spirit of ſalt.

Sp. ſalis dulcis.

Coagulated.

It

It may be given to fifteen grains, in any proper vehicle; and is a great deobſtruent, a powerful diuretic, and conſequently a good medicine; or rather, if we may believe our author, a ſpecific in the Dropſy. Quercetan has another ſpir. ſalis coagulatus, without ſalt of wormwood, which is good for the ſame purpoſes.

Nitre is a kind of ſalt, which ariſes out of the earth, in many places; whence it was called ſal petræ, and by us, ſalt petre. The antients made great uſe of it, for the relief of the ſick, and preſerving the bodies of the dead. They alſo uſed it in cookery; to clean their cloaths; and had it from ſeveral places, as Armenia, Lydia, Buna, Chalaſtra, Thrace and Egypt: they likewiſe had ſeveral names for it, νίτρον halmariga, αφρὸς νίτρου, or αφρόνιτρον, ſpuma nitri, capiſtrum, & operithantum nitri. Bellonius, Geoffroy, and others, are of opinion, that the antient nitre was not the ſame as ours; but Caſimire, Cardan, Clark, and others, are of a different one. Nitre has all the properties of ſalt, and ſome more. Sir Theod. Mayerne prefers it to all other dieuretics in the cure of a Dropſy, becauſe it cools and allays thirſt. Dr. Rawley, in his life of Francis Lord Verulam, tells us, he 2. Nitre,

took three grains of it every morning in warm broth, for the laſt thirty years of his life, which was thought to contribute much to his health. Some phyſicians cry up nitre, as a ſpecific in Dropſies; the Monks mix it with a fourth part of crocus martis, and give it to ſixteen grains, four times a day; they alſo diſſolve a drachm in a quart of the patient's common drink, to be drank in a day's time; and Mr. Geoffroy ſays, this method has often ſucceeded.

We have three or four preparations of nitre, which all partake of the cooling, deobſtruent nature, of that excellent ſimple. The London Diſpenſatory orders the lapis or ſal prunellæ to be made of one pound of pure nitre, and two ounces of the flowers of brimſtone; that of Edinburgh puts but half an ounce of the latter, to a pound of the former; and Dr. Boerhaave, proc. 133, ſtill leſſens the quantity; for to ℥jv. of nitre, he puts only ℈j. with good reaſon.

Sal prunellæ.

The ſal polychreſtum, of the Scotch Diſpenſatory, is made from equal quantities of the two foregoing ſimples; and the ſpiritus nitri dulcis, is prepared after the ſame manner as the ſpiritus ſalis dulcis. That excellent chemiſt,

Sal polychreſtum.

Sp. nitri dulcis.

chemiſt, Joh. Rudolph. Glauber, found out the art of making both.

The pulvis pyrius, or gunpowder, is made of nitre, ſulphur and charcoal. This is an excellent medicine in many caſes, it being of a very powerful deobſtruent and diuretic nature. In contuſions after bleeding, it is of far greater ſervice than many which are made uſe of upon that occaſion. It is now coming much into practice, and has frequently been given with ſucceſs in Dropſies, to half an ounce for a doſe, twice a day, in white wine, or the infuſ. amar. by ſome of the beſt phyſicians of our nation.

According to Etmuller, the beſt diuretics in this diſorder are volatile ſalts, ſuch as are had from urine, worms, toads, &c. Sydenham and Willis are entirely for lixivious ſalts; nor does it matter from what ſort of vegetables they are prepared. Broom and wormwood are two very common plants with us, and for that reaſon, I believe, they are moſt commonly uſed in this diſtemper.

3. Volatile ſalts.

4. Lixivious ſalts.

Theſe lixivious or alkaline ſalts are produced from moſt kind of vegetables, by cryſtalization after calcination. Nothing of an alkaline nature is to be obtained from any of them, any other way than by fire. This, accord-

All alike.

according to its different degrees, makes ſome of thoſe ſalts more pungent, active, and fiery than others; which is all the ſenſible difference to be obſerved in them. The ſame thing happens to ſalt of tartar, as to thoſe produced from different plants; for this will be more or leſs alkaline, according to the intenſeneſs of the fire which produced it. Hence, I think, we may ſafely conclude, that all theſe alkaline ſalts are of the ſame nature, and retain nothing of the qualities of their ſeveral plants. Fran. Redi *(d)* ſays, that two drachms and a half of any of theſe kinds of ſalts, will purge as gently as lenitive electuary; and that he had tried the experiment a hundred times, with ſalts made of rhubarb, ſenna, agaric, jalap, mechoacan, &c. plantain, cyprus, lentiſcus, cork, mandragora, vipers, &c. that he could never find any difference in any of them, except in the figure of them, which, however does not alter their purging quality. Hence, according to the doctrine laid down page 136, ſince ſo ſmall a quantity of them will purge, a fifth or ſixth part muſt prove diuretic, or otherwiſe deobſtruent; and experience ſhews us, they are ſo in fevers, jaundice,

(*d*) Exper. Natural. p. 231.

jaundice, Dropſy, aſtthma, and all chronical as well as acute diſorders. Thoſe however, that require farther ſatisfaction in this point, may find it as in the margin (*e*).

The chemiſts now-a-days make ſalt of tartar, with a ſmall difference of management, ſerve for the lixivious ſalts of all plants; and indeed, I believe, it will do as well as any other in all caſes, and in ſome I have made the experiment. I ſincerely wiſh, they endeavoured to put no greater cheat than this upon mankind; but alas! at preſent, we find but too many complaints of this nature in medicines of the greateſt efficacy. Salt of tartar.

There is kept in the ſhops a tincture, made of ſalt of tartar, and ſpirits of wine, which is a great deobſtruent, acts powerfully by urine, will encourage ſweats; and is therefore good, not only in a Dropſy, but in the jaundice, green-ſickneſs, rheumatiſm, ſcurvy, and all other ſuch kinds of illneſs, which ariſe from obſtructions of the glands and lymphatics. It may ſafely be taken to one hundred drops or more at a time in white wine, or any other proper vehicle. Its tincture.

(*e*) Philoſ. Tranſ. abr. vol. 3. p. 331. Boerhaave's Chem. vol. 2. Quincy's Pharmac. p. 321, &c.

vehicle. There are ſeveral other preparations of tartar, which are powerful deobſtruents, remove obſtructions, allay heat and thirſt, provoke urine, &c. ſuch are tartarus vitriolatus neutralis, tartarus regeneratus, ſeu terra foliata tartari, ſalt of tartar with acetum diſtillatum, &c.

Draught. R. Aq. tænic. d. ℥iij. tinct. ſal. tart. ex ſp. vin. ʒij. vel ʒiij. ſyrup. e. 5. rad. aper. ℥j. m. f. hauſt.

Boerhaave ſays, that if this tincture be given thus, every morning faſting, for three or four days together, and repeated again at proper diſtances of time, it will do more than almoſt any other medicine in the foregoing diſorders.

Wine, 1. R. Ciner. geniſt. ℔j. ſol. abſynth. vulg. pug. 1 vel 2 vin. Rhen. ℔jv. infund. frigid. liquor. per filtrat. colat. ℥jv. dentur mane, hor. 5ª. pomerid. & ſero uſque dum tumor evanuerit. Sydenham.

With this remedy only, this author tells us, he had ſeen many perſons cured of Dropſies, who could not bear purging, and ſo were looked on as paſt remedy.

2. R. Vin. alb. ℔jj. ſal. abſynth. ʒij. m. doſ. ℥jv. vel ℥vj. bis in die. This is Fuller's vinum diureticum, which is made with little trouble, and

and will anſwer all the intentions of the foregoing.

R. Ciner. geniſt. abſynth. vel ſarment. vitis ad abbed. calcinat. & eribrat. ℥jv. ponant. in lagen. vitrea. cum vin. abb. ℔ij. digerant. clauſe & calide per 3 vel 4 hor. dein colet. doſ. ℥vj. vel ℥vjjj. bis in die. ʒ.

This medicine, Dr. Willis ſays, has brought away a gallon and a half of urine in a day and a night, and that the patient has recovered in a ſhort time, to a miracle.

Dr. Fuller has two medicines, the lixivium de calce, and the lixivium hydropicum; and Dr. Bates one, the vinum lixivioſum; all which are founded upon the ſame principles, and are admirably good medicines in this diſorder. The method of taking them is the ſame as the foregoing, in a great meaſure, and may be ſeen in the authors themſelves.

Fabr. Hildanus uſed to give a ſcruple or two of the fæcul. rad. ari, & crem. or ſal. tart. together, in dropſical diſorders, with ſucceſs. This medicine may be taken, either in broth or white wine, is not ungrateful to the palate, and is very powerful in removing obſtructions. Bolus.

An

5. Green-tea.

An infusion of green-tea in Renish wine, is not only a good diuretic and stomachic, but it increases the celerity of the blood's motion, and at the same time abates the thirst, as we before observed *(f)*; whereas all other bitters are apt to increase it.

6. Black hellebore.

Black hellebore, when given in a moderate dose, is so far from being a violent purger, that it very often does not purge at all; and though it sometimes occasions vomiting, yet frequently it does not so much as offend the stomach. Avicenna says, it provokes urine and the menses. "The latter of these "qualities is sufficiently known; and, in "Dropsies, I have seen more wonderful "effects from it, than from any other diu-"retic; but it will not always equally work "wonders. This difference in its operation "arises, I suppose, from the nature of the "distemper, a very dangerous one in itself, "(sometimes absolutely incurable) *(g)*, and "various as to admitting this or that sort of "cure. For there are cases of this kind, (as "may be seen in the histories above,) which "seem in every respect the same, but will not "yield to the same method of cure; though "no reason perhaps (except the part, where "it

(f) P. 134. *(g)* P. 65.

" it takes its beginning, which ſometimes is " not to be diſcovered till the patient dies) " can be given why they ſhould not (*b*)."

There are ſeveral preparations of this moſt excellent plant to be met with in our diſpenſatories. There is apozema helleboratum, tinctura melampodii, (which is left out of Dr. Fuller's edition of this author,) and vinum helleboratum in Dr. Bates's Pharmacop. There is a tinctura hellebori nigri, in Quincy, made with white wine; the tinctura emmenagoga in the Pharmac. Pauper. made with rectified ſpirits of wine; and another tinctura helleb. nigr. in the Edinburgh Diſpenſatory, made from Spaniſh wine. Dr. Willis has alſo an extractum hellebori nigri. All theſe are admirable medicines in a ſuppreſſion of the menſes, Dropſies, melancholy, &c. The ways of preparing them, and the method of uſing them, may be ſeen in the authors here quoted, but this plant anſwers our expectation no how better, than in an infuſion with other medicines according to the intention of the phyſician.

Napellus ſometimes miſtaken for it.

Fabr. Hildanus, in the general preface to his works, tells us of a woman that was killed by taking half a ſcruple of the extract of

(*b*) Dr. Friend's Hiſt. of Phyſ. vol. 2. p. 105.

of black hellebore, which he thinks was owing to a miſtake of the apothecary, who made uſe of the root of napellus inſtead of hellebore, which is a deadly poiſon, very like hellebore to the eye, and therefore ought carefully to be diſtinguiſhed from it; for hellebore, he ſays, is a ſafe medicine; that he himſelf had taken it with ſucceſs for an ague; and had cured an epilepſy by it. A good caution this, both for phyſicians and apothecaries, eſpecially the latter; ſince the making up of all medicines is now entruſted to their care, without the inſpection of the phyſician.

Matthiolus and Hildanus ſay, this root is ſo very powerful in the cure of quartan agues, that they do not remember one perſon in this caſe who did not take it with ſucceſs.

Moſt other purging medicines, as well as hellebore, will now and then occaſion large fluxes of urine. A perſon, who was ill of a fever, had an ounce of caſſia given him by his phyſician; but this not working with him, it was repeated till he had taken two ounces and a half. He then fell into a violent flux of urine, which continued upon him three days, and was ſo ſharp, that every time he made water, he thought a red-

7. Caſſia.

a red-hot iron had been run up the urethra (*i*).

Dr. Bates from Marcellus Donatus (*k*) ſays, calcined toads, or what he calls pulvis æthiopicus, given to a drachm at a time, has ſometimes been of admirable ſervice in a Dropſy; but though I have often made uſe of it, I never was ſo happy as to find any good effect from it. 8. Toads.

Cantharides are one of the moſt powerful ſtimulating diuretics in the world. Hippocrates gave them inwardly three at a time, the head, feet, and wings being plucked off, and mixed with three glaſſes of water. From his time, till Groenvelt wrote about the way of giving them inwardly, few phyſicians made uſe of them, except in raiſing of bliſters. Theſe act ſo violently upon the urinary paſſages, as often to bring away blood, when only applied to the ſkin; ſo that great care ought to be uſed when we give them inwardly. Mr. Morgan aſſures us, that cantharides given in ſmall quantities, not exceeding five grains, and well diluted with any thin, ſoft, milky liquor, is beyond 9. Cantharides.

(*i*) Fabr. Hild. de Lithotom. Veſic. p. 759.

(*k*) De Mirab. Hiſt. Med. p. 696.

all dispute, the most powerful and effectual diuretic in the world.

Pills. R. Test. ovor. calcinat. ʒss. camphor. ℈j. cantharid. ℈ss. terebinth. Ven. q. s. f. pill. N°. 9. deglutiantur 3 tertiis horis. These are the second pillulæ diureticæ in Fuller's Pharmacopœia, which may safely be given, and are a great and powerful diuretic.

Tincture. The tincture of cantharides in our London Dispensatory is a good medicine, may safely be given in this distemper, and has cured persons of a Dropsy, when other medicines have failed, and the case been given over by good physicians.

In the year 1735, I cured a poor man of an Ascites, who had a tumour at the pit of his stomach, his navel started, and a great suppression of urine, after he had to no purpose been frequently purged with calomel, gutt. gamb. jalap, &c. by only giving him some of the tinct. cantharid. pharmacop. Edensis, twice a day, in a dish of camomile-tea. This tincture is more diuretic than that of the London Dispensatory.

A gentlewoman fifty-four years of age, having been long troubled with the stone, fell into a Dropsy; which being cured, she was seized with a suppression of urine for

four

four days. On the fifth day, she took five cantharides, or gr. 4ss with as much camphire, and some conserve to make it into pills. This medicine having no effect, it was repeated the next morning. About noon, she began to make water freely, and in forty-eight hours discharged as much as could have been expected from her in the whole time of her obstruction. The operation was as mild as if she had taken only two doses of sal prunellæ (*l*). The same effect I have found from a like quantity of each.

It is well known, that soap is nothing else but lixivious salts, brought to a consistency by boiling oil along with them, and sometimes an addition of quick-lime. By this means, there is formed a kind of universal medicine, which may be given to an ounce in twenty-four hours. It is when rightly prepared, according to Boerhaave, one of the most pure and excellent medicines we possess; the numerous virtues whereof may ease the physician, who is acquainted with them, of a great load of simples of much less efficacy. It is almost an universal deobstruent, and may not only 10. Soap.

(*l*) Philos. Transf. abr. vol. 4. part 2. p. 216.

be given in a Dropſy, but in almoſt all other diſorders.

The elixir ſapientum, Helmont's ſoap, the ſapo tartari, or philoſophorum of Starkey, and corrector of Mr. Matthew, are nothing elſe but alkalious ſalts incorporated with oil, but are all great deobſtruents, provoke ſweat and urine, and ſo carry off the morbific matter of the moſt inveterate chronical diſorders. The ſoaps of Venice, Caſtile, and that made in our own country, daily give relief in caſes of gravel, ſtone, jaundice, Dropſy, &c. as is well known to every practitioner.

Pills. R. Sapon. Ven. ʒij. ol. aniſi gtt. 8. contudendo f. pill. N°. 24 pro 4 doſibus. Theſe are the pill. ſmegmaticæ of Dr. Fuller, and the pill. diureticæ of the Pharmacop. Pauperum.

Draught. R. Sapon. Ven. raſ. a ℈jj. ad ℈jv. coq. in lact. ℥jv. ad ℥vj. adde ſacch. alb. ʒiij. cola; detur mane & hor. 4ª. pomerid. This is the hauſt. ſapon. of Dr. Fuller, which he takes from Barbette.

11. Woodlice. Millepedes, or woodlice, are a medicine ſo well known, that people entirely ignorant of phyſic conſtantly take them for jaundice, ſcrophulous tumours, inflammations of the eyes, &c. They are a moſt admirable medicine,

dicine, but rather act as an alterative than a diuretic, in many conſtitutions. No preparation of them can poſſibly mend them, being beſt taken whole; but for ſuch as cannot ſwallow them after this manner, the expreſſion in Dr. Fuller's Pharmac. and the vinum millepedatum in the Edinburgh Diſpenſatory, are very well contrived.

℞. Milleped. viv. & ſacch. alb. āā ℥jjj. ſimul contuſis affundatur vin. alb. ℔j. probe miſceantur in mortario, & liquor expreſſione coletur. Doſis ℥jjj. ſingulis auroris vel ſæpius. Expreſſion

Sulphur contains in itſelf an acid, which acts vigorouſly upon the fluids of a human body. All the preparations of it partake of this quality more or leſs, and by this means attenuate viſcid and ſizy humours, and fit them to paſs off by every gland, but eſpecially the kidneys. The gas ſulphuris in our College Diſpenſatory is a medicine very agreeable to the ſtomach, is a mild and gentle but very certain diuretic; and as it contains this acid ſpirit in a large quantity of water, but few medicines will exceed it in allaying thirſt, and carrying off by urine the ſuperfluous lymph of dropſical perſons. It may very ſafely be given to half an ounce at a time or more, two or three times a day. 12. Sulphur. Its Gas.

This medicine thus taken in a bitter tincture, and now and then with Piermont waters and ſome old hock, reſtored a gentleman in a ſhort time, who was thought to have a Dropſy in his breaſt, accompanied with a dyſpnæa, ſwelled legs, thighs and belly, and alſo with a jaundice. He was given over by his phyſicians in the country, but happily reſtored by this gentle method, by my very good friend Dr. Burton, who is now, as he well deſerves, at the head of his profeſſion. He made uſe of no other medicines, except ſome oxymel ſcilliticum at a night.

13. Copper. The antients, as I have before obſerved, made uſe of ſeveral preparations from copper in the cure of this diſtemper, which for the moſt part were ſo rough in their operation, that few or none of them have been called for of late years. Profeſſor Boerhaave (*m*) however diſſolves copper in ſpirits of ſal. ammoniac, and ſo makes a tincture of it by motion only. This he gave in mead to a dropſical patient with ſucceſs. He began with three drops, and doubled them every morning for four days; then he continued this doſe of twenty-four drops a day for ſome

Tincture.

(*m*) Proceſſ. 192.

ſome time, till the urine ran from him as out of a ſyphon; and afterwards, by a good reſtorative drying diet, he was perfectly reſtored to health. Upon this ſucceſs, as Dr. Sydenham had done before him with ſyrup of buckthorn, he became proud of having found out a certain cure for a Dropſy; but, like that honeſt man, he fairly owns when he came to try it again it would not anſwer his expectation; whereupon he very juſtly concludes, that there are ſeveral kinds of Dropſies, to be cured by as many different methods, and that ſome of them are abſolutely incurable.

Ants eggs boiled in butter-milk are a great diuretic, ſays Sir Theod. Mayerne. 14. Ants eggs.

R. Ovor. formicar. cochl. 1, coq. in lacte ebutyrato, exprime & edulcor. pauco ſaccharo. Detur mane ſuperambulando, hor. 4. ante prandium per octiduum.

This medicine Sir Theod. gave to a woman in a Dropſy, which brought a great deal of wind from her, gave her ſeveral motions at firſt to make water, and at laſt brought from her ſuch quantities of urine, that ſhe often made a whole chamber-pot full at a time.

15. Turpentine.

Fonſeca commends turpentine waſhed in barley-water, and given to ʒſs. twice a week for a Dropſy. Cloſſeus formed pills of terebinth and vitriol alb. āā p : æ. by incorporating them together, which may be given to ʒjj. for a doſe, and are very diuretic. The ætherial oil of turpentine is a moſt powerful diuretic. Dr. Cheney will have it to be a ſpecific in the ſciatica; but I have given it in this caſe without ſucceſs. One ſingle drop of it, being taken with any other liquid, will give a ſcent to the urine in a quarter of an hour. A young man by miſtake took a draught of this oil to quench his thirſt. It threw him into a diabetes and a violent profluvium ſeminis, which left ſo great a weakneſs in thoſe parts, that he felt it all his life after (*n*). Another, from an over doſe of it fell into a diabetes, and died hydropical in twenty-five days (*o*); and a third, from two drachms of it had a ſtrangury, bloody urine, fever, &c. but was cured by a warm bath and Dr. Fuller's emulſio arabica (*p*).

Ætherial oil.

If a quantity of turpentine be put into a clean cloſe veſſel, and ſo diſſolved and raiſed by

(*n*) Boerhaave's Method of Chem. per Shaw, p. 102.
(*o*) Obſ. 52. Cent. 5. (*p*) Med. Eſſays Edinb. vol. 2. p. 48.

by fire, there will be produced a clear liquor, that will readily mix with water, is of a very acid taſte, will as readily as water extinguiſh fire, and is perhaps the moſt noble diuretic in the world (*q*).

Harman in a ſuppreſſion of urine preſcribes it thus: R. Vin. canar. ℥jv. ſucc. limon. ℥j. ſp. terebinth. ʒj. m. pro hauſt. Draught.

Fabr. Hildanus (*r*), tells us of a nobleman, who being perſuaded by an emperic, to take two ounces of ſp. terebinth in white wine, for a pain in his loins and about the os ſacrum, was immediately ſeized with a violent pain in the kidneys, and in five hours time had pure blood, and ſometimes blood and urine mixed, begin to come from him by drops, with violent pain. Theſe ſymptoms continued ſome time, though medicines of all kinds were not wanting; and the pain of his loins was not removed till many years after. Thus, ſays our author, a ſafe medicine may become poiſon by an error in the quantity of the doſe.

The juice of chærefolium, or chervil, is one of the greateſt diuretics, if given to two ounces in a morning with white wine for many 16. Chervil.

(*q*) Ibidem. (*r*) Boerhaave's Chemia, vol. 1. p. 294. Fabr. Hild. de Hydra, cap. 8.

Onions, leeks, and garlick, &c.

many days together. The juice of onions, both common, and ſea-onions called ſquills, leeks and garlic, taken after the ſame manner, will ſometimes do admirable ſervice. The juice of ſeveral other herbs, as brook-lime, plantain, &c. depurated, and taken to ℥jjj. twice a day in white wine, provoke urine, and inſenſibly conſume the water of a Dropſy, ſays Sir Theod. Mayrne from Johannes Anglus. This author, who is alſo called John de Gadeſden, lived in Edward the Third's time, about the beginning of the fourteenth century; but as his character is already drawn up by Dr. Friend (*s*), I ſhall only give you his method of preparing and giving theſe juices, ſince he is the firſt who mentions this method of cure. In a Dropſy from a hot cauſe, ſays he, take the juice of plantain and liverwort, and fill an earthen-pot with them almoſt to the top; cover it with a thin ſkin or bladder, and tye it cloſe; then place it in an oven after the bread is drawn, laying the aſhes all round and on the top of it. When it has been boiled thus, let the ſtrained liquor be ſweetened with ſugar, and ſome of it be drank night and morning. He ſays, he cured a phyſician of

(*s*) Hiſt. of Phyſ. vol. 2. p. 277.

of a Dropſy, by making him drink nothing elſe but this juice with ſome ſpikenard for three days together, and holding ſome ſugar-candy in his mouth (*t*). Since his time, Dr. Willis gave theſe juices after the following manner.

R. Folior. plantag. virent. m. jv. hepaticæ, becabungæ āā m. jj. ſimul contuſis affunde aq. raphan. comp. ℔ſ. f. expreſſio fortis. Doſ. ℥jjj. ter in die.

R. Rad. fœnic. herb. apii ruſtic. eupator. petroſelin. Macedon. & hepaticæ āā m. i, pſeudo-maſcul. m. jj. vin. alb. ℔. 8. f. infuſ. calid. in vaſe bene clauſo donec evaporentur ℔jjj. colatura ſervetur pro uſu.

One Peter Lowe, a Scotſman, publiſhed a treatiſe of Surgery, A.D. 1612, wherein he ſays, that during the ſeige of Paris he cured many perſons of the Dropſy by the foregoing medicine, which he procured of a Turk that belonged to the Spaniſh general: he ſays, this wine ſhould be drank as common drink; and that after three days a flux of urine will come on, which will continue fifteen or twenty days, in which time the patient will recover. During this courſe, the

(*t*) Roſa Anglica, p. 33, 2.

the party muſt be kept warm, and eat only meat that is roaſted and of eaſy digeſtion.

There are ſeveral other Engliſh plants mentioned by authors, which are ſaid to provoke urine; but none of them come up to thoſe already mentioned. Their names however are aſparagus, petroſelinum, fæniculus duleis, ſeſcla, daucus, radix vincotoxici, pimpinellæ, valerianæ, ſemen hyperici, alkekengi; the ingredients for the ſyrup of marſhmallows, which is better in decoction than in a ſyrup, as Quincy well obſerves, &c.

17. Pareira brava.

At the beginning of this century (*u*), the Portugueſe imported from Braſil a root, to which they gave the name of pareira brava or wild vine: it is pretty large, not much unlike to that of white briony; and is of a bitter aromatic taſte. It is a great vulnerary and diuretic, and if we may believe Helvetius is not leſs a ſpecific in diſorders of the kidneys and bladder, than ipecacuanna is in dyſenteries, or the cort. Peruv. in intermitting fevers. In all manner of obſtructions of the urine, whether from ſand, gravel, or ulcers, this medicine does wonders. In violent nephritic

(*u*) The Spaniſh ambaſſador firſt brought it into France, 1706. Dictionair. de Commerce.

nephritic pains, and at the beginning of Dropſies, it is very often of admirable ſervice, if taken only in a ſimple infuſion (*x*) of ſpring-water; but the ſame author tells us, that he had found by long practice, that it is not ſo efficacious in confirmed Dropſies as might be wiſhed. For this reaſon he contrived a balſam of it, which is highly commended by him for a moſt powerful diuretic; which character, it is true, it well deſerves: but I am apt to think the great virtue of it is more owing to the other ingredients, than to the pareira brava. As this root is not very common to be met with in England, I ſhall not at preſent trouble my reader with any farther account of it, though ſome perſons here of late have much commended it for the cure of this diſtemper.

18. Partridge-berries.

In America they have a plant called partridge-berries, a decoction of whoſe leaves, being drank as tea ſeveral mornings together, will diſcharge vaſt quantities of urine, ſo long as the Dropſy laſts; and then may be drank

(*x*) See his method of infuſing in Philoſ. Tranſ. abridg. vol. 5. p. 303. viz. take eleven grains of it powdered, infuſe in a pewter tea-pot all night in warm aſhes, boil in the morning, and drink three, four, or five diſhes of this infuſion.

drank without increasing the flux of it, according to Dr. Mather *(y)*.

19. Cyanus.

The cyanus, blue-bottle, or corn-flower, is well known to be serviceable in sore eyes, the jaundice, &c. Its sharp and bitter taste sufficiently declare its diuretic quality; whence Fred. Hoffman, in his notes upon Schroder, affirms, that a decoction of it carried off a Dropsy at the beginning by urine. In 1694 and 1695, two men were cured by a decoction of it in an Ascites, with swellings in the feet and scrotum, so that they could hardly lie down in bed (z).

SECT. VI. *Of Diaphoretics.*

By diaphoretics.

The pores of the skin, it is certain from Malphigi, are prodigious numerous. By them we daily lose insensibly a great quantity of what we eat and drink. These are liable to be closed upon many accidents; and when they are so, a foundation is often laid for fits of illness of some kind or other, which in a very short time must be sure to follow. Dr. Cheney (*a*) gives an algebraic equation to find what quantity of matter will

(*y*) Philos. Trans. abr. vol. 5. p. 312. (z) Manget, Biblioth. Script. Medicor. p. 90. tom. 1. (*a*) New Theory of Fevers, p. 160.

will be added to the blood and juices, by a retention of the uſual evacuations for any certain time. Suppoſe we uſually eat and drink eight pound in a day, and that inſtead thereof our appetite declining upon perſpiration being ſtopped, we only eat and drink the ſecond day after, ſix pound, the third four, the fourth two, and the fifth nothing; then in this time twelve and a half pound will be added to the maſs of blood and juices. A large quantity this, and ſufficient to account for all the diſorders to which our bodies are ſubject.

Many methods have been propoſed, and many medicines thought of, to open theſe obſtructed outlets; and happy would it be for us, could this always be effected. Fevers would then be cured with more certainty than they are, and many other diſorders might be removed, which may now juſtly enough be called the opprobria medicinæ. In an univerſal Dropſy, the pores of the ſkin muſt be obſtructed for ſome time, before any great ſwelling can be formed; the juices muſt be rendered viſcid, and the fibres muſt have loſt their elaſticity. It is with the utmoſt difficulty therefore, that dropſical perſons are made to ſweat; and indeed,

indeed, as Aretæus well obſerves, theſe ſort of people will not ſometimes be made to ſweat even by bathing.

In Dropſies of any particular part, diaphoretic medicines can do but little; nay Dr. Willis aſſures us, that they often do much harm in an Aſcites. The Anaſarca is the only kind of Dropſy where diaphoretic medicines can be ſuppoſed to be ſerviceable. Here indeed relief, eſpecially at the beginning of the diſorder, may be expected from almoſt any kind of ſudorific. Dr. Pitcairn recommends above all others a decoction of ſarſa, guaiacum, all acrid antiſcorbutics, and ſome aromatics, which diſſolve the viſcidities of the ſerum. The common diaphoretic medicines now in uſe may be met with in any Diſpenſatory, of which, as not being peculiar to this diſtemper, I ſhall ſay nothing more at preſent. But here I muſt not forget to mention an obſervation of S. Dwight in his Treatiſe De Hydrope. He there ſays, that almoſt all cathartics and emetics of the vegetable kingdom may be made diaphoretics, by burning them in an iron-ladle, till their rougher qualities are deſtroyed; and that the ſtronger purgers they were before calcination, the more powerful diaphoretics

they

they will be after. He chiefly recommends euphorbium, gamboge, coloquintida, and black hellebore to be used thus, and says, the dose of them may be half a drachm or somewhat less. This method I have sometimes tried, and find that dropsical persons by sweating after this manner become prodigiously weak; so that they should not be made to sweat oftener than once in five or six days, or as they recover their strength.

R. Milii excort. ℥ij. coq. in aq. font. ℔ij. donec ℥jjj. vel ℥jv. tantum supersint. Colaturæ misceantur cum æquali vini albi generosi portione, & detur calide. Copiosissime sudabit æger, si texeris diligenter. This medicine is called the syrup of St. Ambrose. Horatius Reserus, as we are informed by Scholtzius, cured many children and some women of the Anasarca by this medicine only (*b*); and in the Medical (*c*) Essays of Edinburgh we are assured, that this medicine will cure a dysentery with as great certainty, as the simarouba. St. Ambrose's syrup.

I have nothing to say in this place concerning insensible prespiration, because it is a hard matter to increase this evacuation,

(*b*) River. Op. Med.—& Musitan. Trutin. Medic. p. 692. (*c*) Vol. 2. p. 384.

without caufing fweat; and if a diaphoretic courfe can only be ferviceable in an Anafarca, and that only at the beginning, much cannot be expected in any cafe in the cure of a Dropfy, from this kind of evacuation, which feems to be but little in our power to command.

CHAP.

CHAP. VIII.

Its Cure by Externals.

I Have now gone through all the ſeveral ſorts of internal medicines, which are to be uſed in making a diſcharge of the water that occaſions a Dropſy, in any part of, or all over the body. Beſides theſe, experience has furniſhed us with other helps, that ſometimes do great ſervice in this diſorder, when applied to the body externally.

The Hon. Mr. Boyle, and others, have queſtioned whether we do not inſpire alſo, or receive by the ſkin, ſome ſuch particles of matter as actually mix with the blood and juices of our bodies, and ſo occaſion diſeaſes. Let this be as it will, it is moſt certain, that ſome medicines applied immediately to the ſkin, have very often the ſame effect upon us, as if we took them by the mouth. Aloes, and ſeveral other purging medicines applied to the navel will work upon children, and ſometimes bring away

worms by ſtool. Fallopius (*d*) mentions a lady-abbeſs who, inſtead of taking the purging-pills he uſually preſcribed for her, applied them only to the ſtomach outwardly, and in four or five hours they would work as well with her, as if ſhe had ſwallowed them. Oil of turpentine applied to the ſkin will make the urine ſmell of it in a ſhort time; ſome perſons have been purged by ſmelling at medicines; and ſalivations will as eaſily and more effectually be raiſed, by anointing the body with mercury, than by giving it in pills or bolus. Many ſtrange effects have been produced by amulets and charms; and if we may believe ſome phyſicians, whoſe credit in other caſes cannot be diſputed, ſuch cures have often been wrought in this and other diſeaſes by external applications, as are not to be accounted for by any rational philoſophy. Sir Kenelm Digby's ſympathetic powder, or weapon-ſalve, once made a great noiſe in the world; and there are ſome thouſands of perſons who, it is ſaid, have been relieved by this method. The lapis nephriticus, hæmatites, ætites & porcinus, have aſſuredly cured the ſtone, ſtopped hæmorrhages, cauſed abortion, brought

(*d*) Op. Med. p. 13 & p. 26.

brought down the menſes, if we may believe Monardes, Bontius, De Boot and others. Hen. ab Heers tells us, of a woman whoſe bladder was lacerated by the midwife, from whence came a diabetes, that was cured by hanging the aſhes of a toad, burnt alive in a new pot, about her neck; and alſo of a merchant, who was ſubject to the ſame diſorder after lithotomy, who was cured by the ſame application. What real effects the famous Anodyne necklace has upon children in breeding their teeth, the learned may diſpute, while the contriver of it is very ſenſible of its more than ordinary virtues, by the vaſt ſums of money it brings him in daily. Let me not be thought over credulous for quoting ſome of the following hiſtories, the truth of which muſt entirely depend upon the veracity of thoſe authors that relate them. Men of the beſt credit have ſometimes given us ſuch ſurprizing accounts of cures effected by this means, that we muſt either believe the facts, or diſpute every thing which we do not ſee with our own eyes. It might not, I think, be below the greateſt phyſician and moſt able philoſopher to make more experiments this way, ſince a ſufficient number of ſuch

facts, well attested, would either lay a sure foundation for a new philosophy, or teach us to extend the principles of that in fashion, to a great many phœnomena, which have not yet been accounted for.

If the spleen swells after a fever, and the body emaciates, give hydragogues and restoratives. If this does not cure, burn little places round about the navel, and one upon it, so that the water may be drawn off daily. But in children make incisions in all those parts of the body, which are swelled, and draw off the water by degrees, applying fomentations and a warm medicine to the wound *(e)*. The reason for applying these fomentations and warm medicines is, because of the danger there is of a mortification; for according to Aphor. 8. sect. 6. the wounds of dropsical bodies are not easily healed.

By Burns.

By incisions.

By blistering with mustard-seed.

From the foregoing precept C. Celsus says, that in an Ascites mustard-seed should be applied to the belly, till it has raised blisters. It should also be burnt with hot irons in many places, and the wounds should be kept running a long time together.

The

(*e*) Hippocr. de Locis in Hom. p. 417.

By ſcarification and puncture.

The antients frequently uſed ſcarifications in a Leucophlegmacy or Anaſarca. Aſclepiades adviſed a puncture or inciſion on the inſide of the leg, four inches above the ankle, as in bleeding; and if this was not ſufficient he ordered the ſcarification to be made deeper, ſo as to bring it to a wound. Socrates and Themiſon made uſe of the ſame practice *(f)*; ſo did Hippocrates, Leonides and Archigenes, ſays J. Langius in his thirty-ſecond epiſtle, who there aſſures us, that by ſuch wounds the water will be diſcharged in an Anaſarca, Aſcites and Dropſy of the ſcrotum. C. Celſus ſays, theſe wounds ſhould be made four fingers long, that they ſhould be kept running ſome days together; and that ſome authors adviſe the humours to be carried off by bliſters *(g)*. The Egyptians make uſe of this method of curing the Dropſy to this day, according to P. Alpinus.

According to the foregoing advice, one Browning, a very hard drinker, was cured of an Anaſarca in fourteen days, by wounds made in each thigh; by purging every third day with ſucc. iridis; abſtaining in a great

(f) C. Aurelian. p. 489. *(g)* See Dr. Friend's Hiſt. of Phyſ. vol. 1. p. 33.

measure from drink; and by issues made after these wounds were healed *(h)*.

Fallopius *(i)* saw a countryman cure the Anasarca, by scarifying the whole belly with a razor skin deep; for at these wounds the water drained off, and so the patient recovered.

By blistering with cantharides.

"In Dropsies, where diuretics have proved "ineffectual, the best and most effectual "method of drawing off the waters is, by "blistering. Some one or more of them "ought to be kept contiuually running in "several parts of the body, till all the water "is discharged, which by this means will "sometimes be effected in a short time to a "wonder. Afterwards any of the common "diuretics will take place; unless the lym-"phatics are broke, so as to let out the "water into the large cavities of the thorax "and abdomen, for then the disease may "be looked upon as desperate, and will "admit of no cure *(k)*."

To be used with great caution.

According to this gentleman, one would think this way of evacuation must almost be infallible; but whoever makes the experiment

(h) M. Lister de Hydrope. Cas. 1.---& Marcell. Don. de Hist. Med. Mir. p. 422. *(i)* Op. Med. p. 597. *(k)* Morgan's Philos. Princ. p. 439.

ment will often find himſelf deceived. Fabr. *(l)* Hildanus, who was no bad ſurgeon, mentions a lady whoſe legs, being bliſtered for the Dropſy, mortified, and ſo ſhe died in a few days. C. Piſo (*m*) tells us alſo, of a noble lady who died thus, notwithſtanding ſhe had all the care taken of her that can be imagined. Hildanus, upon the former of theſe caſes, makes this excellent remark; In young perſons, and thoſe of a good conſtitution, this method ſometimes gives relief, but it is moſt certainly deſtructive to old people, and thoſe of a decayed conſtitution.

Theſe ſort of wounds, ſays N. Tulpius (*n*), do good to ſome, but injury to more. If the viſcera are corrupted, it is true the water drains away by them, and the Dropſy ſeems to abate; but ſtill, lying in the viſcera, it brings on the wound either an incurable ulcer, or a mortal gangrene. I have ſometimes known ſo great a flux of humours upon the part, from all theſe kind of wounds, as to cauſe moſt intolerable pain without the leaſt relief. This kind of remedy ſhould not therefore be raſhly adviſed. For unleſs the legs be ſound

(l) Obſ. 49. Cent. 1. & de Gangræn. c. 11.
(m) Obſ. 119. *(n)* Obſ. 38. lib. 2.

ſound and the conſtitution good, the ſick cannot bear without damage the ſharp humour of the belly to be thrown upon that part.

Upon this account Dr. Willis (*o*) ſays, that it is more adviſeable in Dropſies to bliſter the thighs and arms, than the legs or feet, where the natural heat is weak and the ſwelling large.

By cautery

The ſame author aſſures us, that eſcharotics or cauteries applied to the legs are ſafer than bliſters, becauſe the flux of the humour upon the part is not ſo great at the firſt, but begins gently and riſes gradually; and alſo, becauſe there is leſs danger of a gangrene.

Pricks with a needle.

Let pricks be made in the ſkin of the legs, with a needle, where the ſwelling is greateſt, ſix or ſeven at a time, about a thumb's breadth from one another. After twelve, eighteen, or twenty-four hours, make as many more in ſome other part of the ſkin, and do ſo once or twice a day, till all the water is diſcharged. Theſe are the ſafeſt of all theſe ſort of wounds, and by this method, if internals are not neglected, a Dropſy may eaſily many times be cured. An old man, ſeventy

(*o*) P. 325.

ſeventy years of age, was, by this remedy only, kept alive many months, contrary to every one's expectation (*p*).

I have hitherto ſaid nothing about bleeding, becauſe it has generally been looked upon to be pernicious in this diſtemper; and ſo indeed it muſt be where a Dropſy is come to a great height, the viſcera are corrupted, and the conſtitution upon the decline. From the fourth chapter of this diſcourſe it is evident, that Dropſies come frequently from a ſuppreſſion of ſome uſual evacuation, from falls, violent motions, over-heating the blood with ſpirituous liquors, and the like; that Dr. Sydenham was miſtaken, when he aſſerted, that in all Dropſies the blood was too thin and watery; and laſtly, that the blood in this diſorder is frequently too thick, viſcid and ſizy. In all theſe caſes then, before the lymphatics are broken, and the viſcera corrupted, bleeding muſt be abſolutely neceſſary, and ought to be made uſe of, before any other evacuation is attempted. This the antients were very ſenſible of, and therefore Al. Trallian is very particular about bleeding at the beginning of an Anaſarca, when it comes from too much cold blood. He

Of bleeding.

(*p*) Willis de Aſcit.

He alſo ſays, if the liver, ſpleen, or ſtomach are ſwelled and hard, blood muſt be taken away, eſpecially if the veins are full, and the patient young, and the ſeaſon not too cold. But theſe things ought to be well conſidered; for as unſeaſonable bleeding is dangerous in other diſorders, it is certainly mortal in a Dropſy. Hippocrates goes farther and ſays, that even in a confirmed Dropſy, where the breath is ſhort, if it be either ſpring or the middle of ſummer, blood ſhould be taken from the arm. But C. Aurelianus (*q*) rebukes the old man for this doctrine, and ſays, if bleeding be neceſſary at theſe times, he can prove it to be ſo at any other.

By iſſues.

Though, according to Hippocrates, the wounds of dropſical perſons are dangerous, as being hard to be cured; yet iſſues made in the legs and thighs of ſuch perſons have often been very ſerviceable, in abating the anaſarcous ſwellings of thoſe parts (*r*).

By fomentations.

In this caſe Mr. Wiſeman (*s*) recommends a fomentation of warm herbs, juniper-berries, ſulphur vivum, alumen rup. and ſalt in ſpring-water, to take off ſome of the humour by the

(*q*) P. 485. (*r*) Fabr. Hild. Obſ. 74. Cent. 4, &c.
(*s*) Vol. 1. p. 141, 204, &c.

the pores of the ſkin, and ſtrengthen the relaxed tone of the veſſels. After the uſe of this, the legs he ſays muſt be rolled up every day; and then laced ſtockings, knee-pieces and trowzers muſt be uſed, which he would have ſtreightned every day, ſo as the patient can bear it eaſily. He gives the hiſtories of ſeveral perſons, who have been cured by theſe means, in his treatiſe of Surgery.

Dry ſweating is proper in the Anaſarca, but baths and all ſort of moiſture is hurtful, according to C. Celſus. The antients however recommended in this diſorder, baths; rubbings, as with a fleſh-bruſh; exerciſe, whether the motion was made by being carried upon men's ſhoulders, on horſeback, or in a ſhip at ſea, &c. unctions; expoſing them to the heat of the ſun, a hot fire, the hypocauſtum, &c. All theſe things muſt doubtleſs be of great ſervice at the beginning of an Anaſarca, before the pores of the ſkin have been too long obſtructed and loſt their elaſticity. From theſe hints I have often thought dropſicial perſons might ſometimes receive great benefit by being ſweated in what they call the hot-houſe of a ſalt-work, where the ſalt is dried after it is taken

By bathing.

taken out of the pans and put into the baſkets. I could heartily wiſh, that as Sir J. Floyer and Dr. Baynard have brought cold bathing again into faſhion, ſome other phyſicians would endeavour at leaſt to reſtore ſome more exerciſes of the antients, which I am ſure would be greatly ſerviceable, not only in preſerving our health, but in reſtoring decayed and worn-out conſtitutions.

By the pſammiſmus.

The Anaſarca, according to Dioſcorides, C. Aurelianus, and others, is ſometimes cured, when other things have failed, by the pſammiſmus; i. e. burying the patient up to the neck in the ſand of the ſea-ſhore. This I own was a common practice in Egypt, Africa, and ſome other hot countries, but will I fear do but little ſervice in a climate ſo cold as this of Great-Britain. The hot-houſe before-mentioned might perhaps ſerve our turns as well; eſpecially if what Dr. Strother (*t*) ſays is true, viz. that the warmth of the nurſery is abſolutely neceſſary, when young children are troubled with the Hydrocephalus, to exhale the ſerum, which abounds too much in their tender fibres.

Dr.

(*t*) Eſſay upon Health, p. 13.

Dr. Sydenham ſays, he never could find any great ſervice, from the external application of medicines in this diſorder. In an Aſcites, cataplaſms and liniments applied to the abdomen, to diſcuſs the tumour, do the leaſt damage: but I cannot ſee how the water can be drained off by this means. Some of theſe applications are ſo far from doing good, that they often do harm; ſuch as are compoſed of the ſtronger cathartics, and applied to the abdomen under the form of ointments (*u*). Not only external medicines, but bliſters, pricks with a needle, tapping, and all other operations of this kind, are condemned by this author; and he ſays, none of them can ever be adminiſtered without uncertainty and great danger.

External medicines condemned by Dr. Sydenham.

Dr. Willis however ſays, plaſters ſometimes do good in an Aſcites; but then they muſt by their reſtringent and warming quality comfort the viſcera, and contract the mouths of the veſſels, that they may not leake any longer. The emplaſtr. diaſapon. or the empl. de minio & empl. Paracelſi āā q. ſ. are the moſt proper things to apply to a ſwelled belly. Such applications as cauſe no evacuation muſt, in my opinion, be moſt proper

Approved by Dr. Willis.

(*u*) Op. Med. p. 470.

proper when the load of water has been removed by medicines or tapping; but they are not ſo often made uſe of as perhaps they deſerve.

Etmuller and others

Etmuller (*x*) commends theſe applications following in an Aſcites, ſwellings of the ſcrotum, of the labia vulvæ, and of the feet. Fomentations, cataplaſms, and bags in wine or lye, made of attenuating, reſolving, diſcutient aromatics, viz. Fol. ſambuc. ebuli, lauri; herb. chamomil, menth. origan. abſynth. ſucc. cucumer. aſinin. rad. bryon. aſari. cucum. agreſt. ſem. milii. ſem. calid. maj. bacc. lauri, & juniperi, ſtercora omnia, humanum caprillum columbin, equinum, &c. urina humana, olea juniperi, ſambuc. aneth. limac. bufon, &c. cochleæ cum teſtibus. Geranium robert. & chelidon maj. when bruiſed and applied to the feet, take down the ſwelling of them mightily; ſo does petroſelin, freſh gathered and applied to the ſcrotum. Petrus a Caſtro had a ſecret, which was, ſnails beat to pieces with their ſhells, with which he cured the Aſcites and Hydrocephalus. Several forms of medicines, compoſed of the ingredients here enumerated, may

(*x*) Vol. 1. p. 303, 304, 415. Op. Med.

may be ſeen in this author, in the places before quoted.

R. Urinæ pueri mund. ℔jjj. ſal. prunell. ℥jjj. bull. ad 3ᵃ partis conſumptionem pro fotu.

This fomentation is commended by Riverius.

R. Sp. vini rectificat. ℥jjj. ſp. lavend. ℥j. pill. cochiæ maj. ℥ſs. opii crud. ʒjj. m.

Dr. Fuller calls this medicine his lavamentum hydropicum, and ſays, that being uſed either by itſelf, or with an equal quantity of oil of elder-flowers, it is accounted a powerful remedy againſt watery ſwellings. The bellies of children, and the feet of men when ſwelled, ſhould be anointed with it twice a day before a warm fire. This opens the pores, and makes the ſizy lymph there ſtagnating either tranſpire, or return again into the circulation; and there can be no danger of a mortification from the uſe of it, becauſe of its ſpirituous particles.

When the legs have been ſcarified, the cataplaſma pro bubone peſtilent. & corbuncul. in the Pharmacop. Pauper. is a good medicine to prevent a mortification; but at theſe times fomentations muſt not be forgotten.

Pontæus *(y)* the famous mountebank ſays, that for the Aſcites, when other things have failed, one of the beſt remedies in the world is, to take the plant called morſus diaboli, and put it over the fire in a dry kettle, that it may become wet by its own juice only. A ſufficient quantity of this muſt be applied to the belly and reins of the patient. He muſt then be covered up warm, ſo as to cauſe him to ſweat, which he will be ſure to do profuſely. This muſt be carried on according to the ſtrength of the patient and exigency of the caſe.

By morſus diaboli.

Dioſcorides and Pliny tell us, that the herb hemerocallis, not far unlike the lilly of the valley, applied thus to the belly, will bring away water and uſeleſs blood: and Etmuller aſſures us, that cherefolium, applied after the ſame manner, will act as a diuretic.

Hemerocallis.

Cherefolium.

Freſh rue fried with oil of walnuts, and applied hot as a cataplaſm to the navel, and ſo renewed twice or thrice a day, is called by Mr. Boyle (z) an experienced remedy for an Anaſarca.

Rue and oil of walnuts.

R. Sapon.

(y) Philoſ. Tranſ. abr. vol. 3. p. 141.
(z) Works abrid. by Shaw, vol. 3. p. 667.

R. Sapon. nigr. ℥vj. croc. Brit. ʒſs. ſal. ſuccin. gr. 15. m. f. cataplaſma. Black ſoap.

A gentleman who had formerly been run through the breaſt, in a duel, had every year, about the ſame time that the wound was received, which was in the ſummer, a violent pain in that part, and a ſuppreſſion of his urine. He took diuretics inwardly to no purpoſe, at length this cataplaſm was applied, which gave him eaſe, and made him make water plentifully *(a)*.

Aquapendens, from Avicenna *(b)*, highly commends a ſponge, dipped in aq. calcis mixed with the juice of myrtle, for the cure of an Aſcites, if applied all over the belly; and tells us of a nobleman's ſervant, who was cured of a Dropſy and ſchirrhous ſpleen by the conſtant application of a ſponge dipped in aq. calcis only to the part affected. From his authority, I ſuppoſe, Etmuller *(c)* recommends this as a ſingular method for diſcuſſing dropſical tumours. Aq. calcis.

(a) Harris de Morb. acut. Infant. p. 156. Strother's Pharmacop. p. 136. *(b)* De Tumor. p. n. cap. 9 & 12. & River. Op. Med p. 206. *(c)* Op. Med. vol. 1. p. 304.

Toad. The uſe of the toad, in phyſick, was not found out by reaſon but by chance, as is plain from Hildanus and Solenader.

Gradus ſays, that during the plague, A.D. 1450, a countryman applied toads cut aſunder, and alſo alive to his plague ſores. The latter ſoon died and drew out the venom, inſomuch that all the ſick that uſed them recovered *(d)*: and Hoffman, in his Clavis Pharmaceutica *(e)*, aſſures us, that half a drachm of the powder of dried toads was of great ſervice to many people, by making them ſweat, when the plague was in London, A. D. 1665. Helmont ſays, that one Bucler, an Iriſh ſurgeon, was the inventor of this medicine; and that he ſaved the lives of ſome thouſands by it during that diſtemper. The way of preparing the powder may be ſeen in Hoffman as above.

An old woman ill of a Dropſy, by the advice of another old woman, took toads (ranæ rubetæ) alive, and put them into a new earthen-pot with oil of olives, and boiled them together. With this oil warm ſhe anointed her belly, beginning at the ſtomach and ſtroking her hands downwards. On the ſecond

(d) P. Foreſt. Obſ. 35. p. 253. See alſo Fabr. Hild. Op. p. 1028. *(e)* P. 644.

ſecond day the ſwelling fell into her feet, ſo that they ſwelled exceedingly. She followed on the ointment, and on the third day the tumour diſappeared, without any viſible evacuation *(f)*.

From ſuch a hiſtory as this it is probable Riverius contrived the following cerate.

R. Bufon. ℔j. ceræ ℔ſs. bulliant. in olla lutata ad mediæ partis conſumpt. colentur & f. ceratum, quod extendatur ſuper alutam, & regioni lienis applicetur. This he ſays, will bring away all the water of a Dropſy.

Among the ſecrets of this author which are printed at the end of his works, an oil made of this animal is commended for curing the tinea or ſcalled head, morphew, and Dropſy.

A. Pitcairn *(g)* ſays, there are ſome who tie a whole toad dried to the loins, to promote the ſecretion of urine; but although he had ſeen an hæmorrhage at the noſe, which would give way to no other means but bleeding, to ſtop immediately upon

 holding

(f) P. Foreſt. ut ſupra. *(g)* Elemen. of Phyſ. b. 2. chap. 21. p. 286.

In the Medical Eſſays of Edinb. vol. 2. p. 307. a poor woman, who had laboured under a ſuppreſſion of urine eight or ten days, was relieved by this means.

holding ſuch a toad in the hand; yet how it ſhould promote ſecretion, he was at a loſs to find out, if it be only worn outwardly.

This gentleman was for accounting for every thing in phyſick from mathematical reaſoning, and was therefore unwilling to own his ignorance in any thing; elſe I preſume, if he could this way account for the ſtopping of the hæmorrhage, which he owns he ſaw, by an inverſe method of arguing he might as well account for the water of a Dropſy being diſcharged by this application. But both theſe caſes ſeem not at preſent to admit of any ſolution, at leaſt not a mathematical one, and muſt therefore lye among the incognita, which are left for poſterity to diſcover. There are many other phænomena in phyſick, which will admit of no ſolution at preſent, as well as theſe cures, which have been wrought by the application of toads to the hands, loins, and neck, if any credit is to be given to hiſtory.

Vierus and Varignana are very particular about this kind of application. They ſay the toad ſhould be found in the woods, and cut through the middle of the belly; that being thus tied about the loins, it brings away water plentifully by urine; and that a freſh

a freſh toad muſt be applied as often as we would have this evacuation promoted. But I fear I have already ſaid too much about this loathſome animal.

P. Foreſtus (*h*) has a peculiar way of ſweating his patients for a Dropſy, by heating bricks very hot, pouring white wine upon them, and then applying them to the whole body, from the ſhoulders to the feet gradually. This method, I ſuppoſe he learnt from our countryman John de Gadeſden (*i*), who adviſes nine ſtones to be taken out of a river, to be heated very hot, and then wine to be poured upon them, and ſo to be put into a bed till it is well heated, when the patient muſt be put into it and ſweat. By hot bricks.

Riverius (*k*) ſays, he cured a Hernia aquoſa in a child of eleven months old, by a cataplaſm of bean-flower ℔ ſs. boiled in ſtrong wine to a due conſiſtence, and then adding oxymel ſimpl. ℥jjj. It was renewed night and morning, and the cure compleated in eight days.

The green leaves of bardana, bruiſed and changed every twelve hours, will cure drop- Butter-bur.

U 4 ſical

(*h*) Obſ. 32. p. 247. (*i*) Roſa Anglica, p. 34, 1.
(*k*) Obſ. 4. Cent. 2.

ſical ſwellings and eaſe gouty pains, according to Etmuller.

SECT. II. *Of Tapping.*

By tapping.

Some, or all the foregoing medicines having been made uſe of and found ineffectual; it is plain the water muſt be out of the veſſels of circulation: ſo that nothing more can be done, than to paſs a proper inſtrument into the body or collection of water, and ſo diſcharge it. In an Anaſarca then this operation can be of no ſervice, but may ſometimes in all other.

The name

When the abdomen was filled with water, which was to be diſcharged by an inſtrument, the Greeks, and from them the Romans, called the operation paracenteſis, or puncture (*l*): this we call tapping. In the Hydrops pectoris, the operation goes by the ſame name; but when the collection of water is made in any other part of the body, we do not make uſe of any particular term, the water being let out by inciſion or otherwiſe.

If to be uſed.

Euenor, Eraſiſtratus, Theſſalus, and ſome other of the antients, would not allow of this operation for the following reaſons: 1ſt, They

(*l*) Παρακέντησις, from κεντέω to pierce, and παρὰ through.

They ſaid the peritonæum was nervous, and therefore could not bear wounding without great danger: 2d, Becauſe the organs of reſpiration might be wounded by this operation: 3d, Becauſe many, by opening the wound after tapping, had loſt their lives: 4th, Becauſe this operation only gives eaſe to, and reſpites the patient for ſome time, but perfectly recovers none: 5th, Becauſe, according to Ptolemy and Eraſiſtratus, it is always deſtructive, when the Dropſy proceeds from a ſcirrhous liver. All theſe objections are fully anſwered by C. Aurelianus (*m*), ſo that I ſhall only ſay, that although there is ſome hazard in the operation, yet it may be made uſe of; ſince ſome have been recovered by this means, and many have had their lives prolonged by it for many years, as both experience and hiſtory often teſtify.

In this operation the antients made uſe of a ſhart knife or lancet, with two edges, called ſpathomele by Hippocrates. This they paſſed into the maſs or body of water, and then putting a canula of braſs or lead into the wound, drew off the water. The trochar

The inſtrument.

(*m*) Op. p. 478, 479, &c.

trochar (whether invented by Barbette (*n*) or Blockius, ſignifies but little) is a more convenient inſtrument. This is now ſo common it needs no deſcription. The edges of this inſtrument are not ſo ſharp, as to endanger the wounding the inteſtines, or any other noble part: and the ſilver canula being introduced along with it, prevents a deal of pain to the patient, being left behind in the body, for the water to be diſcharged by. C. Celſus tells us, that many opened the abdomen by cautery, rather than an inſtrument, becauſe theſe kind of wounds do not heal immediately (*o*); and indeed, where the Dropſy proceeds from hydatides, this method muſt be preferable to the trochar; a larger wound being here required, than can be made by that inſtrument.

Place of the wound

Hippocrates, Ægineta and others of the antients, have left us large accounts of this operation. They are very exact in aſſigning the place, where the puncture is to be made, which

(*n*) See Barbette, p. 50. (*o*) For this reaſon Fienus, in his definition of the paracenteſis, extends the word to all wounds made into the cavities of the breaſt and abdomen, whether they be done by a ſharp or edged inſtrument; or by the cautery, whether actual or potential.

which they ſay muſt be juſt three fingers breadth below the navel, on the right-ſide, if the liver is in fault, but on the left, if the Dropſy comes from the ſpleen. C. Celſus and C. Aurelianus caution us much againſt opening a vein in this operation; but here are none ſo large as to endanger the life of the patient, ſhould they chance to be wounded. When this operation is thought neceſſary, the water is ſuppoſed to be lodged either in the duplicature of the peritonæum, or elſe within the cavity of the abdomen; ſo that it matters not on which ſide of the linea alba we make the wound, or whether it be made ſomewhat higher, or ſomewhat lower, than Paulus adviſes; for a rupture of the navel has ſometimes diſcharged all the water of an Aſcites, as we have already obſerved (*p*). Many authors take great pains to ſhew the exact place, where this puncture is to be made. Fallopius (*q*) ſays, it ſhould be done in the moſt fleſhy part, becauſe there the wound will ſooneſt heal; and by two lines, one drawn through the other wide of the navel, delineates the place. Mr. Garengeot (*r*) gives us a rule very different from the

Below the navel.

(*p*) P. 169. (*q*) Op. p. 596. (*r*) Chirurg. Obſervations.

the foregoing, when he ſays, the wound ſhould be made in the middle between the navel and ſpine of the os ilium; which ſpine being of a conſiderable extent, left room for error, till Mr. Monro *(s)* corrected it, by obſerving that, in a ſound ſtate, a point four inches below and to either ſide of the navel, is the middle between the navel and the anterior ſpinal proceſs of the os ilium; and that the muſcular parts of the abdomen being near equally diſtended in an Aſcites, this muſt be the exact point where the perforation ought to be made. This correction ſuppoſes that, in a ſound ſtate, the diſtance from the navel to this anterior proceſs muſt be the ſame in all bodies, which we know it is not; or elſe, that the exact diſtance was known in a healthy ſtate in the perſon to be tapped; for if this exact diſtance was not known when in health, the operator will, notwithſtanding this rule, be liable to uncertainty.

A phyſician of my acquaintance, ſticking too cloſely to ſome of the foregoing directions, cauſed a gentlewoman, whoſe belly was vaſtly diſtended, to be thrice pierced with the trochar, when from all the wounds they

(s) Medical Eſſays, Edinb. vol. 1. p. 216.

they could not get more than two or three ſpoonfuls of blood and water together. Some time after I was called to viſit her, when I found her much diſpirited at the ill ſucceſs of the operation, the largeneſs of her belly, and the apprehenſions of no water being in it. However I ſoon ſatisfied her, that it was water which occaſioned the ſwelling; and having found a thin place, pretty near the navel on the left-ſide, I ordered the gentleman who had made the other unſucceſsful attempt to paſs in his inſtrument, and from thence was diſcharged ſomewhat more than eight gallons of water.

At the navel.

Sam. Formius, an old experienced ſurgeon of Montpelier, having communicated to Riverius the caſe of a perſon who being in an Aſcites had an exomphalos or prominence of the navel, and was cured by a paracenteſis, or puncture made in that part, makes this uſeful remark upon the matter: All die, ſays he, whoſe navel is opened for an Aſcites, unleſs nature points out the part by an exomphalos. This prominence may be procured by art; for dry cupping, emollient and attractive fomentations being applied

to

to the part, will cauſe it to riſe and be fit for the operation in eight days (*t*).

Time of this operation.

Whenever a lymphaduct is broken, the water which ſhould circulate through it muſt be depoſited upon the part to which it belongs, and muſt hourly increaſe till the extravaſated matter can be diſcharged, and the mouth of the leaky veſſel ſtopped. From hence it follows, that as ſoon as there is the leaſt quantity of lymph lodged on any part, out of the laws of circulation, we ought to diſcharge it immediately. It is a very difficult matter to diſtinguiſh, either by the touch or otherwiſe, whether the lymphaducts are broken, or only diſtended; and upon this account, I preſume dropſical people ſo often delay making uſe of this operation, till that which alone could have given them relief, ſerves only to hurry them to the grave. Where there is but one drop of matter formed, every ſurgeon endeavours to diſcharge it immediately; and ſhall not a phyſician give the ſame advice, when he finds the lymph extravaſated, and too ſizy to paſs off by the common emunctories? This, as well as pus, will daily increaſe in quantity; will

(*t*) River. Op. Med. p. 571. obſ. 5. See this point treated of more at large by T. Fienus, tract. 6. c. 3.

will in time become corrosive, and destroy the viscera which lie near it; will take away the appetite, prevent sleep, weaken the whole body, and bring it to destruction. These things then, being rightly considered, shew us how carefully we ought to follow this precept of the divine (*u*) Hippocrates, TAP EARLY FOR A DROPSY.

As to the posture of the patient, he should according to Paulus be either sitting or standing; for where a person is so weak as not to bear one of these positions of his body, this operation should not be attempted. The posture of the body.

The water or matter which occasions an Ascites, and is now to be discharged, is of different colours, smells, taste, consistences (*x*), &c. Some physicians have pretended to foretel by the urine, skin, or part affected, what sort of liquid is contained in the abdomen; but there is not the least certainty in these sort of conjectures. Water of several kinds.

Most of the antients, and many of the moderns, advise the water in an Ascites to be drawn off at several times; and Paulus says, the strength of the patient, together with his pulse, are the only guides to direct us The quantity to be taken away. By degrees

(*u*) De Morb. vulgar. lib. 6. chap. 3.

(*x*) See Obs. 10.

us how much ought to be taken away at one time. Hippocrates *(y)*, and from him C. Celſus *(z)*, aſſures us, that thoſe who labour under an Empyema or Dropſy, if they be cut or burnt, and the matter or water be all taken away at once, die certainly. A. Pitcairn (*a*) ſays, if the water was to be drawn off all at a time, the patient muſt die immediately, from a ſudden falling of the diaphragm, and the viſcera annexed thereto, which before were held up by the water. Wiſeman will have it, that nothing is more pernicious to the patient, than great evacuations, though of excrementitious humour; and therefore will by no means allow the water to be taken away all at once. C. Celſus (*b*) ſays, that ſome draw off the water at twice; for by putting the canula into the wound the next day after the operation, they diſcharge the remainder of the water. Boerhaave (*c*) will not allow us to take away the water under fifteen days. Thouvenot, as quoted by Strother (*d*), uſed to take away from ſtrong bodies ſeven, ten, or twenty pound of water at a time, and not

(*y*) Aph. 27. lib. 6. (*z*) Lib. 2. cap. 8.
(*a*) Elem. of Phyſ. p. 287. (*b*) Op. p. 451, 452.
(*c*) Aphor. 1240. (*d*) Pharmac. p. 196.

not more than five, ſix, or ten from weak ones; and thus within three or four days he took it all away. If it increaſed again he uſed the ſame method, and in the mean time he gave mild diuretics, gentle cathartics, and injoined moderate exerciſe. C. Aurelianus is the firſt, who adviſes us to take away all the water at once, unleſs ſomething happens to prevent it. Dr. Mead (*e*) has lately revived this practice, which in England is now generally uſed, and ſeems preferable to the other method, for theſe reaſons following: 1ſt, When the water is drawn off at ſeveral times, either a canula muſt be left in the body, or a freſh wound muſt be made every time we renew the operation. By the former of theſe ways the parts are ſometimes injured, great pain and inflammation is often occaſioned, and now and then a mortification enſues. The making a great number of freſh wounds in this part of the body, muſt not only be troubleſome but dangerous. 2d, No extravaſated fluid, in whatever part it is lodged, can ever be ſuppoſed to be neceſſary to life. The ſooner therefore and quicker the water of an Aſcites is diſcharged, the better it muſt

(*e*) Medical Eſſays of Edinb. vol. 1. p. 217.

be for the patient. 3d, When the water is taken away at ſeveral times, no bandage can be of any ſervice. Every ſurgeon well knows, that this is more neceſſary than medicines, in bringing the divided fibres together, cloſing the mouths of the broken veſſels, and ſo preventing a flux of humours upon any wounded part of the body. Bandage therefore muſt be as neceſſary in this caſe, when the water is once diſcharged, as in any other where matter has been lodged. Mr. Littre ſays, as it contributes to a quick reunion of the parts it is abſolutely neceſſary; and C. Aurelianus is poſitive, that it hinders the belly from ſwelling again. 4th, C. Aurelianus orders us, when we take away all the water at once, to compreſs the belly with our hands; to apply lint and a ſpunge to the wound, and to roll up the belly with a faſciola or narrow roller. By this means the ſyncope, faintings, and ſickneſs occaſioned by the ſudden removal of the preſſure of the abdominal muſcles, are prevented; which are the only things to be feared in this caſe. A profeſſor (*f*) of anatomy at Edinburgh, has publiſhed an account of a bandage with ſtraps and buckles to be uſed inſtead

(*f*) Med. Eſſays, vol. 1. p. 214.

inſtead of rollers, which I have often thought, before I ſaw this treatiſe, would be of great advantage to the afflicted during this operation. Dr. Pitcairn, and the other gentlemen who aſſure us the patient muſt die under this operation, from a ſudden falling of the diaphragm, did not conſider how eaſily this might be prevented. If the reader is not ſatisfied with what is here offered, he may conſult Dr. Friend's ſecond volume of the Hiſtory of Phyſick, where he will find this topick handled more at large.

Who fit for this operation.

Thoſe perſons only, whoſe viſcera are ſound, are fit to undergo this operation; for where they are corrupted, the patient by this means is hurried to deſtruction. C. Celſus (*g*) tells us, that thoſe whoſe ſtomach is deſtroyed, fall into a Dropſy from melancholy, or have an ill habit of body, are not fit to undergo the paracenteſis. Boerhaave (*h*) will not allow of this operation, under any other conditions than theſe following: 1ſt, The Dropſy muſt not have been long in coming: 2d, The ſtrength muſt not be impaired: 3d, The body muſt be young: 4th, The viſcera muſt be ſound, and not injured by any other diſeaſe: 5th, The

(*g*) Op. p. 166. (*h*) Aphor. 1239, 1241.

water muſt not be putrid, nor long extravaſated. Children are ſeldom tapped without danger; and Galen ſays, he never ſaw but one who eſcaped; ſo that Albucaſis excludes all thoſe of ſuch a tender age from this operation. The like obſervation holds good, when the veſſels are weak, or the blood in a very languid ſtate, let the cauſe be what it will, as in the caſe of thoſe, who are worn out with ſickneſs or old age.

In what ſorts of Dropſies to be uſed.

There are ſeveral ſorts of Dropſies, or there are collections of water in ſeveral parts of the body, where the paracenteſis is of great ſervice, or which ought to be diſcharged by puncture, inciſion or cautery. When the liquid is contained in ſeveral veſiculæ, or the tubæ Fallopianæ, a large wound muſt be made, if we expect to do any ſervice. If the water is contained in the duplicature of the peritonæum, the paracenteſis, if applied ſoon enough, is more likely to give relief, than in any other kind of Dropſy, becauſe the bowels are not here corrupted by lying in the extravaſated ſerum. Mr. Cheſelden (*i*) however is of opinion, that of all thoſe he had diſſected in this caſe, none could have been cured by this operation;

In that of the peritonæum.

(*i*) Anatom. p. 140.

tion; becauſe the water had made the parts where it was contained as foul as an ulcer. Now if any of theſe could have been cured by the paracenteſis, it muſt have been uſed before the water had occaſioned this corruption of the parts, as I have before demonſtrated.

In an Hydrocephalus, if the water lies within the ſkull, Albucaſis thought it not proper to make an inciſion, or attempt to let it out (*k*); and Fabr. Hildanus ſays, this operation in this caſe is immediate death: if it lies between the hairy ſcalp and pericranium, it muſt be let out by inciſion or cautery. Cures made this way may be ſeen in Wiſeman's Treatiſe of Surgery, and other authors of that kind. In an Hydrocephalus or head.

When we are aſſured there is a collection of extravaſated lymph in the cavity of the breaſt, medicines of any kind can do no ſervice. In this caſe it is beſt to apply a cautery, and draw out the matter as in an Empyema. Hippocrates (*l*) directs us, when there is a tumour on the outſide of the breaſt, as there ſometimes is, to cut between the ribs, and cure it: if there is none ex- In the breaſt.

(*k*) Dr. Friend's Hiſt. of Phyſ. vol. 2. p. 306.
(*l*) De Morbis, lib. 2. p. 483.

ternally, he ſays we muſt proceed as in an Empyema. Some open the breaſt in this caſe by a trepan fixed upon the ſternum; others make an inciſion betwixt the fourth and fifth ribs, reckoning from the baſtard ribs upwards. They meaſure the length from the cartilago enſiformis to the poſterior proceſſes of the ſpine, and divide it into three parts. One of theſe they lay from the aforeſaid proceſs, or two from the ſternum, and there make inciſion (*m*). It is better to make this wound ſix fingers breadth from the proceſs aforeſaid, which may be done by inciſion, actual or potential cautery. A canula muſt be introduced, and two, three, or four ounces of water drawn off every day. This wound muſt be made bigger or leſs, according to the thickneſs of the matter contained in the breaſt (*n*).

The place between the fourth and fifth ribs.

According to Hippocrates, Guido, Am. Luſitanus, &c. this aperture muſt be made between the third and fourth ribs, beginning to reckon from the lowermoſt: Fienus, Riverius, &c. ſay, it muſt be betwixt the fourth and fifth; and P. Ægineta, Vidus Vidius, Sennertus, Barbette, &c. moſt approve

The third and fourth

The fourth and fifth.

(*m*) Act. Med. Hafnienſ. vol. 1. (*n*) A. Nuck Exper. Chirurg. No. 31. p. 106.

prove of it betwixt the fifth and ſixth. Some ſay it ſhould be made between the eighth and ninth, and others between the ninth and tenth, at ſuch diſtance from the vertebræ, that the depth of the fleſh may not be an impediment to the operation; but Mr. Sharp approves of it beſt between the ſixth and ſeventh, half way from the ſternum towards the ſpine, for reaſons there mentioned. From this uncertainty among theſe great men, I think we may reaſonably conclude, that any of theſe places will ſerve our turn well enough: that if nature points out any of theſe places by an external tumour, as ſhe does ſometimes, we ought there to perform the operation: and laſtly, that if we take care not to injure the diaphragm, by making the wound too low; or the lungs and pericardium, by making it too high; or the in-intercoſtal artery, by making it too near the ribs; we may in any of theſe places ſucceed in the operation.

The fifth and ſixth. The eighth and ninth. The ninth and tenth.

Hippocrates (*o*), for fear of cutting the veins that run along the edge of the ribs, adviſes us not to make a wound betwixt them, but rather to perforate the body of the third rib itſelf. This precept Fienus

The to b pier

(*o*) Lib. 1. de Affect. intern.

approves of in Dropſies, but is of opinion, ſince the hole can be but ſmall, that it will not ſometimes be ſufficient to diſcharge the matter of an Empyema.

In the ſcrotum.

When there is a collection of water in the ſcrotum, teſticles, or indeed in any other part of the body, all good ſurgeons adviſe it to be let out as ſoon as poſſible. This muſt be done by puncture, inciſion, cautery, ſeton, &c. Inſtances of this kind of operation, are ſo common in treatiſes of ſurgery, that I ſhall ſay no more of it in this place *(p)*.

What is to be done after the operation.

After the paracenteſis has been performed, the firſt day food is not neceſſary, unleſs the patient be fainty. Afterwards he ſhould drink ſtrong wine, but not much; and by degrees ſhould be brought to exerciſe, rubbing, the ſun, ſweating, fatigue, and proper food, till he is perfectly recovered. Warm bathing, often vomiting upon an empty ſtomach, and ſwimming in the ſea in the ſummertime, are agreeable; and after a recovery, the patient ſhould abſtain a long time from venery *(q)*.

SECT.

(p) Fabr. Hildan. Obſ. 65, 66, 67, 68. Cent. 4. Dodonæi, Obſ. 39, 40, &c. *(q)* C. Celſus, Op. Med. p. 166.

SECT. III. *Of irregular Practice.*

Empirical cures.

I have already obſerved how medicines were at firſt found out, and conſequently by what means phyſic was at length reduced to the rules of art. Where authors treat of the cure of diſeaſes by a regular method or way of practice, every thing which does not fall in with their particular ſcheme is branded with the name of empiriciſm; though ſometimes perhaps founded upon as good reaſon and obſervation, as the doctrine they ſo earneſtly endeavour to eſtabliſh. A violent diſtemper, doubtleſs requires a violent remedy. Books (the more the pity) are not always to be believed. He that ſometimes ſteps a little out of the common road of practice, will frequently be more ſerviceable to the afflicted, than he, who truſts altogether to the αὐτὸς ἔφη of the moſt celebrated author. For this reaſon I ſhall here give a few different methods of practice, which go under the name of empirical; but as they have once been ſerviceable, who knows but in deſperate caſes they may give relief again?

A bold and ignorant empiric cured dropſical ſwellings in the legs, after the following

ing manner: First, He fomented the shins night and morning with a decoction of elder, wormwood, camomile, &c. in the lees of wine; then he laid on a cataplasm of the same ingredients mixed with bran. After he had done so for three days, he covered both the shins and feet with a plaster of Burgundy pitch all over, except a small hole upon each shin about the compass of a hazel-nut, where he applied an escharotic made of the ashes of the bark of the ash-tree. After twelve hours this was removed, when the water began to come out. The discharge was at first but little, increased daily, and at last, when the eschar dropt off, the water ran as out of a spring, till it was entirely discharged (*r*).

A surgeon, of good reputation and practice, has frequently taken down ædematous or dropsical swellings of the legs in the following manner: He boils three balls made of fern-ashes in a gallon of water, so as to make a strong lye; then he dissolves in it an ounce of the balsamum saponaceum, made of salt of tartar and oil of turpentine. With this liquor he wets a quantity of bran, sufficient to cover the whole legs; and so lets the

(*r*) Willis de Anasarca, p. 325.

the legs lie in it till the ſerum oozes through the ſkin, which it will ſometimes do in great quantities.

A phyſician of great note ſometimes directs a decoction of ſage and elder-flowers to be made; then a certain quantity of hard ſoap to be diſſolved in it, viz. an ounce or two to a quart, and the ſwelled legs to be fomented with this liquor night and morning. Then he takes cabbage-leaves, cuts off the large ſtems, rolls them ſmooth with a rolling-pin, ſtews them with ſmooth ale in a ſtew-pan over a gentle fire, till they are ſoft, and after fomenting covers the legs with them, and ſo rolls them up. In three or four days, he ſays, the humour will begin to drain away; but upon trial, I have ſometimes known the leaves become dry and brittle, and ſo repell the humour as to endanger ſuffocation.

The lungs of an ox, ſlit and applied hot to the ſoles of the feet, has cauſed a drain ſometimes, and ſo taken down theſe kind of ſwellings, as I have been informed by a perſon of credit.

A certain empiric thus cured an Hydropic perſon, who had both an Aſcites, and Anaſarca. He took wormwood, rue, ſage,

ſage, and lavender, of each five handfuls, and boiled them in ſome gallons of ſpring-water, adding as much common ſalt as would make it like brine or pickle. In this was boiled a thick, ſtrong cloth, wherein the patient was wrapt entirely all but his head. He was then put to bed, and ordered to ſweat five or ſix hours, or until the ſpittle flowed out of his mouth like the brine itſelf. He was then taken out of the cloth, and put into another hotbed, where he again ſweat for three or four hours. In the mean time he drank plentifully of Spaniſh wine; and at the ſecond adminiſtration, they added to the decoction a large quantity of cow-dung *(s)*,

The prior of Cabrieres, who in the laſt century made a large collection of rarities and gave them to the king of France, among his ſecrets in phyſick has the following method, by which he pretends to cure all ſorts of Dropſies. Take filings of ſteel and ſpirits of vitriol a certain quantity, and make into a powder *(t)*. Of this the patient muſt take ſix grains every day. A ſmall glaſs

(s) A. Pitcairn's Elements of Phyſick, p. 285.

(t) Biblioth. Anatom. vol. p. . but the quantities of the ſimples are not here mentioned.

glaſs of a decoction of ſmallage in claret, with a ſmall quantity of ſena and chryſtal mineral, muſt alſo be taken in a morning. The decoction and powder muſt be uſed alternately, and he recommends the dropping of ſpirit of ſalt into the decoction.

CHAP.

CHAP. IX.

How to prevent the return of a Dropsy.

HAVING now gone through all the possible ways, whereby the water of a Dropsy may be discharged, I come next to speak of the second indication of its cure, viz. how to prevent its returning again.

In all manner of diseases, relapses are dangerous; but if a Dropsy returns, when it has been once cured, if we may believe Hippocrates *(u)*, there can be no hopes.

Many persons, it is true, have been cured of Dropsies by evacuation only, as may be seen in several histories related in this treatise; but for want of regularity, and a course of proper medicines, though the water has been carried off, and the patient has been thought out of danger, yet the disorder has returned, and in a short time convinced the sick man of his folly, in not complying with his physician's rules. It is therefore

(u) Coac. Prænot. sect. 2. p. 191.

therefore doubtleſs extremely neceſſary, for fear of ſuch accidents, to give either while we make evacuation, or immediately after, ſuch alterative medicines, as may help to reſtore the tone of the weakened ſolids, may heal the breach of the lymphatics, invigorate the blood, remove obſtructions and viſcidities; and, in ſhort, may bring the body to a ſound and healthful ſtate again.

By a right uſe of the non-naturals.

A right uſe of the non-naturals, as they are called, is of the utmoſt ſervice in all chronical diſorders; and therefore, in the Dropſy, temperance as we have already obſerved (*x*), is abſolutely neceſſary, let the cauſe be what it will. Reſt, thirſt, and faſting, according to Celſus, eaſily cure a Dropſy at the beginning; and the ſame author ſays, that walking much, running, frictions, and ſweating, are adviſeable in every kind of this diſtemper. We have alſo made it appear, in the place above quoted, how careful we ought to be in obſerving the proper times for ſleeping and waking, as alſo for changing the erect and horizontal poſition of our bodies.

Temperance.

Dr.

(*x*) P. 126.

Air.

Dr. Willis obſerves, that thoſe people who live in fenny places, and upon the coaſt, are ſubject to Dropſies, from the air being too much loaded with noxious vapours; and alſo that they are eaſily cured without medicines, by only removing into a hilly country, and into ſuch places as are more open to the ſun. Dr. Barry, in his Treatiſe of Conſumptions, aſſures us, that it is evident, from obſervations made on hydropical perſons, that they receive frequently a conſiderable addition to their weight in a moiſt air, from the water imbibed through the pores of the ſkin. Now, if theſe gentlemens obſervations are true, we need nothing more to ſhew us, how careful we ought to be in chuſing a dry, light air, for all ſuch as are ſubject to dropſical diſorders.

A moiſt air.

In the beginning of all kinds of Dropſies, while the load of water is not too great, nor the veſſels too much diſtended, exerciſe of all ſorts will be found as ſerviceable in this, as in other chronical diſeaſes. Hippocrates *(y)* ſays, that dropſical perſons ſhould labour till they ſweat; from whence H. Mercurialis (*z*) is of opinion, that Theodorus Priſcianus

Exerciſe.

(*y*) Lib. 5. Epidem. (*z*) De Arte Gymnaſt. p. 316.

Priſcianus drew this concluſion, that dropſical perſons may probably be cured by conſtant labour, and the continual ſhocks which proceed from exerciſe. C. Aurelianus, after tapping, adviſes to go to ſea; and if this does not do, then to take hellebore: and Celſus ſays, that when the water is drawn off by wounds in the legs, the body ſhould be ſhaked by geſtation; and that then, exerciſe and food ſhould be increaſed till the recovery is compleated. The antients had ſo great an opinion of all kinds of exerciſe, that Hippocrates *(a)* declares, no man that eats can be in health unleſs he labours. In this diſtemper you will find them recommending wreſtling, vociferation, going to ſea, being carried on men's ſhoulders, in a coach, on horſeback, &c. as may be ſeen in that elegant Treatiſe of Mercurialis above quoted.

The food of dropſical perſons ſhould be of a middle ſort, not too hard of digeſtion according to C. Celſus. Dr. Strother (*b*), in his Eſſay of Health, very juſtly obſerves, that the diet ſhould be different, in this as well as other diſorders, according to the nature of the diſtemper. If the blood be Diet.

(*a*) De Diæt. lib. 1. Aphor. 5. (*b*) P. 67, &c.

too thick, the food ſhould be attenuating, diluting, &c. but if it is too thin, it ſhould then be more drying, abſorbing, &c. Al. Trallian is very particular about the diet of dropſical perſons, and the way of treating ſuch when in a fever.

Drink.

The drink in a Dropſy muſt only be ſufficient to preſerve life, and that ſuch as will eaſily paſs off by urine. Dr. Sydenham, who ſuppoſed all Dropſies were owing to the blood's being too thin, ſtrictly forbids all ſmall liquors in this diſeaſe, and allows of nothing but wine or ſtrong ale, after the patient has been purged. Small and cooling liquors, continues he *(c)*, though they are agreeable to the palate, only breed phlegm, and add to the maſs of water: on the other hand, ſtrong liquors, ſo they are not diſtilled ſpirits, ſo much promote health, that by them alone, it has ſometimes, when loſt, been recovered. The Arabians, I own, ſtrictly forbid ſmall liquors in a Dropſy; and Avicenna (*d*) would not let a dropſical perſon ſo much as ſee water: yet, notwithſtanding what is here ſaid, ſpring-water, and other ſmall liquors, are many times more

Strong liquors.

(*c*) Op. p. 467. (*d*) River. Med. Prax. p. 205.

more ſerviceable in a Dropſy, than ſtrong ones; they more eaſily paſs off by urine; and, where the diſtemper proceeds from drinking hot ſpirituous liquors, muſt be the moſt adviſeable. If a Dropſy proceeds from a hot intemperies of the liver, it may be cured by drinking ſpring-water, ſays J. Foreſtus (*e*). Fernelius aſſures us, that where the age is not too great, and the ſtomach good, he would chooſe to give ſpring-water, rather than wine, in a Dropſy; for he (*f*) ſays, it more readily takes away the cauſe of thirſt, and does not any more than wine increaſe the watery humours. After the water of an Aſcites has been drawn off by wounds in the legs, for two or three days the patient, according to Celſus, ſhould drink water and ſweet wine interchangeably. The uſe of cold water is commonly forbid in a Dropſy, yet the Spaw is famous for curing that diſtemper, many perſons being yearly recovered by it, when drank upon the ſpot; and, in London, ſpaw-water, ſays Sir Richard Blackmore (*g*), cured an Anaſarca, when all other medicines had proved ineffectual. The patient began with half a pint

Spring-water.

Spaw-water.

(*e*) Obſ. 27. p. 238. (*f*) Conſil. p. 1107.
(*g*) On the Dropſy, p. 47, &c.

pint in a day, and by degrees increaſed the doſe, till he came to a whole flaſk. I know a perſon, ſays Mr. Boyle (*h*), of great quality, who in a caſe complicated with a Dropſy to a great degree, being thought incurable by her phyſician, ſurpriſingly recovered by drinking the waters of Tunbridge. Whether the waters of Bath or Briſtol are more judiciouſly preſcribed in this diſorder, may be doubted by ſome perſons; but Dr. Winter, thus abſolutely (*i*) puts an end to the diſpute. If a jaundice is joined with the Dropſy, the Bath-waters are preferable; but where diuretic and drying medicines are only required, the Briſtol-waters do the moſt ſervice, according to this gentleman.

By alterative medicines.

The alterative medicines, which by experience have been found moſt ſerviceable in a Dropſy, are chiefly had from the vegetable and mineral kingdom. The former comprehends all bitters, ſpicy, aromatic, pungent, and drying medicines; and the latter all ſuch as remove obſtructions, viſcidities of the blood, &c.

Bitters.

There are no bitters, eſpecially of the aromatic kind, but what do great ſervice in

(*h*) Works, abr. per Shaw, vol. 1. p. 98.
(*i*) Cyclus Metaſyner. p. 43.

in all manner of Dropſies. Their names are ſo well known, and their properties ſo frequently enlarged upon by authors, that I ſhall only mention two or three of them. A decoction of horehound in ſmiths-water is of good advantage in all kind of Dropſies (*k*). Horehound.

There are few chronical diſtempers where wormwood is not of advantage, and eſpecially if the ſtomach is affected, as it generally is in almoſt all kinds of Dropſies. Dr. Micheal cured ſeveral of this diſeaſe by an eſſence of it dropped into their drink: Matthiolus uſed the conſerve, for the moſt part, with ſucceſs; and Eraſtus ſays, there are few ſimples better than wormwood in dropſical diſorders. The Roman wormwood is by many preferred to the common ſort, as being a more pleaſant bitter; but the latter is equally, if not more powerful, than the former. Wormwood.

The cortex peruvianus, china china, quinquina, pulvis patrum, Jeſuit's-bark (*l*), or as it is commonly called, as ſuperior to all Jeſuit's-bark.

(*k*) A. Pitcairn's Elem. Phyſ. p. 286. (*l*) Cardinal de Lugo firſt brought it into France in 1650, and was a Jeſuit; whence it was called the Jeſuit's-Bark. Dictionar. de Commerce.

other, THE BARK, is one of the moſt uſeful and beneficial medicines that ever was diſcovered. It is now almoſt a century ſince it was firſt brought into Europe. As we were at firſt entirely unacquainted with its nature, ſo it was then often given at improper times; and therefore had entirely been diſcharged the ſhops, had not Dr. Moreton, and other ingenious phyſicians, ſtood up in the uſe and defence of it (*m*).

Mr. Quincy has made a philoſophical enquiry into the nature, and has endeavoured to explain ſome of the properties, of this incomparable medicine. Whether his or any other account of it is ſufficient to ſatisfy the curious, I ſhall not at preſent take upon me to enquire; but ſhall rather enumerate ſome of the many wonderful effects it has upon human bodies, as well in the Dropſy as other diſtempers.

The fever in 1728.

After the laſt epidemical fever which began at Kidderminſter in 1728, and ſoon after ſpread not only over Great-Britain but all Europe, more people died dropſical in three years, than did perhaps in twenty or thirty

(*m*) The uſe of it was quite laid aſide in France, till Dr. Talbot, in 1706, brought it once more into reputation. Shaw's Pharmac. Edinburg.

thirty before. As the bark was more uſed now, than at any time ſince it firſt came into Europe, not only the vulgar but ſeveral eminent phyſicians began to ſuſpect and condemn it. Dr. Strother would have us believe there was little or none good in England at this time; and that it was all either mixed with other barks, or had loſt its ſpecific properties by being too long kept: but I am of opinion, we never had better than at this time; that the fault was not in the medicine, but in the preſcriber: and that never more perſons received benefit from any one ſimple, in any period of time, though many it muſt be allowed did at this time die of all kind of Dropſies, eſpecially the Anaſarca.

Before that fever came among us, we had a very unwholeſome conſtitution of the air, for a long time together. The wind was conſtantly in the eaſt for many months; we had a very wet March, and the air was as cold in May as in December. The fruits of the earth were by theſe means gathered in very ſmall quantities, and afforded but little nouriſhment, and loaded the body with crude and indigeſted humours. The pores of the ſkin having been a long time thus obſtructed, the blood and other juices be-

came viſcid and ſizy. The nerves were generally affected; the pulſe low, urine pale, tongue dry, and all the other ſymptoms, which ariſe from a blood over loaded with morbific matter. A nauſea, or conſtant inclination to vomit, diarrhæa and other fluxes, attended with faintneſs and lowneſs of ſpirits, were the general complaints. The blood was generally thick, and as florid as if it had been taken from an artery; yet bleeding ſeldom gave relief: it always brought on great weakneſs, increaſed the lowneſs of ſpirits, and generally did more harm than good. Hot medicines, ſuch as the theriaca, rad. ſerp. virg. &c. were always deſtructive to thoſe who took them. Diluting plentifully with ſmall camomile-tea, ſack-whey, &c. with good quantities of ſp. C. C. per ſe, Riverius's mixture with ſal. abſinth. ſucc. limon. & aq. cinam. ten. repeated every ſix or eight hours, after gentle purges and vomits, almoſt conſtantly gave relief, and brought it to a regular intermiſſion; for it was of this kind from the beginning. Many perſons found ſome ſymptoms of a fever one day, and then continued well for two or three, and ſometimes longer, before it made a ſecond viſit. During this interval, if the party

party took any freſh cold, he was almoſt ſure to miſcarry, at leaſt to be ſeized with great violence. As ſuch perſons as were moſt expoſed to the inclemencies of the air and weather, were much greater ſufferers than thoſe who lived at eaſe, and fed upon the beſt kind of food in cities and great towns, this frequently was the caſe. The ſecond ſeizure being generally thus violent, the bark was crowded in upon the firſt remiſſion, when perhaps the fever ſtill continued, and the urine had little or no ſediment. By this haſty procedure, the feveriſh matter was either thrown upon ſome of the more noble parts, and ſo death was the immediate conſequence; or elſe, being only pent up in the veſſels of circulation, it ſoon appeared in a tumour of ſome kind or other, and for the moſt part dropſical. This being the caſe, the conſiderate preſcriber found it neceſſary to wait for a better intermiſſion; to purge ſeveral times before he gave the bark; to give rhubarb, ſalt of ſteel, æthiops mineral, cinnabar, and other purging and deobſtruent medicines along with it; and laſtly, to call in aromatics, and volatiles of all kinds to his aſſiſtance. By this means the bark at length recovered its loſt reputation,

tion, and ſaved the lives of many thouſands. For my own part, as this was my way of treating this fever, from the time it firſt came among us; ſo, I thank God, few perſons died under my hands, where I was called in at the beginning of the illneſs. But to return.——

The bark is one of the beſt ſtomachic alterative medicines in the whole Materia Medica. It is almoſt as infallible in curing hæmorrhages from internal cauſes, as in ſtopping intermitting fevers, and yet at the ſame time, it promotes the menſes; for it attenuates more powerfully than ſteel, but does not raiſe the pulſe near ſo much *(n)*. After any large evacuations, it is one of the greateſt and moſt noble cordials in the world: it is of excellent uſe in all nervous diſorders, convulſive, hyſteric and hypochondrical; and is often ſerviceable in throwing off a gouty humour to the extreme parts; nay, when joined with ſteel, it has procured a regular fit, when all other medicines have proved unſucceſsful *(o)*. Of late it has been found as great a ſpecific in ſtopping mortifications from internal cauſes,

(n) Friend's Emmenalog. p. 156. *(o)* Cheney's Engl. Malad. p. 144.

cauſes, as in any of the foregoing diſorders; I never yet knew it fail, though I have had frequent opportunities of trying it, and very lately in an old man eighty-three years of age; where, upon taking it, the mortified part ſeparated from the ſound, the foot dropped off at the ankle, and though the bones are foul above the joint, the fleſh looks well; and if he would have ſuffered the limb to have been cut off, I doubt not but the cure had been compleated by this time, it being near four months ſince the mortification firſt began.

A gentleman had been twice tapped for a Dropſy of the abdomen, which as often returned again. At laſt he took a drachm of the Jeſuit's-bark every day, for ſix weeks together, when he began to make water freely, and ſo recovered perfectly *(p)*.

M. Liſter *(q)* cured a man of a Dropſy, which came from an intermitting fever, with this medicine;

R. Cort. peruv. a ℥ſs. ad ℥j. ſal. gem. vel ſal. abſinth. ℥j. elater. a gr. 2 ad ℥ſs. m. f. bolus.

From

(p) S. Dwight de Hydrope. *(q)* De Hydrop. Conſ. 7.

From what has been ſaid, it is evident this moſt admirable medicine is as neceſſary in a Dropſy as in many other diſorders; that it may, and in this caſe ought to be, given with deobſtruents; and that it ſtill retains its ſpecific properties, when given with the ſtrongeſt cathartics.

Acrid, pungent, and ſpicy medicines.

All acrid, pungent, and ſpicy medicines invigorate the blood, brace up the ſolids, attenuate the juices when viſcid and ſizy; and by this means frequently become moſt powerful diuretics. The beſt are the ſeeds of muſtard and wild carrot; the berries of bay and juniper, and the roots of garlick and horſe-raddiſh; pepper, &c.

Muſtard.

R. Sem. ſinap. integr. ℥iv. ponatur in lagen. vitrea cum alæ ℔ij. poſt 3 dies depromatur ad uſum.

R. Sem. ſinap. contuſ. ℥j. coq. in ſeri lact. ℔iiij. parum. Colatura bibatur ad libitum.

R. Sem. ſinap. pulv. ℥ſs. conſ. abſinth. Rom. ʒij. ſem. dauci. pulv. ʒii. cum ſ. q. ſyrup. e 5. rad. f. electuar.

Juniper-berries.

R. Bacc. junip. probe contuſ. & in ſaccul. ligat. ℥iv. coq. in vin. canar. ℔iiij. ad ℔ij. cola. Doſis ℥iv. ter in die.

All

All theſe are good medicines. The laſt is from Dr. Fuller, who tells us, that Rulandus uſed to boil four handfuls of juniper-berries in two quarts of whey, till a third part was conſumed; and that he gave it for common drink in an Aſcites. Riverius and Etmuller aſſure us, that they alſo frequently gave it with ſucceſs after the following manner.

R. Bacc. junip. contuſ. m. jjj. vin. generoſ. q. ſ. Coq. ad medias, & dentur ℥jv. *(r)* mane ſingulis diebus, & corpus optime tegatur.

Matthiolus cured ſeveral perſons of this diſeaſe, with a lixivium made of the aſhes of this ſhrub in white wine, which he gave to four or five ounces for a doſe. This, he ſays, is a powerful diuretic; and from him Etmuller commends the rob juniperi & malvaticum juniperinum, and at the ſame time aſſures us, they are the beſt kind of diuretics *(s)*.

Many pompous and coſtly medicines may be formed from the ſimples above-named; ſuch are the decoct. allii. decoct. diureticum, decoct.

(r) Muſitanus ſays, ℥vj. Trut. Med. p. 692.

(s) Etmuller, Op. Med. vol. 1. p. 300.

decoct. juniperi ſecundum in Fuller's Pharmacop. &c.

Of diet-drink.

Diet-drinks made of theſe ingredients are much commended by many authors; but I never preſcribe any for the following reaſons: 1ſt, Ale is but a very indifferent, or rather a very improper, vehicle to take medicines in, eſpecially in a Dropſy, where the juices are always too viſcid: 2d, Whatever quality of any ſimple is imparted to ale, it may be better obtained from an infuſion or decoction of it in wine or water, by which means the medicine muſt be more agreeable both to the ſight and palate of the patient, and will be leſs in quantity: 3d, Minerals, as antimony, mercury, iron, &c. may, with far greater advantage to the patient, be given in a ſolid form, as pills, bolus, or electuary; becauſe they are ſo much heavier than the menſtruum: 4th, Thoſe perſons that are not uſed to drink ale in a morning, can ill diſpenſe with it when faſting; for it will certainly pall the appetite, and cauſe dulneſs and heavineſs all day: 5th, A conſtant courſe of purging phyſick for a month or ſix weeks together, without confinement, or a regular way of living, is in my opinion a very random kind of preſcription. It is next to impoſſible,

poſſible, in an air ſo very changeable as ours is, but in ſo long a time as ſix weeks, a perſon muſt take cold. By this means a diſtemper muſt be ſo far from being cured, that it muſt frequently be fixed, and put out of the power of medicines to remove. I have often met with ſevere cholics and inflammations of the bowels from this cauſe. But for tipplers, and ſuch as will take medicines in no other form, the following medicines may be agreeable: Fuller's cereviſiæ dauci & arthritica; cereviſ. Hydropica in the Pharmac. Pauperum, cereviſ. diuretica in Bates, &c.

All the aromatic woods, as guaiacum, ſaſſafras, ſarſaparilla, &c. promote inſenſible perſpiration, cauſe ſweat, increaſe the urine, &c. and, when boiled in aq. calcis, become very great driers, and are therefore very proper in all dropſical diſorders. Forms may be met with in every Diſpenſatory. The decoct. e lign. and the elect. e ſarſa in Fuller; the balſ. polychreſt. in the London Diſpenſatory; are all very good medicines, &c. Woods.

Moſt of the minerals uſed in medicine are powerful deobſtruents, and act very ſafely and gently, before they are too much altered by the chemiſt's furnace. There is Minerals beſt given without chemical preparation.

no

no preparation of them, which is not rougher than the ſimples themſelves; and the hazard we run in taking them, is always proportioned to the quickneſs of their operation; neither is any diſorder to be cured by any of them, which will not yield to the ſimples themſelves. For this reaſon, many of the beſt phyſicians (*t*) have conſtantly given them without any chemical analyſis. Mercury, ſteel, antimony, &c. often prove more ſucceſsful, as they are taken out of the earth, than when they have been tortured by the laboratory.

Crude mercury.

Belloſte (*u*) has abundantly demonſtrated, not from theory but many years experience, that crude mercury is not only a ſafe but powerful medicine; and is of opinion, that it deſerves the name of a panacæa, or univerſal medicine, better than any of thoſe which have been publiſhed under that name. He gives us hiſtories of cures performed by it in an inveterate pox, ſchirrous and ſcrophulous tumors, the cholic, ſtone and gravel; in gouty pains, and all cutaneous eruptions; and aſſures us, that it may very ſafely be given in all nervous diſorders, as apoplexies, palſies,

(*t*) See Sir Rich. Blackmore on the Spleen, p. 74, &c.
(*u*) Hoſpital Surg. vol. 2.

palſies, &c. There are not many medicines to be met with among the moſt ſanguine of the chemic writers, to which ſo many noble and different qualities are aſſigned; and would it always prove ſucceſsful in the foregoing caſes, mankind would not ſtand in need of any farther aſſiſtance. Whether it may or ought to be given in ſuch large quantities, and for ſo long a time together, as a late whimſical (*x*) writer, has made the world believe, is what I ſhall not here conſider, the ſubject having been already ſo well treated of by an experienced phyſician *(y)*, a gentleman and a good ſcholar. But, when mixed with ſome gentle cathartic, it generally anſwers our expectation. What Belloſte joined with it I know not, but Turner (*z*) gives it with pill. ruff. or pill. coch. in ſmall quantities, night and morning for many days together. Mr. Morgan mixes rhubarb and cochineal with it, and when given in the ſame manner, ſays it commonly proves an effectual, ſafe, and benign diuretic (*a*).

(*x*) T. Dover's Antient Phyſ. laſt Legacy. (*y*) Dr. Turner's Anſwer to it. (*z*) Anſwer to Dr. Dover. (*a*) Mechanic. Prac. of Phyſ. p. 279.

Steel.

The filings of ſteel, ground with ſugar-candy to an impalpable powder, have upon trial anſwered beyond expectation, when ſome of the moſt elaborate preparations of it have proved ineffectual (*b*); nay the iron-ſtone itſelf (*c*), though it contains ſo much earth, is a medicine not at all inferior to ſome chemical productions.

What has been ſaid of ſteel and mercury may well be applied to more, if not all the other metals and minerals; ſo that I ſhall only obſerve farther, that when we read the virtues and praiſes of a favourite medicine in a chemic author, we ought to make great allowance for bigotry, and muſt not be ſurprized, if we do not always find it exactly anſwer the character beſtowed upon it.

Mineral water.

When minerals in ſubſtance do not anſwer, there is a natural preparation of them, which far exceeds all that chemiſtry has hitherto been able to invent. Dr. Sydenham is poſitive, when ſteel in ſubſtance does not give relief in hyſteric diſorders, the green-ſickneſs, a ſuppreſſion of the menſes, or any low ſtate of blood, that Chalybeate-waters, drank at the fountain-head, will ſeldom or never

(*b*) See R. Blackmore, on the Spleen, p. 72.
(*c*) See Dr. Sydenham, Op. Med.

never fail us. It is ſurpriſing to obſerve what different effects theſe kind of waters have upon human bodies. Spaw-water is an effectual medicine in a ſuppreſſion of the menſes, and yet nothing more eaſily, or more effectually puts a ſtop to too great a flux of them. I have already proved, that theſe kind of waters are often proper in dropſical diſorders; that thouſands are every year cured by drinking them upon the ſpot; and ſhall only make this one obſervation farther, that they are of excellent uſe in ſtrengthening a decayed and weakened conſtitution, and are therefore a moſt exceeding proper and powerful medicine in preventing a ſecond flux of humours upon any part, when the firſt by art has been carried off or abated.

FINIS.