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Contributors

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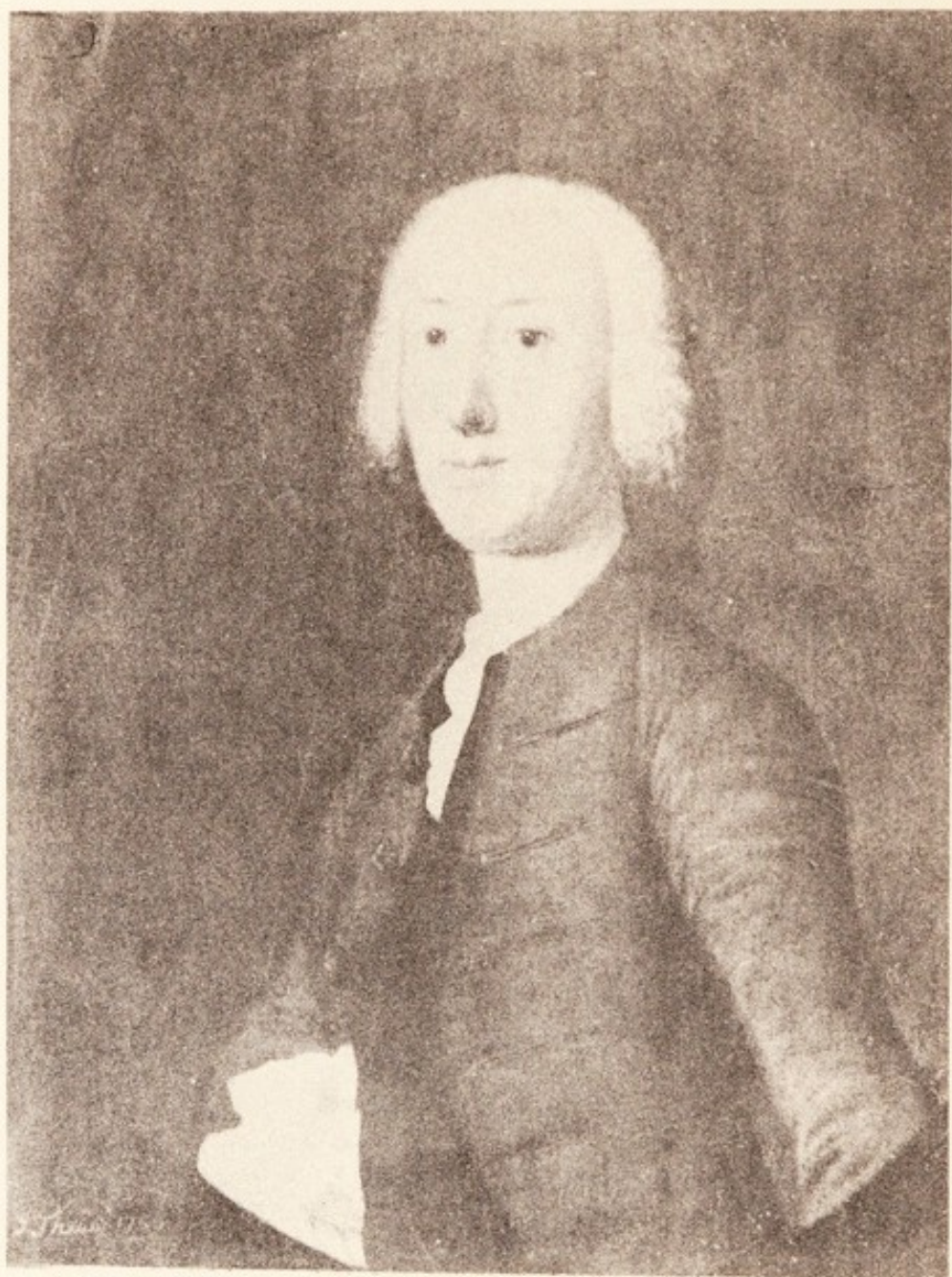


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Dr. Lionel Chalmers

A N
A C C O U N T
O F T H E
W E A T H E R A N D D I S E A S E S
O F
S O U T H - C A R O L I N A .

By LIONEL CHALMERS, M. D.
Of CHARLES-TOWN, SOUTH-CAROLINA.

IN TWO VOLUMES.

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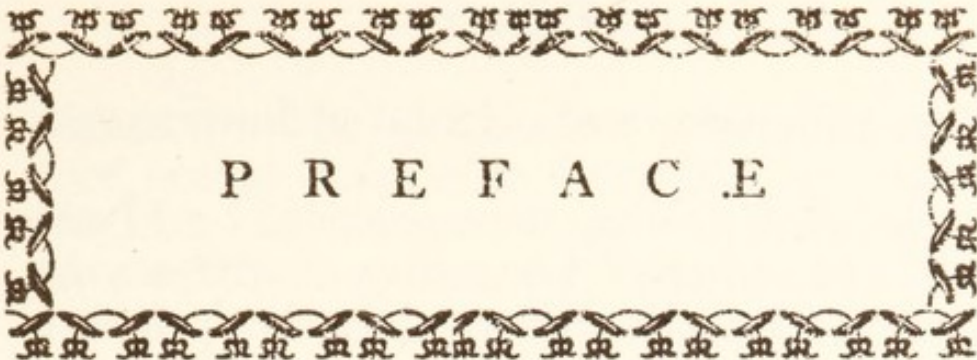
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been made evident.




P R E F A C E

LIONEL CHALMERS

Practitioner of Pediatrics,

1715-1777

 **B**EFORE the American Revolution, this country had produced very little writing dealing directly with pediatrics. Indeed only two papers of that period might be considered as pediatric,⁽¹⁾ the article on "Angina Suffocativa" by Samuel Bard (1771) and that on "Cholera Infantum" by Benjamin Rush (1773). Considering the paucity of pediatric material elsewhere and the space which Lionel Chalmers of Charleston, South Carolina devoted to diseases of children in his chief work, one might perhaps with reason consider him the first pediatrician, or at least, the first practitioner of America to show a decided recorded interest in children.

"An account of the Weather and Diseases of South Carolina" was published in two volumes in London in 1776.⁽²⁾ Fifty odd of its 446 pages are devoted to subjects which are rather strictly pediatric, and these pertinent pages we have lifted from the whole text to make

make this picture of colonial pediatric practice.

Chalmers' life has been recorded by Mumford and others.⁽³⁾ A native Scot^sman, he came to Charleston about 1735, at the age of about twenty, with a medical degree thought to have been obtained at Edinburgh.⁽⁴⁾ In the flourishing provincial capitol competition was rather keen among a number of able physicians, most of whom were likewise Scottish in origin, and Chalmers may have had more time than he desired for observation and reflection. However that situation may have been, his book presents in good, vigorous and clear style the accumulated experience of forty years of practice, combined with the knowledge gained from friendly association with Dr. John Lining, our earliest American physiologist, likewise of Charleston.

Much of Chalmers' pediatric matter deals with therapy, which shows the characteristic vigor of the times. But there are practices offered which in our present day seem rational and useful. The author says that his methods of treatment are advised from the experience of his own long clinical career.

Chalmers was in this period something of an authority on "Fevers," having published in 1768 in London "An Essay on Fevers,"⁽⁵⁾ anticipating the theories of Cullen which were to be held in high regard for many years. Previously he had published a paper on tetanus.⁽⁶⁾ These works were his whole literary medical contribution.

Whether Chalmers qualifies as a pediatrician

trician may be questioned. Certainly children occupied some considerable part of his practice, and his local fame was sufficient to elicit a flattering obituary, even if it be taken with the *grano falis* customary for such encomium. It reads, "... a sound judgment, and a benevolent heart, joined to the Experience obtained in a very extensive Practice for upwards of forty years in this country, rendered him a most valuable member of the community. In the Literary World his Character is very respectable, as the honourable mention made of his Efsay on Fevers, and other Productions, by various medical authors, sufficiently evince; above the narrow circumscribed notions entertained by many of his Brethren, he never affected any mystery in his Practice: he employed the knowledge he had acquired for the good of mankind and has left behind him the name of an affectionate husband and parent, a skilful, humane physician, and a worthy, honest man."⁽¹⁾

JOSEPH LOOR WARING, M. D.

Charleston, S. C. September 4, 1947.

* * *

(1) Levinson, Abraham, *Pioneers of Pediatrics*, Froben Press, N. Y. 1943.

(2) This book was translated into German and reprinted at Stendal, 1792.

- (3) Mumford, J. G. *A Narrative of Medicine in America*, Phila—1903 (Lippincott).
Aldrich, R. C. *Weather Observers and Observations at Charleston, South Carolina, 1670-1871-Year Book City of Charleston*, 1940.
- (4) There is no record of his name at the University.
- (5) David Ramsay's *History of South Carolina* states that this was published in Charlestown in 1767, but this statement has not been verified.
- (6) *Medical Observations and Inquiries by a Society of Physicians in London*—2 vol. Ed. 2. London—W. Johnston 1758.
- (7) *The South Carolina Gazette*, May 12, 1777.

O F T H E
D I S O R D E R S

T O W H I C H

C H I L D R E N are liable at this Season.

THOUGH hot weather weakens us, and as a remote cause, renders us more susceptible of disorders, than we are in a cooler season, yet, of itself, it cannot properly be said to occasion the diseases that appear in the summer, notwithstanding the fluids may, perhaps, contract some degree of acrimony, and the solids also as being relaxed, become more irritable. Such a constitution, undoubtedly, puts health on a more precarious footing, and it is also common with adults to live at large as before: infants likewise are oftentimes carried abroad indiscreetly; and the teeth commonly begin to shoot, even in very young children, at the setting in of that season; the pain of which alone, is sufficient to bring on *spasms* in these delicate and very irritable subjects, now become more sensible of irksome impressions. Children a little more advanced in age, are so impatient of heat, that, if possible, they will lie uncovered at night; and are ungovernable in the use of exercise abroad throughout the day; so that they are, in a great measure, exposed to every extreme both of the weather and fatigue. From the time *these* young subjects begin to drink or eat things that are cold, and feed more at large, they are more or less troubled with worms; nor do weakly grown people escape *them*. But though
these

these reptiles give little disturbance unless they be very numerous, so long as the child is in full health, it will be otherwise in disease, when *that* fails, and their usual supplies of food fall short; for then they will prey on the bowels, to make up for any deficiency that happens the other way. Besides, the worms are made more restless and uneasy, by the greater heat they endure in fevers; whence not only the present disorder may be exasperated, but other complaints also are likely to be induced, by the irritations which these animals excite.

Our digestion being at this time impaired, acidity very generally abounds in the first passages, more especially in infants and weakly adults. From *this* cause, the former are liable to frequent griping green stools; or should *these* discharges be pale and curdled when they first come away, they will presently change to green in the open air. This *acrimonious humour*, by stimulating the stomach and intestines, often promotes the internal secretions in a precipitous manner; so that the hollow *viscera* are made to discharge their extravasated contents frequently, both upwards and downwards, and in an enormous way as to quantity, whereby those tender subjects are sometimes quickly deprived of life. Hence large serous or purely *lymphatic* stools are common in the fevers of children. And unless the *acid acrimony*, that usually predominates at such times, be either corrected or expelled, the fever will only remit, and *convulsions*, a *dysentery* or the *thrush* often ensuing, their recovery will then be very doubtful*.

It

* Were it duly considered, how much the health and even the life of a sucking infant, depends on keeping him free of a super-

It is of the utmost consequence to their welfare, that infants should early be taught to feed, lest they suffer when it becomes necessary to keep the breast from them, which happens more frequently than most people are aware. And as before weaning they seldom are troubled with any other sort of acrimony than an acid one, the best diet for them is broth of different strength, according to the age and condition of the child. *This* may be made with any kind of lean meat, excepting pork, in which a few tops of parsley, and some grains of black pepper should be boiled, more especially for those who are troubled with flatulency: but it were better not to thicken it at all, though a little salt may be added. On *this* they would willingly feed from the first, if their tastes had not been vitiated by the

superabounding acidity, and that he should not become habitually liable to this acrimony, the greatest care ought to be taken, to prevent or remove it as soon as it is generated in a great degree. For the constant or repeated pain, and flatulent distention it occasions, so weaken the bowels, and nervous system, that they never may regain proper strength afterward: and consequently unless an exact diet is observed, the person shall be obnoxious to the same sort of sharp humour so long as he lives, which may distress him in various ways: so that he becomes a valetudinarian from errors which were committed, before he could be an accessory to them. Beside several other bad effects of that acrimony which shall be mentioned in this essay, it not only gives a pungency to, but likewise thickens the fluids; which disposes them to form obstructions, particularly in the glandular parts. The thrush, painful and often strumous swellings below the ears and round the throat; rickety enlargements of the joints, amongst other ill consequences of which, the knees are sometimes so weakened, that the weight of the body makes them bend more or less inwards, or perhaps the contrary way, as well as many other disorders arise from this as a cause; at least the subjects of these complaints I have observed, to have been in a remarkable manner liable to an acetous acrimony, before and after those effects were produced.

sugar

sugar which is commonly put in whatever is given them. But these sweetened sops, the flour with which their food is usually made, together with the breast milk, are the causes whence they suffer in a greater degree from acidity, than they would do were broth substituted in the place of every other nourishment, excepting the milk they suck. I do not however confine them altogether to the broth of flesh meats; but, by way of change, they are allowed the liquor of stewed *whitings*, or of any other fish that is not oily: of which young children are generally fond. And when they are eight or ten months old, their broth may be a little thickened with the crumb of bread; and the latter may likewise be mixed with either the clear gravy of roasted lean meat, finely minced, chicken or veal once in the day. Neither should a sip of sweet wine (such as that of *Malaga* or *Canary*) or even of some distilled spirit well diluted with water, be denied them once or twice daily, more especially if they be weakly or much depressed by the heat of the weather.

It seems a prevailing mistake, that children ought to be weaned when they are nine or ten months old, whether they be strong or weakly. For having most of their teeth still to cut, and being, oftentimes, much disordered thereby, it *then* becomes necessary to administer medicines which are not always agreeable to the taste; so that from *this* time, some of them are so suspicious of whatever is attempted to be given, that they will not suffer a cup or spoon to touch their lips. And thus I have known many of them to be lost, when the disease could not be soon removed; for they could not be made to suck again, though their lives might have been saved by it. It is therefore safest, not to wean infants before they have all or most of their teeth,

teeth, that they may have somewhat to trust to in case of sickness; for they will take the nipple when all other nourishment is refused. The above rules have been followed in my own family, and they were also recommended to others with success, who, as well as myself, had lost several children by too early weaning and adhering to the usual way of dieting them. And even were they ever so strong and healthy, they should never be weaned till the month of October, when the weather begins to be cool and bracing; for during the relaxing heat of the summer, they are very generally, liable to diseases in this climate.

The preposterous manner of feeding infants with *pap*, and other such indigestible food nauseously sweetened, is highly censurable at all times. But *these* and even the breast itself, should be wholly abstained from in the above complaints, till the bowels are freed of the sharp humours. For as these all turn sour, and the milk curdles immediately in the stomach, the symptoms will probably be continued, if not aggravated by those means, in defiance of medicine. Certainly no man in his senses, would advise that milk should be given even to a grown person, who already had either a cholick, vomiting, purging or fever, from an abounding acid: but, let us even grant, that the redundant *acrimony* we speak of was removed, yet it will be generated anew, either by the milk lying too long in the stomach, its being soured by the great heat within during a fever, or both. The diet, therefore, should at least be of a mixed kind; as broth sometimes, and again the breast milk, that the former may in some degree correct the acrescent quality of the other. But still, it will be best, not to allow even of this mixture of food, before the
first

first passages are nearly cleared of the superabounding *acrimonious humour*.

When the stools are either pale, frothy and curdled, or of a green colour and not very thin and watery, a vomit ought to be given, if nothing forbids, and afterwards *rhubarb* or *magnesia*, or both should be administered in order to free the bowels the other way, of *this* offending matter. But then one drop of oil of fennel or that of mint should be added to the medicines which are given, more especially if the bowels had been weakened by repeated over-distentions from flatulency. When *rhubarb* and *magnesia* are slow in their operation, I commonly add a little *sal catharticum amarum* to the mixture, preferably to manna: and sometimes a few drops of tincture of Ipecacuanha, or one grain of its powder is also joined with the other ingredients. For this is not only a good diaphoretick, but an excellent *tonick*, when given in small doses, or so as even to cause a puke or two, should this be necessary. The mixture likewise should be so proportioned, when the design is to purge a child, that one or two tea-spoonfuls of it may be given every hour, till the stools are of a yellow colour; and then the medicine may be laid aside, for other discharges will follow. The composition therefore should not exceed one ounce or ten drachms, for an infant twelve months old; and it ought to be still less, for one that is younger, to whom one tea-spoonful will be sufficient for a dose, to be given as above. I here suppose that the several articles just now mentioned, are mixed with water.

If the stools are large and watery, every thing that is purgative must be abstained from; but *rhubarb*, either toasted or plain, may be given in small doses as a *stiptick*, together with *crabs eyes*

or calcined *hartshorn*, made as warm with *spiritus volatiles oleosus*, oil of *cinamon* or *mint*, as the child can bear it; for an exceedingly great loss of strength presently ensues from this disorder. The vehicle for these medicines, ought to be a decoction of cinamon, or of any gently aultere vegetable, that is not nauseous to the taste, in order to constringe the over-dilated and weak vessels within, that a further wasteful effusion of their contents may be prevented. It will also be necessary, to bathe the patient's belly now and then, with spirit of *lavender*, *Hungary water*, or a solution of the *aromatick* oils made in spirit of wine; covering the part afterward, with a flannel wrung out of the same spirit made warm, which, by its stimulating and *antispasmodic* virtue, may give a spring, to the relaxed vessels within, as well as to those of the whole system; no matter if the outer skin should be a little inflamed thereby. The same end will also be much promoted, by blistering the legs, and even the abdomen, or the stomach, should this be necessary. Hot bricks should, likewise, be laid at a proper distance from the feet and legs, in order to support a proper warmth in these parts, which most commonly are cold or have but little heat from the knees downwards; or the warmth will, at least, be relatively small thereabouts, as well as in the arms and hands. On such occasions whole pepper and other agreeable aromaticks ought to be boiled with the broth they take; and were a little finely powdered cinamon mixed with whatever is given them, it would still be better; for that fragrant spice, hath much better effects when given in substance, than in decoction or infusion. The patient's drink should be made with aromatick and stiptick vegetables boiled with water; to which a little distilled spirit ought now and then to be added.

In

In all diseases that are accompanied with such tumultuous secretions in the Lower viscera, and consequently a partial or languid circulation in the outward small vessels, cantharides applied first to one part and again to another, are of eminent service. But I never ventured to give a vomit, when the stools were large and serous; though probably, this diffidence arose from a wrong judgment, rather than because the thing itself was improper. But when they are large and nearly of the colour and consistence of whey or thin gruel, and without any smell of excrement, *ipecacuanba* generally has good effects so it be given early; for here acidity seems to prevail in a high degree, the *biliary* ducts being constricted by the irritations of that acrimony, whilst the other secretions in the lower viscera, are proceeding in an unnaturally promiscuous manner.

On such and some other occasions, the urine often is pale as milk and water for some days; more especially in boys under seven years of age. *This* is thought to be a sign of worms: but with me it is a proof rather of an abundant acid, tho' I do not say it may not sometimes be of the same colour from the other cause.

If a vomit is thought necessary in the latter disorder, it should be given before the patient is much weakened, or rather at the beginning of the disease; for scarcely any complaint deprives one sooner of his strength. And so precipitately do the humours run off downwards, that the superior parts are as it were deprived of their natural supplies; whence and because a spasm acts more strongly on some series of vessels than on others, an unquenchable thirst attends, and points out the necessity, of giving the patient drink frequently, but by small quantities at a time. On the whole,
if

if we except convulsions, I know no distemper that sooner exhausts the patient, than a fever attended with such colliquative discharges. For the person is equally drained of his juices, as if so much blood was taken away in the same space of time; and indeed they are only the thinner parts thereof, that escape the over-dilated and lax vessels within. And because those evacuations should be considered as hemorrhages, (for indeed they are ferous ones) I have ordered temporary ligatures to be made on the upper parts of the arms and thighs with advantage as was thought. But this should never be done when the patient is greatly weakened. After a vomit hath been given in the latter sort of *diarrhœa*, vesicatories and the same regimen will be required, as if the stools were watery and of a different colour. And tho' the pulse may not be very quick, nay sometimes it will be rather slow in both disorders, yet *they* are full of danger, as may presently be perceived, from the sudden and great loss of strength, the dullness of the eyes, inattentiveness, frequent sighings, slow respiration, clammy coldness of the extreme parts, and every other sign of excessive dejection in the vital and animal functions. For which reason, as soon as the purging is checked, and the pulse becomes slow, (supposing it were quick before) the hands and feet having also recovered a proper warmth, I order a suitable quantity of *Peruvian* bark, *aromaticks* and *stipticks* to be boiled with water, to which some drops of oil of cinamon and *sal volatile oleosum* being afterward added, one or more tea-spoonfuls of the mixture are directed to be given every hour, in order to brace the constitution. Sometimes in lieu of *Peruvian* bark, the inner bark of *magnolia altissima* is used; but whether one or the other of these is

given, more or less of the medicine should be administered daily, till the patient hath regained full strength; and till this point is attained, the same spicy cordial and stiptick *regimen* will be required, as was recommended in the other ferous diarrhœa, though the application of it needs not now be so closely pursued as it was during the illness.

A constant vomiting, is a dangerous attendant at the time of cutting teeth; more especially when many of them are advancing, and they lie so deep, that we cannot tell where to open the *gum* to make way for them. I have known many to be lost from this cause; though the appetite continued so voracious, almost, to the last, that the patients immediately craved more nourishment, after having thrown up what they had taken just before. Such disorders have too often disappointed me; for as they may continue several weeks, and the patients receive but little benefit from whatever is given, *they* lose strength daily, and die at last, as it were of *mere inanition*. Some however, were recovered, by the occasional use of *alkaline* powders, opiates and *diaphoreticks*, as they severally seemed necessary. And when the teeth were pretty well advanced, they were set at liberty, by making an incision quite through the gum.

Of WORMS in CHILDREN.

ALL weakly People may be liable to worms, in particular those of the round sort; but they are so common to young subjects, that from one to twelve or fourteen years of age, scarcely one person is free of them. Sometimes these reptiles are bred in such numbers, that they presently devour

devour whatever is eaten ; so that the patients appear as starvings, notwithstanding the voracious appetite they have, which can only be satisfied for a small time by the most plentiful meals. Various means have been proposed for destroying worms ; but the best disappoint us at times, and on other occasions, those creatures will come away as it were of their own accord ; or this might happen, after the person had taken some insignificant thing or other, which thenceforward acquires the character of a vermifuge. Whatever strengthens the stomach and intestines, so as to enable them to perform their offices duly, will either prevent or expel worms, and therefore bitters of most kinds are proper for this purpose. Besides, these things being disgustful to those animals, they are made to move downwards in order to avoid the disagreeable taste of them ; when, being at last, entangled amongst the formed excrements in the *colon*, they pass with the next stools. In general, they are discharged in the greatest numbers during fevers in the spring, summer and autumn. Of all the vermifuges I am acquainted with, *lonicera* (called Indian pink here) hath the best effects ; but it must be properly guarded, to prevent a drowsiness, violent pains in the forehead and eyes, and a temporary loss of sight, which often ensue from the use of it. At such times, the eyes lose their lustre, and the pupils seem much dilated ; nay, it affects the nervous system to such a degree, that convulsions, sometimes, supervene, as happened (and they proved mortal, on the same day) to two lusty children in one family, of seven and five years of age, owing to the too free use of that plant, before its properties were fully known to us. The best correctors of it are *serpentaria*, wine, volatiles, aromatics,

ticks, and such other things as excite and support the nervous power.

If a child of five years old be costive in a fever, I usually order one drachm or one and a half of *lonicera* and as much *serpentaria* (both being cut small) to be boiled in half a pint of water, to four ounces; and just before it is taken from the fire, one ounce of *manna* is dissolved in it. To this liquor when strained and cooled, thirty or forty drops of spirit of hartshorn (or sixty of *sal volatile oleosum*) should be added to make a mixture; of which one common spoonful must be given every hour till a loose stool is promoted. But, if the patient hath already a moderate purging, instead of *manna*, twenty or more grains of rhubarb may be boiled with the other ingredients; and afterwards every thing mentioned above must be added to the strained liquor. This composition may be given as the former, till the patient sweats and the stools are changed to yellow, supposing them to have been of a different colour before. But should the fever and diarrhœa still continue, after this medicine hath had its operation, some vegetable stiptick ought to be boiled with the *lonicera* and *serpentaria*; and, afterward a few drops of liquid laudanum and two drachms of crabs-eyes should be mixed with the liquor; of which composition one common spoonful may be given every second hour, or oftener according to the case. The crabs-eyes are intended to neutralize the acidity which often promotes the purging we speak of.

It is very common for parents, to have medicines given against worms, even whilst their children are in health. On these occasions, I now and then order a common spoonful of the former laxative mixture to be given every second or third hour; or so as to continue an easy looseness for a
few

few days. But in the place of *manna*, one drachm or a little more of *sal catharticum* may be used. Sometimes two or three drachms of *lonicera*, and as much *serpentaria*, are infused with a pint of boiling water, of which a small teacupful may be given every second hour, having a little brandy or rum sometimes mixt with it. This manner of using *pink-root* may be continued from day to day, so long as worms come away; and the same infusion may also be given safely in fevers. But if the belly be not loosened by it as it commonly is, the patient should afterward be purged with *rhubarb*; and, if he be free of fever, a few grains of coarsely prepared calomel may be mixt with the *rhubarb*. Another way of administering *lonicera* is, to mix one drachm of its powder, together with an equal quantity of *Ethiops mineral*, twenty grains of *rhubarb* and as many drops of chymical oil of *rue*, *savin* or *wormwood* in a mortar for six doses; one of which is to be given every morning and evening, till all are used. But if these powders do not promote at least, two loose stools daily, a dose of *rhubarb* ought to be given on the fourth morning. Instead of the above powders, twenty grains of *lonicera*, sixteen of *rhubarb*, five or six grains of coarsely prepared *calomel* and four or five drops of either of the above oils are to be well rubbed together in a mortar for two doses; one of which is to be given over night, some hours after supper, and the other early on the following morning fasting; and whilst they are operating the patient should drink weak broth or thin gruel, and be kept warm. These powders ought to be given with a little honey or some sort of syrup. And if by either of these means, worms are made to come away, the former powders may be repeated the next day after taking the *rhubarb*, as the latter likewise

may every third day till no more worms appear, whether alive or in a putrid state; and that they do so will be known, from the stools having the smell of carrion, and being intermixt with sloughs.

The above prescriptions are proper for a child four or five years old. But the proportions of the ingredients must be varied, according to the ages and conditions of different patients. For should they be already much weakened, the pink-root must be used with a sparing hand.*

Lonicera, *rhubarb* and *calomel*, I have found to be very effectual against the *tænia*, which negroes are more particularly liable to: one of whom after taking two strong doses of these ingredients, voided so much of that *complicated animal* by piecemeal in one day, as measured thirty-two feet, when all the different parts of it were put together. And the medicine being repeated, and he continuing to pass more or less of that worm daily for a week in every stool, it is not improbable, that in the whole, it might at first have been sixty feet long. This man had been so tormented, for several months, with gnawing pains sometimes in one, and again in another part of his bowels, as rendered him unserviceable to his master. But some fragments of the *tænia*, which by accident were discovered in his stools, gave the first hint for trying the above powders; eight doses of which cleared him of the

* I thought it proper to speak somewhat fully on the virtues of pink-root or *lonicera*, and the different ways of giving it; but not with the view of adding one useless article to the *materia medica*. For *this* already abounds with such a superfluous medley, that were most of them expunged, neither the patient nor his physician would be losers. My design was to make *this* valuable medicine more known, if possible, than it is at present; for as yet we have nothing of equal efficacy with it as a vermifuge.

worm : and he soon after regained the flesh and strength he had before lost to a great degree.

Next to *Indian pink*, the seeds of *chenopodium* (called Jerusalem oak here) seem most in repute with us against worms ; and indeed, it frequently causes them to come away, in surprisngly great numbers. These seeds being finely powdered, are made into an electuary with honey, of which a table spoonful or more should be given early in the morning, the child being kept without nourishment for three or four hours after ; and the like quantity is also administered two hours after supper. This course is pursued for three days together and repeated occasionally. Though the above are the most prevailing complaints of children at this time, yet some others shall be mentioned in the course of this essay.

OF VOMITINGS and PURGINGS in FEVERS,

VOMITINGS and *Purgings* either of pure or greenish coloured *bile*, are common in the fevers of adults at this season. And from the like redundant secretion of the bile, or a mixture thereof with acidity, together with a great degree of laxity in the vessels within, boys as well as weakly grown persons, sometimes, have large *serous* and bloody or greenish coloured stools, which appear and smell like water, in which bloody putrid flesh had been washed. This *mephitical* scent is perhaps owing, not only to the great heat the fluids have sustained within, but also to the present slowness of the circulation in those parts. For though it

cannot be denied, that the humours tend constantly to putrefaction, and that the above causes dispose them to putrescence, yet one would scarcely impute this very offensive odour to direct putrefaction, however commonly that term may be used in speaking of diseases; for all things being considered, these complaints generally are soon removed, so that they be but properly managed: and provided no relapse happens, the patients regain strength fast, considering the great and debilitating heat of the weather, which operates strongly, in prejudice of those who have been weakened by disorders; and consequently it powerfully opposes the virtues of whatever tonick medicines are given.

The stools sometimes seem to consist merely of pure *lymph* or *serum*, having the colour and nearly the consistence of whey, and the smell of fresh blood. These discharges may be made every hour, or perhaps seldomer; and they are at times so large, that the patient will half fill a chamber-pot at once, though he may not exceed five years of age; so quickly are the humours vented *that way*, and so lax and exceedingly dilated are the vessels in the lower viscera. And, because they seldom are attended with much or indeed any pain, and the fever rarely is high to outward appearance, these disorders may not be so soon taken notice of as they ought; for the sick are equally weakened by them, as if so much blood were lost in the same space of time. The necessity, therefore, for checking them as soon as possible, with cordial and spirituous embrocations applied outwardly, and all other means both external and internal, is very apparent.—To this end, a vomit of *ipecacuanha* should be given on the first appearance of the complaint, provided the patient had not been weakened

weakened by some preceding disease; and afterward we must proceed in the way already proposed, for the watery stools of children. In both these disorders the thirst is insatiable in the intervals between the stools, and more especially when the patients are moved, a murmuring noise may be heard in the bowels, as of water passing through a number of convoluted tubes. It was just now said, that such excessively large stools sometimes attend, when a fever is not to be discovered by an augmented frequency in the pulse. But still *they* increase and abate at times, according to the nature of the fever, that then predominates. For this reason, they commence and decline nearly at the same hours every day or every second day, as a fever should do; without any other evidence of an *apyrexia*, than a coolness of the hands and feet, and an increased heat about the *breast* and *abdomen*. Such disorders, however, should in all respects be treated as intermittents; but with this difference, that a particular regard will be due, to the unnatural laxness of the *abdominal viscera*.

Should the purging still continue after the stools have acquired a proper colour, one or two grains of *alum*, or a few drops of *spirit of vitriol*, ought to be added either to the spicy and spirituous drinks or warm *diaphoretick* medicines that are giving; the alkaline powder being then left out. These mineral acids however are not to be administered to sucking children, but to those only who are further advanced in life. And after the discharges and fever have abated, the decoction of *Peruvian bark* should be given, but then it ought to be made warm, stimulating and stiptick with oak bark, oil of *cinamon* or mint, and a small quantity of *alum* or *spirit of vitriol* should also be added to it.

It should have been mentioned before, that in such colliquative diarrhœas, I have sometimes added so much tincture of *ipécacuanha* * to the other medicine, as was barely sufficient to excite some degree of *nausea*, in order to make a revulsion from the lower viscera. But if this end was not answered so well as I wished, a few grains of rhubarb in powder, or a small proportion of its tincture was substituted in place of the other. *Epsom salt*, *manna* and opium should now be wholly abstained from, unless that a few drops of the latter may sometimes be added to the mixture as an *antispasmodick*. And tho' the patient ought to be lightly covered, or so managed as to have a proper warmth supported, particularly in the lower extremities, yet fresh air should be admitted into the room when the weather is warm, provided the wind does not blow strongly on him. But if the season be calm, the sick person must be gently fanned, and the windows set up, yet without allowing the sun to shine directly into the apartment.

* The tincture I use, is made by infusing three ounces and as many drachms of the friable parts of *ipécacuanha* in coarse powder, with forty-five ounces of rum or brandy, and as much *Madeira* or any other pale wine, to which a few grains of *cocchineal* may be added for the colour's sake. Four scruples of this tincture will vomit a child twelve months old; and few men require more than six drachms of it for a dose. The tincture of rhubarb which is suited to the above purposes, is made with one ounce of rhubarb, and as much cinamon infused with a pint of brandy.

Of CONVULSIONS in CHILDREN.

WHEN the belly is bound in the fevers of children, they are in danger of convulsions, which do not happen frequently, unless the first passages abound with acrimonious humours or flatulencies, the extremities being cold at the same time. Under these circumstances, children with large heads or broad foreheads, are most liable to convulsive disorders or stupors, especially at the beginning of fevers.

When convulsions come on early, after some blood has been taken away, provided the patients were strong, they generally recover if they can be made to vomit freely. But so great is the insensibility at such times, that this cannot be brought about without administering pretty powerful emetics; such as the tincture of *Ipecacuanha*, *antimony*, or a solution of emetick tartar in water, which may be given every quarter of an hour, till the patient vomits. Were I to declare my opinion freely, it should be, that whenever a person can bear a little rough treatment in fevers, nothing answers so well as active *antimonials*, which, when they operate properly, and the patient can bear the shock they give the constitution, such a change on the body is thereby wrought, as sets open all the secretions, freeing the first passages at the same time, of whatever might prove *morbifick* in them. Some preparations of mercury have the same effects on certain occasions, though they are little in use at such times; and indeed they ought to be given with caution, as I have since done, from an accident
that

that happened, through a mistake, in my own family*.

Left what I have said of vomiting children at the time they are convulsed, should be taken in too general a sense, I should have observed, that if the *emetick* does not likewise purge the patient, a diarrhoea ought presently to be brought on by clysters or laxatives, in order to free the interior and superior vessels of the *plethora* they still sustain; as may easily be perceived, from some degree of *stupor* and inattentiveness yet remaining, as proofs of too great repletion in the vessels of the brain; for, should they be suffered to continue in this state of unnatural distention, they will be so effectually surcharged on the next return of the fever, that mortal convulsions, or an *apoplexy* with a rupture of the vessels may probably be expected. And indeed these too often happen; for the strainings to vomit, by urging the fluids strongly towards the

* About twenty-five grains of magnesia were ordered to be made in a mixture with six drachms of water for a child of my own not five weeks old, one tea-spoonful of which was directed to be given every hour. But instead of *magnesia præcipitatus albus* was used by mistake; and as the infant had before taken the former, two small tea-spoonfuls of this latter mixture were given at once for a dose. In a very few minutes she became exceedingly sick, had clammy sweats, and strained violently to vomit, for the space of half an hour; she then fell asleep and sweated profusely, having a great heat diffused all over her body and limbs. This however abated as the sweat proceeded; and in about three hours she waked ravenous for the breast. Such a quantity of very viscid mucus was discharged on this occasion by vomiting, as I never saw the like in one of her age. But as she had always been liable to gripings, she from that time enjoyed so good health, as scarcely ever to have a bad stool afterwards so long as she sucked. Yet notwithstanding some practical hints might be deduced from this error, I have but seldom ventured to give this *præcipitate* internally; and then only in small quantities. This involuntary deviation from established practice, happened in the month of August, when the weather was still very warm.

superior parts, rather increase the local *plethora* that already takes place there; so that the necessity for making revulsions from thence, by promoting a sufficient number of loose stools on such occasions is very obvious.

If the patient is stupid, volatiles should often be held to the nose, in order to rouse him when any thing is given, provided these do not exasperate the convulsions by their pungency, as I have known them to do. But as whatever is poured into the mouth, most commonly goes no farther at such times, the gullet should be compressed and relaxed alternately, by stroaking downwards with one's fingers, applied on each side of the throat, in order to promote deglutition. And when vomitings can be excited on such occasions, it is surprising how much *mucus* is commonly discharged; and *this* is so viscid, as makes it necessary to clear the throat and mouth of it, by entangling it with a feather twirled briskly round, or pulling it out with one's fingers. It therefore could scarcely be expected, that this very viscid *phlegm*, should ever have been dissolved, either by medicine or the action of the stomach; for it is so glutinous, that it will not mix with water without much stirring; and after all, it may still be drawn out of the water in a ropy form to a great length. Besides, *this* is not a merely simple or inert mucus in its own nature; for it is blended with an acid, which at first might either have contributed to the fever, or increased it afterward by its irritation. The patient's recovery, therefore, seemed much, if not wholly to depend on freeing the first passages of this indissolvable mucosity*.

I have

* Was it owing to an excess in the secretions which were made from the glands of the stomach, after the fever attacked,
that

I have oftentimes observed, that children are most commonly seized with convulsions in fevers during sleep, owing, probably, to the terrifying dreams which people are liable to at those times, from the unnatural excitations of the common sensory, together with the plethorick condition of the vessels in the brain. For such dreadful images are then presented to the mind, that did the like appear to these delicate subjects whilst they are awake and in health, they might have the same effects; and more especially may it be so in fevers,

that this glary matter so abounded? or was it produced from a mixture of the *gastrick* juices, with the oily or other viscid parts of the milk and nourishment, together with an acid? And if that sort of *acrimony*, can have so violent effects in the first passages, what evils may not be expected, should it pass to the blood? My opinion is, that the *gout* and *stone* are owing to some degree of an *acid vicidity* of this sort, as the *rheumatism* likewise may be at times. Experience proves, that those who are much troubled with acidity when young, seldom escape disorders of the joints in their more advanced ages. And it is also true, that the subjects of such complaints are in a remarkable manner liable to *acidity*; which doubtless is the cause of many other distempers, when it is not at all suspected, though it be the only acrimony which can be generated in us, in the ordinary course of diet, except so far, as it may be mixt with more or less of the bile.

A lady lingered more than twelve months under various illnesses, and among other complaints she was tormented with colicks, and such excruciating pains in her limbs, that she could take but little rest. She at last died, as was supposed of a *marasmus*. But when her body was examined, in order if possible to discover the nature of her complaints, the *spine* and bones of her arms and legs, were so distorted, that from being a person of a proper height, she did not then measure four feet. The *os humeri*, *tibia*, as well as all the other bones, were so softened, that the *scalpel* passed easily through them; the marrow following it as so much oil in a very dissolved state. This observation will serve to explain some things, that hereafter may be said, of the relaxations that happen in the joints, to those who are much liable to acidity, either during infancy, or in their more advanced ages.

when

when the nerves are exceedingly irritable, the coats of the *arteries*, and other *muscular membranes* being already spasmodically affected. *Fear* of itself, either acts immediately as a spasm, or it quickly induces one on the external membranous parts; and the strong impressions made by these alarming dreams, are to the full as powerful, as if the *phantoms* they represent, were really before the patient. The slightest effects of these frightful suggestions, are screamings or startings up in terror and amazement, with marks of the deepest horror strongly impressed on the countenance. These are warnings which loudly call for our best endeavours to prevent worse; by awakening the patient thoroughly but cautiously; obliging him to sit up in bed if he is able, or raising him with pillows or a bed-chair, to a half-sitting posture, if he be weak or very young; and as much as possible diverting him from sleep till the fever is abated, by applying sinapisms to the soles, and blisters to the temples, injecting clysters, and giving *alkalies*, joined with *laxatives*, *antimonial diaphoreticks*, or whatever else may be thought necessary, and laying hot bricks at a proper distance from the ancles, in order to remove the constrictions that act forcibly on these parts. But if he cannot be kept awake, a careful person should watch in order to wake him gently from his terrifying slumbers, in case of convulsive twitchings or startings.

The convulsions, however continue sometimes so long, or the stupor may be so great, as to make it necessary, to hold *volatiles* often to the nose; to take some blood either from the jugular or foot; to put the patient in warm water as deep as his waist for some minutes; and being then quickly wiped dry with a hot cloth, warm bricks should

should be laid on each side of the ancles, when he is put to bed. Frictions should likewise be used, and more active clysters repeatedly injected; blistering plaisters ought to be applied, either behind the ears or nape of the neck, and sinapisms to the soles as has been said. But in the mean time, small doses of an active laxative mixture, should be given every half hour, in order to promote plentiful stools. For if the patient is able to bear evacuations, they must be copiously excited; more especially at the beginning of the disease; yet without depressing the patient too much, or as it were all at once. The medicine for this purpose, may be made with *manna*, a small quantity of *sal catharticum amarum* (to quicken the operation) *essence of antimony volatiles, vermifuges, or alkalies*, according as they may be severally required. And whenever the fever ceases or remits, *Peruvian bark* should be given immediately, together with whatever else may be needful. I will just observe here, that if a quick rolling of the eyes happens before convulsions, and the same continues in the intervals between these attacks, as if the patient looked hastily toward one side, and again to the other, but without moving his head; or when the same symptom appears in fevers with a *stupor*, or the person winks without ceasing, but insensibly as in the former case, they portend general convulsions in children, an apoplexy or a *lethargy* in elderly people, of either of which few or none will recover.

Of the T H R U S H.

THOUGH the *thrush* be most common to infants, others are not exempted from it, more especially those who are elderly; and so far as I have yet observed, this disease never appeared, but when an abounding acid might have been traced: which, having passed to the circulating fluids, *these* were not only tainted with *that acrimony*, but rendered more viscid and less fit to pervade some orders of vessels; amongst which, the *excreting mucus glands* of the mouth, throat and downwards, seem most adapted to have obstructions formed in them from such a distemperature of the humours, for reasons yet unknown to us, unless it be, that the *salivary* secretions unite more readily than others, with certain saline bodies. In infants, the thrush is always preceded by green, pale and curdled, or frothy stools, which are more or less *acrimonious*. And in those of more advanced, or indeed the greatest ages, a fever with either a *dysentery* or *diarrhœa*; or be the previous complaint what it would, proofs of an acid abounding in the first passages, might have been discovered, had the proper attention been given, before the disease we speak of appeared. And then, indeed, it seemed owing to the improper methods that had been used to check the symptoms, before the *acrimony* was corrected or removed, that the *thrush* ensued at all. The like may also be said, when *this* complaint shews itself in consumptive patients; though here it is not so much in our power to free the fluids of such a morbid taint, as it seldom appears, till towards the last stage of that disease.

When

When the *thrush* appears in infants, I take the most expeditious methods (except by giving emetics, which for aught I know might be very proper at the beginning of the disease) to clear the stomach and intestines of those sharp humours, with *rhubarb*, *magnesia* or crabs eyes: but then, the patient must as much as possible be confined to a diet of broth made with lean meat, having only a little parsley boiled with it, till the stools are of a proper colour, when he may be allowed to suck between whiles: yet, broth and the *alkaline* powders, must still be interposed, in order to correct the *acescent* quality either of the breast-milk, gruel or whatever else tends to acidity. And as an insatiable thirst, with excessive heat and pain attend in this disease, when the pustules are numerous, a basin with warm water, should often be held under the patient's mouth, that the *tepid* steam thereof may relax the vessels, and dilute or abate the acrimony of the obstructing humours. A mixture suited to the above intentions may likewise be prepared, by boiling one fig together with a little *liquorice* and barley in water to two ounces; to which ten or twelve grains of *borax* being added, a tea-spoonful of it should be given frequently warm to moisten and relax the affected parts, during their present inflamed state. But *this* mixture ought to be made fresh every morning and evening, when the weather is warm. Should the jaws and throat be much swelled, poultices made with bread and milk, or figs boiled with the latter till they are very soft, and afterwards beaten to a smooth pulp, ought to be applied outwardly. And when the crusts begin to fall off, a small quantity either of *myrrh* or of the balsam of *Tolu* should be boiled with the other ingredients, and given as the former mixture; for whatever is used by way
of

of gargarism for infants, ought to be so contrived, that it may be swallowed with safety. The barbarous custom of rubbing off the *apthæ* ought by all means to be strictly forbidden; Convulsions being sometimes the immediate consequence of this cruel treatment; or the inflammation will certainly be much increased, and the disorder renewed with redoubled severity by it. When the method above recommended had been carefully pursued at the beginning, and the complaint was slight, I have seen it cured in the space of forty-eight hours, or the appearance of more pustles was thereby prevented.

Should I be censured for prescribing a gargarism, which consists of a decoction of such things as contain *sacharine* principles, and therefore they must be remarkably *acescent* in a disorder which was said to arise from an abounding acid, I would answer, that although the thrush seems to be only a local affection, depending on an acrimonious *dyscrasis* of the fluids, yet the particular inflammation that is thereby excited, must be regarded, abstractedly from the general cause, that greater evils may be avoided, which else might ensue from this dangerous concomitant. For though *this*, of itself, is commonly looked on as the principal disease, and therefore its remote causes are too often neglected, the consequence of such an oversight is, that applications are made only with a view to the *thrush*, whilst the generally tainted condition of the humours, is wholly disregarded.—The reader therefore will please to observe, that a particular attention is had thereto in the method of cure; and for that reason, no great addition can be made to what we suppose to be the remote cause of the complaint, by using *acescents* in a moderate manner, so other things are duly interposed.

Because

Because the *thrush* seldom appears in adults or or aged People as an original disease, before they had been weakened by other disorders, it always portends danger, the patients having now but little strength to support them under this fresh complaint, together with the fever and other concurrences of a complicated disorder; for I never observed, that the *thrush*, of itself, proved critical on such occasions. After purging the person cautiously with *rhubarb* and *magnesia*, and enjoining an *alkalescent* diet, the same treatment, in other respects, will nearly be required, as was mentioned for children in the like condition. A thin jelly of *hartshorn* and the *decoctum album* having a good deal of fine powder of hartshorn in it, should often be drank, to which a little cinamon-water. or some other palatable distilled spirit ought now and then to be added. And indeed, a dilute jelly of hartshorn may also be given to infants.

When the sloughs are separating, more especially if the pustles were crowded and deeply rooted, a great discharge either of a clear or bloody *saliva* will be made from the glands of the mouth and throat; their excreting ducts being now laid open. And as in some cases, the same also happens to the glands of the stomach and intestines, the like ferous humour will also pass in great abundance by stool; so that the patient is sometimes sunk by these evacuations; or at best they will greatly retard his recovery.

Yet, however dangerous these exuberant secretions may be, they must be moderated by degrees rather than stopped suddenly. For that end, the patient should be gently purged every second or third day, with four or five grains of *rhubarb*, given every hour or every second hour, till a free stool is promoted; for this medicine not only acts mildly

mildly as a *tonick*, but clears the bowels of extra-
fated humours, which might have bad effects by
becoming putrid, were they suffered to remain
within. The Quantity of rhubarb, however, should
be much less for infants. On the intermediate
days, a weak infusion of *Peruvian bark*, *cinamon*
and *oak bark* made with water, should be given in
small doses every hour, or at longer distances of
time to children, together with either *crabs eyes*
or *magnesia*, according as one or the other of these
may be required. For grown persons, a stronger
decoction must be made of the same ingredients; of
which two common spoonfuls may be given every
second hour, having two or three grains of *alum*
or a few drops of *spirit of vitriol* added to each
dose; for it may reasonably be thought, that the
acid which prevailed at first, must by this time be
nearly subdued; or if it should not, these *mineral*
stipticks by their bracing and *antiseptick* effects,
must now be useful. But whether the *acetous* hu-
mour be corrected or not, I do not scruple to give
mineral acids on this and many other occasions, tho'
one of the *vegetable* kind takes place at the same
time; because these check the expansion of that
air, which is so plentifully generated by the latter,
whilst it is in a fermenting state; and thus they
become *sedatives* in complaints which arise from
such a cause. Besides, acids of mineral produc-
tion, not only are powerful *antisepticks* in diseases
that tend toward putrefaction, but in the present
case they also are excellent bracers, as was just
now said, and therefore they are the more neces-
sary at this time, when the excretory ducts of the
mucous glands throughout the alimentary canal,
are as it were laid open, or excessively dilated. An
infusion of *cinamon* and oak bark, made with plain
water, will serve for drink in this last stage of the
disease;

disease ; to which a little distilled spirit or one fourth part of red *Oporto* wine, may now and then be added. And when the discharge from the jaws is great, a little of *this* wine may often be held in the mouth by way of *gargarism*, either by itself, or infused with oak bark, having a little *alum* or spirit of vitriol added to it. In the mean time, the diet should consist of well-boiled gruel made with any sort of grain that is in common use, or panado, either with or without wine or brandy, and sometimes the broth of lean meat may be given for a change.

Of the RUNNINGS from behind the EARS of CHILDREN, and other cutaneous DISORDERS.

THOUGH spreading deep Ulcerations should be prevented, yet the discharges that are made from behind the ears, more especially, of gross children having large heads, ought not to be hastily dried up ; else troublesome swellings of the *parotid* and *maxillary glands*, as well as of those round the neck, or something worse may follow. What I call *chrystalines*, are formed by an extravasation of the *serum* or *lymph*, that raises the *cuticle* in blisters, as large as the end of one's finger, and which in the space of one night or sooner, will fill with a limpid humour. Many of these eruptions appear together or successively ; in particular on the face, neck and breast ; and as they break with the lightest touch, scabby crusts succeed, and greatly disfigure the child. Twenty or thirty grains of *præcipitatus albus* made into an
ointment

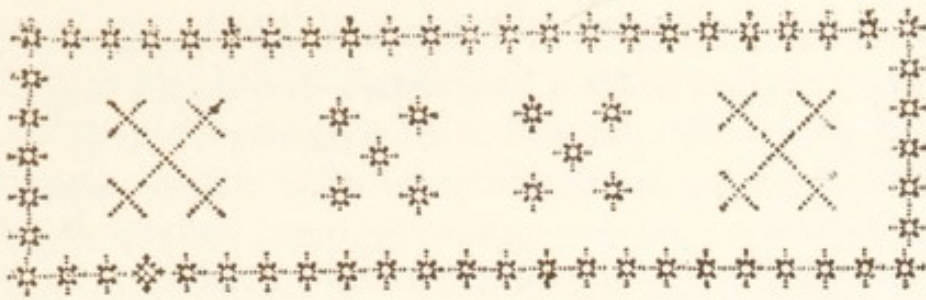
ointment with six or eight drachms of *axungia porci*, will soon cure these superficial ulcerations, as well as the runnings from behind the ears; by gently rubbing them with it, once or twice in the day. But in both cases, some *alkalized* purges should be given, at the distance of three or four days between each dose.

If two drachms of strong *mercurial ointment*, be mixed with the above liniment, and this composition is rubbed on the *tinea* every morning and evening, it will cause it to disappear; but, still, the disorder may probably return, if issues are not made in the arms, and the patient be not purged every third or fourth day for a fortnight: and once a week for some time afterward. Besides, he ought to drink lime-water, on the intermediate days, and abstain from the free use of every thing that is acerbent for the present, as well in *this* as in the two former complaints; unless they appear on infants at the breast, who do not require such frequent purgings, though *magnesia* or *crabs eyes* must now and then be given, and broth likewise used as a diet between the times of sucking.

Having recollected that a woman had cured several *tincas*, which were said to have baffled all the methods that were tried by others, I enquired how she treated the n, and was readily made acquainted with her manner, as follows. Two or three purges must be given, at the distance of three days from each; and the hair being closely cut off, she applied some *colewort* leaves one above another over the head, every morning and evening, in order to draw the part as she called it; and on shifting these leaves, the head must be well cleansed with a hot lather of *castile* soap and sage tea. Having done so for a week, a plaster should be prepared, by boiling two ounce. of rosin and a proper quan-

tity of wheat flour, with a quart of the malt liquor called *porter*, till the whole acquire the consistence of a stiff paste ; which being spread on soft leather must be laid over the whole head. So great a discharge is promoted by this application, as makes it necessary, not only to cleanse the plaster itself, but the head also twice or oftener in the day ; else a very offensive smell would presently be perceived. This paste is so adhesive, that much of the hair comes away with it ; but of which it must be carefully cleared at each dressing ; so that, after some time, the head is left quite bald. The bulk of a hazlenut of *Roman vitriol*, ought then to be dissolved in a pint and a half of rum, with which the part must be washed every morning and evening daily, and afterward covered with a plaster, made with *bees-wax* and mutton-suet, till the hair begins to grow thick. Two brothers of thirty and twenty-two years of age, were freed of loathsome *tineas*, which they contracted during their infancy, by anointing their heads twice or three times in the day with an ointment made with hogs-lard and glass finely powdered, and covering them afterward with a thicker composition of the same ingredients. But I have no experience in either of these methods.

The eldest of these brothers told me, that he chiefly imputed his cure to the use of an ointment, made with the leaves of tobacco powdered, and mixt with hogs-lard ; which he had used for some time. But this produced such a *nausea* and retching to vomit, with cold sweats and faintings, that he was obliged to leave it off, and have recourse to the ointment made with powdered glass and hogs-lard which finished the cure.



OF THE
DISEASES
IN
SOUTH CAROLINA.
VOL. II.

Of the SUFFOCATING or CATARRHAL
PERIPNEUMONY in CHILDREN.

CHILDREN under seven years of age, are liable to *suffocating catarrhs*, but seldom afterwards so far as I have yet observed. This disease is so rapid in its progress sometimes, that it proves mortal in a few hours; and the patient can hardly survive the third day, unless *it* were slight or had been relieved by medicine; for, in my opinion, it inevitably must terminate in death, if it be left to take its own course.

It sometimes comes on with a wheezing at once; but most commonly a short dry cough, from anx-

ery, and some degree of heaviness in the countenance, together with a hoarseness and quick respiration when the patient is hurried by exercise or passion, give us the first notices of it. Such warnings, however, are too often slighted; for the child having little pain, no difficulty in swallowing, nor any perceptible fever, he will run about as in health; though he is obliged to stop at times, in order to fetch breath. On the other hand, others become drowsy and dull at once; their countenances being flushed, the eyes watery, the jugular veins very full, and their necks seem swelled. I have likewise seen it follow the spurious *Aphthæ*, attended with a constant slavering or spitting; to which, when stopt by restringents or stypticks, the catarrhus peripneumony presently succeeded.

From these appearances in this early state of the disease, it may easily be discerned by any one, who is but moderately skill'd in the *animal œconomy*, that the vessels in the *brain* and *cerebellum* are likely to be soon overcharged; because the blood being already accumulated in the lungs, *these organs* cannot receive it freely from the heart; nor can *this* latter *viscus* admit the whole of that which should pass to it from above. The fluids therefore must soon be too much collected in the superior parts; the wheezing now increases fast; breathing is performed with a rattling sort of noise, which is made by the air in passing and repassing through the extravasated *mucus*, with which the *bronchia* and *pulmonary vesicles* are stuffed; but which is too viscid to be brought up easily. A dreadful stifling soon ensues, and the patients, not being longer able to keep up, fall down dead, as one may say, in the midst of their play; for they presently expire, as being suffocated by this *local excess* of their own fluids. Accordingly

cordingly when sent for, I have sometimes found *them* breathless with all their clothes on.

The pulse though weak and soft, is seldom much hurried in this disorder, till towards the last scene, which indeed is a short one.

This distemper in many respects, resembles *that sort of peripneumony* which succeeds a quinsy; and probably is owing to a slight inflammation, together with an excessive repletion in the vessels of the *glottis*, inside of the *trachea* and lastly of the *lungs* themselves. It mostly appears in foggy weather; or when a few warm damp days set in, after the air had been cold, whether it were rainy or dry before, more especially if the patient had a cough previous to that change. A *coryza*, *hoarseness*, frequent coughing with a profuse expectoration of thin limpid serum; a plentiful discharge from the *pituitary* glands of the mouth and throat, or a running from the nose, sometimes precede this complaint; which appears with all its symptoms presently after the excretions were abated, from whatever cause *this* might have happened.

In what manner these several affections, which shew a relative or local weakness of the vessels belonging to the *respiratory* organs and the passages leading to *these*, should be prefaces of such *catarrhus peripneumonies*, is easily to be conceived; and therefore all our endeavours should be directed to prevent them if possible; by promoting the discharges that have already commenced, in order to free the parts of the surcharge they sustain. It is true, that a spasmodical contraction of the external parts, may and actually does contribute to this disorder by causing the fluids to recoil on the internal vessels; amongst which those of the *trachea* and *lungs*, seem, at present, most disposed to admit and retain an overcharge, as being perhaps more

relaxed than others, by the present warmth and moisture in the air; hence if they cannot clear themselves of *this* overfulness, obstructions or redundant secretions are likely enough to ensue.

From the blood being thus unnaturally directed towards the lungs, and the repletions this occasions, together with the relative laxness of the pulmonary vessels themselves, so profuse a secretion is made into the *vesicles* and *bronchia*, that they cannot receive a sufficiency of air to give a full expansion to the lungs; nor will the patient be long able to clear himself of this superabundance of phlegm; so quickly and plentifully is it secreted; and so suddenly are the vital actions and *vis nervea* depressed.

If I judge rightly, from the observations which experience hath furnished me with, the cure of this very precipitous disease, depends on freeing the *organs of respiration*, as speedily as possible, from this exuberance of *mucus*, which now clogs them; and repeating the same means as often as may be necessary; on diverting the excessive flow of the fluids, that at present is made towards the lungs,*

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* So lax and overcharged are the lungs and parts that lead to them; so strongly are the fluids determined that way sometimes, and so profuse are the secretions in this complaint; that I have known the *pituitary* membrane to be separated from its connexions, so as to hang without the nostrils in the form of bladders filled with lymphid *serum*. These were said to be *polypuses*, though they appeared in the space of a few hours only. But, if there was no *dangerous impropriety* in this notion (for they might have been called *false polypuses* or by any other name, without any detriment to the patient) it certainly was a fatal mistake in the gentlemen, who suppose *these* to be the cause of the present difficulty in breathing; *which* they said would cease if *they* were removed. Having declared my opinion of the disease to the child's relations, without being listened to, as they were prepossessed to the contrary, by what the others had said in my absence, I withdrew after informing
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to which the immediate cause of the disorder is plainly to be imputed from the first, and which now supports the exuberant secretions; and lastly, on removing the spasm that acts on the external vessels, which justly may be called the remote cause of all that happens.

At the beginning of this distemper, some blood should be taken from the jugulars if the patient be strong, and blisters ought to be applied quite round the neck and between the shoulders. To clear the lungs for the present, and also to make revulsions from these parts, I commonly order one ounce of *manna*, a drachm of *sal catharticum*, sixty or seventy drops of *essence of antimony*, or a grain of *emetick tartar* to be made in a mixture with four ounces of water, of which one common spoonful is given every quarter of an hour, to a child four years old, till he vomits and purges. But still as this *mucous* humour will be too plentifully secreted, to the great distress and danger of the patient, the *emetick* must be occasionally repeated before the

some of them, that the patient had but a few hours to live. The operation being set about at noon, one of these *polypuses* was brought away whole; but the other having burst by the gripe of the *forceps*, the remainder of the loosened membrane was carefully picked out; so that both nostrils were now cleared; but lo! death ensued at four o'clock the same day. These indeed were accidental symptoms, and of remote concern, as being only appendages to the disease, which lay in the *trachea* and *lungs*; out of which had they permitted the extravasated *mucus* to be *extracted* by an *emetick* mixture, which was at hand, and would have been given had not those two men forbidden this, the patient might have had a chance to recover, though the *polypuses* had remained where they found them. Some part of this note is certainly necessary, that others may be guarded against such oversights in the like cases; but I have been the more particular, as these gentlemen delivered their opinions with a *dogmatical superciliousness*, which did not redound much to either their breeding or skill in the art of healing, as the event presently shewed.

bronchia

bronchia are too much charged with it; for *his* strength and *sensibility* will sink, according to the degree of this local repletion.

Whether it be owing to the vessels of the *brain* and *cerebellum* being overcharged and pressing on the origins of the *nerves*, whereby the animal spirits are as it were intercepted or not, I am ignorant; but, certain it is, that their power seems greatly impaired in the *suffocating catarrh*. And for that reason, we must give larger doses of vomiting and cathartick medicines in this than in most other complaints. It is also to be observed, that as it may be required to promote vomitings perhaps, every second or third hour, or as often as the oppressed condition of the lungs makes *this* necessary, the purgatives are not always to be added to the mixture. For it will be sufficient to keep the belly moderately loose throughout the disease, provided the patient had been briskly purged at the beginning of it. As *oxymel scilliticum* commonly works quickly, one spoonful or more of it may be given to answer the above purpose. But as it sometimes promotes only one vomit, one or two tea spoonfuls of *tinctura ipecacuanha* had better be added to it, when it is found to have little effect of itself; or forty or more drops of *essence of antimony* will answer the same end as the above tincture.

Though the *ipecacuanha* and *antimonial wine* seem to act by promoting the excretions from the first passages only, yet by their *stimulus* they also are excellent *tonicks* and *diaphoreticks*. For by exciting the internal vessels to brisker contractions, and without much heating the patient or rarefying the humours, a more regular circulation and an increased perspiration will for the most part be brought about in fevers and other distempers. Therefore I commonly

commonly add small quantities of one or the other of *these* remedies to my prescriptions; as well in acute as chronical disorders, unless some particular circumstance forbids the use of them.

The good effects that ensue from the outward application of *cantbarides*, both as *stimulants* and *antispasmodicks*, particularly in fevers of the depressed sort, may probably depend on somewhat of the same nature. For, when the salts of those flies mix with the blood, and are conveyed throughout the system in the course of circulation, the vessels, whether they be generally or locally weakened in their contractile spring, are made to act more powerfully, by means of these pungent salts stimulating their coats. However this may be, the effect of such applications very commonly is, that whenever any overfulness takes place in the internal parts, provided it hath not been of too long standing, and the arteries there are not greatly disabled from exerting their *systoles*, they will be assisted in clearing themselves of the surcharge, by the increase of *tonical* force that is thus communicated to them: supposing, at the same time, that the proper means are using to abate the constrictions which act on the vessels in other parts. Nor are *cantbarides* less efficacious, in checking such ferous or colliquative discharges, as are common to summer diseases; whether *these* are made from the *alimentary canal* or pores of the skin; for such symptoms not only shew the solids to be greatly weakened, but that the fluids also are much dissolved, owing to an *atonia* in the *nervous* and *laxity* in the *sanguiferous system*. But this by the bye.

In the suffocating catarrh, the patient ought every now and then to sit in warm water as deep as his waist, for the space of a few minutes at a time; care being taken that his linen is not damped;

damped; and being expeditiously wiped dry, hot bricks should be laid at such a distance from his ankles, as just to keep up a proper warmth in these parts, which also must be moderately covered, so far at least as to defend them from the cool air. He ought to be placed in a half-sitting posture, in a well-aired room; and when he wants to go to stool, a warm chamber-pot must be put under him; the lower parts of the body being at the same time covered with a light blanket or quilt.

OF NERVOUS ASTHMA OR SUFFOCATIO STRIDULA IN CHILDREN.

THOUGH this disorder properly belongs to a different season, than what we are now speaking of, and it likewise differs in many particulars from the *suffocating catarrh*, I thought it best that these two complaints should appear as it were together, since they both are seated nearly if not altogether in the same parts.

The *spasmodical* or *convulsive asthma*, happens mostly, during a dry freezing state of the air; or when children have been much exposed abroad to a strong *north* or *north-east wind*; but at no time have I ever seen this or the preceding disease so frequent, that they might be numbered either among *contagious* or *epidemick distempers*; the subjects of them being but few; and the *suffocatio stridula*, appears much seldomer, than the other.

The *spasmodick asthma* attacks at any time of the twenty-four hours; but mostly towards the evening or during sleep; and then suddenly. It is indeed true, that it might have been forming before,

fore, though *this* passed unnoticed, more especially if the patient had neither been hurried by passion or exercise, which might have precipitated the symptoms, when once they began to take place. Be this so or not, the person for the most part is seized at once, with more or less of a dry sort of *hoarseness* and great difficulty in breathing, in which the lungs seem to expand and contract with such a harsh rattling sound, as might be made by many small bladders, were they shaken together in a close place; but without that churning noise, which the air makes in passing and repassing thro' the extravasated *phlegm*, which is collected in the *trachea* and its *ramifications*, in the *catarrhal* disease; though the breathing is as laborious quick and stifling in the former, as in the latter complaint. For, should the patient lie down, but for a small time, he will start up suddenly, from the danger of immediate suffocation, and pant for *air* in a *gasping* and *strenuous manner*; so that the shoulders are heaved strongly upwards in inspiration; and both then and during expiration, the *abdominal* muscles are violently agitated; nay the whole of the lower viscera, seem to undergo as frequent and strong concussions, and are as it were violently forced towards the *thorax*. The face is generally full and highly flushed; the eyes watery and red, so that the whole countenance shews signs of excessive distress; and indeed none can be greater than that which is at present endured, for the patient cannot be easy, but for a few moments, in any one posture. The *carotid* and temporal arteries throb strongly, and the jugular veins are extremely turgid; this whole scene being attended with constant tossings about, anxiety, restlessness and suffocation. But, as the best that can happen, this melancholy condition of the patient, will soon
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be put an end to by death, if he cannot be speedily relieved of it.

That *this* disorder arises from a spasmodical *constriction* in the *organs* of *respiration* seems pretty plain, from the dryness of the parts; for though the patient is obliged to cough often, either from *anxiety*, or the *irritation* caused by the *plethorick* condition of the lungs, yet no *mucus* is thereby discharged from them, none being indeed secreted. And that this *local spasm* is violent, appears from the weight of the *atmosphere* not being able to overcome the *force* with which *it* acts. It is indeed true, that in the last stage of this complaint, the *trachea* and its *appendages* seem filled with viscid phlegm; but as *this* period commences not an hour, or perhaps but a few minutes before death, when the blood is as it were at a stand in the extreme parts, and the *pulmonary vessels*, as well as those of the *brain* and *cerebellum*, are already surcharged in the highest degree, what remedy can then be prescribed with any hopes of advantage?

As the *suffocating catarrh*, so is *this spasmodical asthma* mostly confined to children under seven years of age; and the patient seldom survives the third day, unless the complaint were mild, or it attacked only at intervals, as I once saw in a child two years old, in whom it returned every evening for a fortnight, and continued about six hours. The patient was recovered of this dangerous disease by taking the bark together with the briskest *antispasmodicks* in the intervals between the spasms; though other means were not neglected in time of the *dyspnœa*.

As to the method of curing this very *acute* and *dangerous distemper*, I wish it were in my power to prescribe one, which would answer that purpose with any tolerable certainty. For after considering

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it as an affection of the *nervous system*, I attempted to remove it with *antispasmodicks* of different sorts, warm bathing and steaming the lungs; but hitherto with no great success; for it is so rapid in its course, that sometimes we have but a few hours to deliberate on what is to be done, or to give the medicines time to produce their effects, were these ever so well adapted to the nature of the complaint.

The remedies that I have found to answer best, were *diaphoreticks*, *opiates*, and such things as either abate the irregular determination of the *vis nervea* to the lungs, or divert it from the parts affected, by relaxing the local as well as the remote constrictions. Those intentions I have sometimes obtained by loosening the belly in the first place, and then giving opiates, *tinctura cantharidum*, *vinum benedictum*, and laying hot bricks at a convenient distance from the ankles; the repeated injection of small quantities of warm water in which a few grains of nitre were dissolved by way of clysters; and holding a basin with a decoction of *poppies* made in water constantly under the chin, that the vapours thereof may pass directly to the lungs by inspiration. It need not be mentioned, that the opium and antimonial wine should be given in small doses now and then, or in such a manner, that the latter may not stimulate so as to excite vomitings, though one or two pukes might do no harm. But though the patient may for a little while breathe easier after vomiting; yet, as the effects of such an operation are not lasting, I should think it wrong to add to his present distress by repeated retchings. And with regard to blisters, as I have always observed the application of them to be of ill consequence in *tetanick complaints*, or wherever the *nervous* power was un-

naturally

naturally determined to certain parts, more than to others by some particular excitements, so as to support continued *convulsive* constrictions there; I suspected the use of these active stimulants, in those cases that seemed plainly to require sedatives and topical relaxants, rather than that they should be exasperated by such things as irritate strongly. This objection to blistering however, is to be understood chiefly against their application to the neck or between the shoulders; but they may be laid on the remote parts as a *counter stimulus*, in order to promote a greater afflux of the animal spirits thither, in hopes to relieve the organs of respiration of the present excessive determination of *them*, that is made towards these parts.

It is however to be observed, that either the power of the common *sensory* is as it were so engaged to exert its influence on the respiratory organs, that it does not readily receive other impressions; or that a considerable degree of *insensibility* (owing to the fluids being accumulated in the brain) attends in this disease, that larger doses of medicines are required here, than on most other occasions; so that about four drops of *laudanum* and as many or more of *essence* of *antimony*, may be given every half hour to a child of three or four years old; increasing or diminishing these proportions, of one or the other as they may be found necessary.

Further

Of the HOOPING-COUGH.

THOUGH the *hooping-cough* be not an *epidemick* of this climate, but is brought hither from other parts, its approach having always been heard of before it appeared amongst us, I have given it a place in this essay, as perhaps, somewhat new may be said on that dangerous and obstinate complaint. In the space of twenty-six years this disease was *epidemick* here at three different times; twenty-one years elapsing between its first and second appearances, so far as I remember; and a little more than five years between the second and third; when like most other contagious disorders, it did not spare any one, who had not passed through it before.

Hitherto it always shewed itself in January or February; and when left to its own course, few recovered of it before June; but the weather being changeable, and the winds blowing often from the north or east in the year 1759, it continued, in some patients, till November, when it was banished by the measles. During the above year, the cough either abated or increased, according as the weather was hot or cool; and the consequences of so long a continuance of it, have ever since been severely felt by many. For so weakened were the *organs of respiration* by the violent and incessant exercise they endured, that those patients became liable to either *catarrhal coughs* and *spittings* or a *pituitous asthma*; the latter being most apt to return, whenever the weather from being cold and clear, changes to warm and moist; the former likewise being aggravated by this sort of air; yet, be the season what it will, the cough is more or less troublesome daily. And during the *hooping-*

cough of the spring in 1765, both the *cough* and *asthma* that were contracted more than five years before from the same disease, were then more troublesome than at other times. I observed in the last mentioned year, and it was the same in 1759, that though the patients seemed pretty free from the cough for some weeks, whilst the air was warm and serene, and the wind southerly, it nevertheless returned with almost the same violence as before, when the weather became cold wet and windy, from the east or north-east. If the disease continues after the summer is set in, it is more dangerous and difficult of cure, because the patients being more relaxed, and weakened, they become so much the more liable to *fevers*, *diarrhæas* and *convulsions*, both from the nature of the disorder, and the greater irritability of the *nervous system*, which inclines people to the above complaints at this season.

That the distemper we speak of, is of the *convulsive* sort seems plain; for during the fits of coughing, the hands and feet are clammy and cold; the patient loses the power of supporting himself; the stomach, intestines and bladder frequently discharge their contents, and general convulsions often supervene, and too frequently prove fatal. *Anger*, *fear*, *joy*, or *surprize* all precipitate the cough; but without being brought on by such causes, which are common enough to children, *it* may return of *its* own accord, oftener than once in an hour, or at longer or shorter intervals, according to the mildness or severity of the disease, and as the weather happens to be warm or cool; in which a few degrees either way, will make a sensible difference, in this and many other disorders.

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Whatever be the cause of this disease, from all I could remark in numberless instances, it principally if not wholly affects the *larynx*; the membrane that lines the inside of the *trachea*, and the *bronchial vesicles*; but by no means is the stomach chiefly affected as some have surmised, because the cough causes the patient to vomit. Were this a just supposition, we might then expect a vomiting rather than a cough; whereas, in many, there are no vomitings at all; and when they happen, it is generally towards the close of the fits of coughing. And, since it is also common, for the intestines and bladder to discharge themselves, we might, with equal probability, suspect the cause to act mostly on these parts, as some writers have imagined it does on the stomach, though we have plain proofs to the contrary. For the truth is, that these several collateral circumstances, proceed from one and the same cause; namely, the general *sympathetick constrictions*, that take place at the times of coughing, in all the *muscular and membranous parts*; as happens on the attack of either an *apoplexy* or *epilepsy*, in which the *excrements* and *urine* are often expelled.

This disease, commonly begins with a frequent but dry cough; nor have the patients *that running* at the nose, *snuffing* or hoarseness, which often ensue from catching cold. The *coughing* by degrees holds longer, and becomes so severe in a few days, that the sick scarcely have time to breathe during the fits. For so *spasmodically* affected are the lungs and their appendages, that one interrupted act of *violent expiration* continues, till the patient, being ready to be stifled, is obliged to fetch breath with all his might, in spite of the convulsed condition of these organs. The lungs, being expanded by this *inspiration*, receive the blood from the right

ventricle of the *heart*, and the *aunicle* discharging itself immediately, *it* then can admit the blood from the *vena cava*, whereby the superiour vessels are, in part, relieved from their fulness.

That an excessive repletion takes place in the parts above at such times, is evident, from the *swelling of the neck and jugular veins*; *the livid fulness of the face*; *prominent, red and watery eyes*; *violent head-ache, giddiness, blindness, ringing or buzzing noise in the ears, bleeding at the nose, and from the lungs*; and *the dangerous and even fatal convulsions that frequently supervene*. The cough however does not cease with one or two such vehement efforts to breathe. For, as the fit may continue for the space of a minute or longer, the patient will be obliged to exert several such forcible inspirations, before the coughing ceases; nor will *this* be, till more or less of *viscid* phlegm is brought up; and only so far does a vomiting contribute to shorten the paroxysm, by assisting in the expulsion of this *mucus*. When the fit is over, the person pants and is almost lifeless for a while, as being in a manner spent with the violent exercise he had undergone.

From the shrill or hollow sort of noise, that is made by the rushing of the air into the aperture of the windpipe, which is now convulsively constricted, the disease hath the name of *hooping-cough*. But *this* symptom does not occur in every case; and when it is wanting, the disorder may with reason be judged milder; for it shews a less degree of spasm.

In this distemper, I have tried all sorts of *balsamicks* and *pectorals*, without any advantage; oily and other relaxants rather did harm, and *opiates* alone were of but little use. For though I indiscreetly stupified some patients, *they* nevertheless coughed

coughed as often and severely when overwhelmed with sleep, as if nothing at all had been given. Nor can I say, that any benefit attended my practice, till I considered the disorder as a *convulsion* of the *respiratory organs*, owing to some sort of *acrimony* irritating the nerves that are distributed to these parts; but of what nature *this* was, I had no knowledge. And even after the complaint was taken in that view, the milder *antispasmodicks* were of little service; which determined me to try others that were more active.

The disease plainly divides itself into two periods, *viz.* the first attended with a dry convulsive cough, and the second, which, though *it* be equally *spasmodical* with the former, is yet attended with a plentiful secretion in the *trachea* and *lungs*. Indeed, this *secretion* seems mostly to be made at the time of coughing; for though a large quantity of *mucus* be sometimes brought up before the cough ceases, a rattling of loose phlegm is seldom heard in the lungs, during the intervals between the fits, as happens in most other disorders of these parts.

In attempting to cure this complaint, I confine the patients to a warm, but not too close room, more especially if the weather be cold and dry; and they are made to breathe in the steams of warm water often, in which a few grains of opium have been dissolved. Cold drinks are absolutely forbidden; and they are directed to sip small quantities, but frequently, of some gently antispasmodick diluting liquor, rather warmer than in most other diseases. To this purpose, an infusion of *sage*, *hyssop* or any other mildly aromattick herb made with water, and sweetened a little with honey, will serve. In the first period, the belly ought to be kept moderately loose, with either *mxna*, *rhubarb*, *magnesia*, or *sal catharticum* given occasionally in small
M 3 doses;

doses; to which some *chemical oil* and a small quantity of *essence of antimony* have been added.

For an infant of three or four months old, one *drachm* of *spirit of hartshorn*, as much *tincture of cantbarides*, five or six drops of *laudanum*, and about twenty drops of *essence of antimony* should be mixt together; of which five or more drops may be given every second hour or oftener with a little warm tea: and *this method* must be pursued throughout the first stage; by which means, I have often known the disease moderated, even at this early period. But, as has been said, the *diaphoretick laxatives* and *alkaline powders* ought to be interposed when necessary, more especially the latter; for the first passages must be kept as clear from *acidity* as possible; because *this*, by its irritation, might greatly aggravate the symptoms. And in order to prevent the superabundant generation of *that acrimony* anew, the patient should be fed with broth made with lean meat, rather than with milk and flower, or such aciescent things, as the diet of infants too commonly consists of. Moreover they ought to suck but sparingly. It is not however to be understood though warm things are recommended, that the patients should be made to sweat profusely.

Strong adults should lose some blood at the beginning of the hooping-cough; and, after being purged, a quarter or half a grain of *opium*, six grains of *volatile salt of hartshorn*, half a grain of *cantbarides*, and one grain of *kermes mineral* should be given every second hour in a bolus, which ought to be made just before it is given; and when necessary, five or six grains of *sal catharticum* may be added to each dose, till a free stool is promoted; for the belly should still be kept rather open. The common effect of this method was, that in the
space

space of a week, the cough was greatly mitigated; and some people were in a manner cured in a few days, when a *strangury* was brought on; but *that* never happened from the *tincture* of *cantarides*, so far as I have yet observed.

The second stage may be said to commence, when the *secretions* become free in the lungs; and *then* I think it time to brace the constitution with *Peruvian bark* given in decoction or powder. To prepare the former, one ounce of coarsely powdered bark, and two drachms of *serpentaria* cut small, must be boiled in a pint and a half of water, till only eight ounces remain. The liquor being strained and cooled, sixty or eighty drops of tincture of *cantarides*, one hundred and forty drops of *spirit* of *hartshorn* and forty or fifty of *essence* of *antimony* must be added to make a mixture, of which two common spoonfuls should be given every second hour to an adult, and when necessary, two drachms or more of *sal catharticum* may likewise be dissolved in the decoction. In a few days, half an ounce of the *cortex* in fine powder may be added to the mixture. A child of five or six years old may take one spoonful of the above composition; but for an infant of one year, a weaker decoction will serve; to one ounce of which, twenty or thirty drops of *sal volatile oleosum*, five or six of *essence* of *antimony*, and ten or twelve drops of *tincture* of *cantarides* being added, and sweetened a little, two or three small tea-spoonfuls of the mixture should be given as above; or in such a manner, that the whole of it may be taken every day, till the cough ceases; and even then, it will be safest to give three or four doses of these medicines daily for some weeks. When a *strangury* was brought on, a solution made with *gum arabick* and water was given to remove it; but then the other medicines

were in the mean time used, but without the flies, so long as the strangury continued.

Provided the patients were duly confined, the disease, generally, was so much abated in the space of ten days by the above treatment, as not to be more troublesome than a common smart cough usually is; and it either ceased or gave but little uneasiness in a week more, unless the weather proved unfavourable. When things did not succeed so well, the *bark*, at least contributed to prevent *those fevers*, to which children in particular, became very liable, as the summer advanced; whereby many were lost; either suddenly by *convulsions*, or more slowly, as being exhausted of their strength, by the cough and fever, together with the purgings, which for the most part attended them. For the stools being large and watery, the patients were quickly sunk by *them*, unless *they* could be checked in time. But the obstinate nature of the disease, together with the want of resolution in the parents, not only with respect to forcing medicines and a suitable diet on their children, but also to keeping them from the breast, oftentimes made it impossible to stop these *diarrhæas*, because the abundant *acidity* which prevailed in most cases, was greatly augmented by such mismanagement.

At the beginning of these fevers, vomiting with *ipecacuana*, sometimes had good effects; or so much either of its tincture or of *essence* of *antimony*, was added to the other medicines, as promoted three or four pukes. But, when a full dose of an *emetick* was administered, I usually ordered the child's legs to be kept in warm water as deep as the calfs, all the time the medicine was operating, in order to prevent the general spasms, that might be brought on by the cough and retchings, should they

they happen together, as sometimes fell out. But, whether a vomit were given or not to sucking infants, it was endeavoured to clear the first passages of the prevailing *acid*, with *rhubarb* and *crabs eyes*; and afterwards the latter were given freely, together with oil of mint and a suitable proportion of *sal volatile oleosum*. When the stools were large and ferous, the vehicle for these medicines, was a decoction of *cinamon*, *cloves*, and *oak bark* made with water, to which a few grains of *terra japonica* were sometimes added. The nourishment and drink were the same with those which have been recommended for the like purgings in children; and here also blistering different parts had good effects. Whoever considers how delicate and irritable the constitutions of such patients naturally are, how great their debility must be after having undergone such severe trials in various ways, together with the depressing heat of the present season, which much retards their regaining strength, will easily perceive, that a perseverance in the use of stimulating and *tonick* medicines, of a nourishing aromattick diet, and cordial drinks will be absolutely necessarily to them till they regain strength.

After a thaw, or a change from cold and clear, to either warm and fair or cloudy and damp weather, many complaints commonly appear; amongst which, *catarrhus oppressions*, *coryzas*, true or false *pleurifics* and *peripneumonies*, *inflammatory* or *serous quinsies*, the *gout* and *rheumatism* generally are most frequent. Those who were far gone in *catarrhal consumptions*, are likely to be strangled, by the excessive secretions that now will be made in the lungs; of which the patients have not strength to clear themselves. The pituitous *asthma* will probably attack with great severity; and children, more especially those who had coughs before, are

now

now in danger of *suffocating catarrhs*. Adults who are liable to a *vertigo*, should not be much abroad then, lest they be surpris'd with an *apoplexy*. In most of the above disorders, the hands, but more especially the feet, are cold or have but little warmth; nor can the patients be relieved, till a proper heat is communicated to these parts.

As to the general *borrour*, or a relative want of heat in the extreme parts, which happens before and returns at times during the courses of many acute diseases, the *gout* and *rheumatism* are not exempted from it; in particular, when a severe fit is forming. A local coldness, moreover, is perceived by many, for some hours before the *gout* fixes; whence, those who are habituated to that disease, can foretel what is to happen and where it will be. This want of heat in that particular place, seems owing to a failure in the circulation there; which is caused by the irritation of some *acid humour*, constricting the vessels, whereby the progress of the fluids is obstructed in them. Whatever be the nature of *that* humour which causes the *gout* and *rheumatism*, it seems pretty plain, that the fluids are made less fit to pass the *capillary* canals. Accordingly a blow, wrench, or whatever straightens the vessels; as tight shoes, will bring on the *gout*, when the humours are in the state we suppose; though without such accidents, the patient might have escaped it for the present. Such accidental fits may indeed be slighter, than if they had been brought on by an abundant *acrimony*, and happened as it were of their own accord, or without having been contributed to by intervening casualties.

