

Boerhaave
A N
EXPLANATION

Of that PART of

Dr. *Boerhaave's* APHORISMS,

Which treats of the

PHTHISIS PULMONALIS,

OR THE

C O N S U M P T I O N ;

Describing the RISE, PROGRESS and METHOD
of CURE, peculiar to that Disorder.

By CHRISTOPHER PACKE, M. B.



L O N D O N :

Printed by M. COOPER, for the AUTHOR. 1754

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Dr. Boerhaave's APHORISMS,

Which treat of the

PHYSIC RHEUMATISM,

OF THE

COMBUSTION;

Including the RHYTHM, PNEUMONIA, and MALARIA
of Ovar, according to the Disorders.

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LONDON:

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T O T H E

R E A D E R.

TH E following pages were originally designed as a specimen of an intended supplement, to the *English* translation, of the two first volumes of *Van Swieten's* commentary, on *Boerhaave's* Aphorisms concerning the knowledge and cure of Distempers ; and the author had never heard of the publication of a third Volume of that excellent work till he had agreed with the printer, for the publishing this little commentary. The size of his intended performance therefore is now diminished by one half, as there remains at present only a fourth part of the aphorisms unexplained.

As

To the READER.

As an entire explanation of *Boerhaave's* Aphorisms, cannot but be very necessary to beginners in the Science of Medicine, it is hoped, that this intended performance will be well accepted, till its deficiencies are supplied by some more able hand.

The proposals describing the conditions on which the intended supplement will be published, are to be seen at the end of this Commentary.



A N

EXPLANATION

OF

Dr. BOERHAAVE's Aphorisms.

Phthisis.

S E C T. MCXCVI.

IF the lungs should be so eroded by any ulcer, that a consumption of the whole habit should be occasioned, the patient is said to be afflicted with the *Phthisis Pulmonalis*, or a *Consumption* as the English popularly call it.

Before this disorder is more particularly considered, it will be by no means improper to excite in the readers mind, a general idea of its phænomena, their causes and effects.

The distemper arises from an exulceration of the substance of the lungs, affecting the veins, arteries and bronchial vessels. The pus absorbed from this ulcer into the blood, dissolves its whole mass by degrees into a putrescent liquamen, imparting at the same time an alcallescent acrimony to the fluids: On this single circumstance simply considered, de-

pende almost the whole assemblage of symptoms apparent in the disease. The blood through the absorption of purulent matter, labours under a beginning and increasing cachochymy; its balsamic quality decreases, then disappears; and as the distemper increases in violence, the fluids are so far from being nutrititious, that they become towards the end acrid and eroding; abrading every day more and more the solid parts of the body; whence the wasting and consumption. The blood being first spoiled by the ulcer, continually supplies it with fresh pus; and this increase of pus, promotes the farther contamination of the fluids with an amazing swiftness, in so much that the disease is sometimes finished by the death of the patient in so short a time, that it loses almost the denomination of a chronic disorder.

A young lady of about sixteen, died in less than a fortnight after the first spitting of purulent matter, notwithstanding great care taken on the first appearance of the cough, with regard to her regimen in diet, her medicines, a perpetual blister to divert the matter from the lungs, riding on horseback and in a coach, and the constant use of asses milk.

The lungs are full of cells and their substance is very soft; so that the matter is liable to lodge in them with great obstinacy, and a suppuration once begun, is easily communicated to their whole substance, through the softness of its contexture. The number of cells for the reception and confinement of the matter, is probably the reason why consumptive patients are often rendered miserable, by a constant tickling ineffectual cough, through the great difficulty of expectoration, and the endeavour of nature to dislodge the offending matter. There is also another calamity, which greatly contributes to render this evil so difficult of cure and quick in its progress, which is, that the lungs are furnished with a greater number of absorbent vessels, than
any

any other of the viscera, if you except the small guts with the bibulous orifices of their lacteal veins. The quantity of the absorbed matter and the progress of the bloods infection, will be in a direct ratio (*cæteris paribus*) of these absorbent vessels: So that in a pulmonary consumption the blood will be sooner spoiled, than in a consumption of the liver, spleen and other parts. The ulcers therefore of this part are less likely to heal, as the sinuses will be more numerous, from the great number of cells and soft contexture peculiar to the lungs; and the matter will be rendered sooner purulent, from its great increase and obstinate confinement. Also if some of the ulcers are healed, new ones are more likely to be formed. The constant motion of the part in respiration, and distraction of the fibres under a solution of continuity still farther from each other, is also another reason, why these ulcers are so very difficult of consolidation: This motion of the parts, occasioned by the ingress of the air in respiration, is very different from that of the lungs and whole body together, in riding, sailing or swinging; which is salutary, promotes expectoration, the transit of the blood and reunion of the ulcerated fibres; by this, the parts not being farther distracted from each other. If we observe a wound made in any muscular external part of the body, we find, that by the motion of that part in particular, the aperture will become larger and the cure impossible, till the divided fibres are kept in contact, by rest and a proper situation of the part.

S E C T. MCXCVII.

THE origin of this ulcer is derived from any cause, which confines the blood within the lungs in such a manner, as to convert it into purulent matter.

In confirmation of this (admirable and comprehensive) definition we find, that inflammatory obstructions of the lungs are often terminated in a consumption; any scirrous tubercles may impede the passage of the blood, producing the same effect; also coughs (or what we commonly call colds) long continued, are often productive of this evil; as by the violent and frequent agitation of the parts in coughing, a solution of continuity in the fibres may be effected, and the bloods passage through the lungs so impaired, as to produce pus from its stagnation in them.

S E C T. MCXCVIII.

TH E S E causes may be referred, first (A) to that particular temperament of the body, by which an hæmoptoe is first occasioned, and after that, an ulcer in the eroded part. This consists in the tender frame of the arteriose vessels, and the impetus of the blood infected with acrimony of any sort. It is known by the appearance of the fine vessels, and of the whole body: A long neck, plane and narrow chest, depression of the scapulæ, the blood being very florid, thin, dissolute, acrid and hot. The colour of the body being white and fine red, the skin transparent, mind chearful and the genius quick. (B) In that weakness of the bowels, by which the aliments too tenacious in their own nature, beget obstructions, putrefaction and acrimony; then is produced an exulceration of the vessels eroded by these evils; this is known by a small febricula, dry cough, increasing heat, redness of the lips, mouth and cheeks, increasing and arising after

after the entrance of fresh chyle into the blood, a propensity to sweat on sleeping, weakness and great panting on the least motion. (Γ) In that age when the vessels having arrived at their greatest bulk, resist any farther extension, while at the same time, the blood increases in quantity, acrimony and impetus; therefore between the sixteenth and thirty-sixth year. (Δ) In an hereditary disposition of the constitution, here consult what has been delivered at (24, 26, 29, 38, 39, 40, 41, 44, 45, 48, 60, 61, 64, 69, 72, 82, 84, 86, 100, 106.) For these (sections) being compared with (1198 *a. β. γ. δ.*) explicate, define and foretell the nature, causes and effects of a blood-spitting; the hæmoptoe which is the effect of this constitution, is accelerated by the interruption of any habitual evacuation, especially of the sanguineous kind, as the hæmorrhoids, menstrual or lochial flux, bleeding at the nose, habitual venæ-section, and these especially in plethoric habits, or persons deprived of a limb. 2. Any great force brought on the lungs by coughing, shouting, running; great efforts of the strength, anger or any wound inflicted howsoever. 3. By a diet of the acrid, saline or aromatic kind, drink of the same nature and manner of life. By any disease whereby the quantity, acrimony, velocity, rarefaction and heat of the blood is increased; whence it so often happens in acute fevers, the plague, small-pox and scurvy.

Christopher Bennet in his *Vestibulum ad Theatrum Tabidorum*, imparts many useful observations

ons on this distemper, and the method of treating patients in all stages of the disorder. The reader must frequently exclude his theory, but may draw many useful conclusions, according to a just rationale of medicine, from the recital of matter of fact in his histories of cases: However, his theory and method of cure is frequently more just, than could have been expected from the times he lived in. By the title of his book, he seems to have designed a larger work on the same subject, and this treatise only as a preparation to his grand design; but be that as it will, the book here mentioned is the only one of the kind wrote by him.

It is observed by physicians both antient and modern, that a spitting of blood usually foretells an exulceration of the lungs; and the consequence is without doubt extremely natural; but yet we see many persons subject to this disorder, who nevertheless live many years free from a consumption; and die at last of mere old age or some other distemper. But it concerns all who are subject to an hæmoptoe, to take early care in the use of the nonnaturals and the administration of remedies, to prevent its attack when absent, and remove its symptoms when present.

The tender frame, &c. The phthisis is most frequent in young persons, as their vessels are most lax; to these it more particularly happens, if at the same time their humours are acrid and thin. The fluids are also more moveable in young persons, than in those of a more advanced age. This tendency or temperament may be known by the eye and touch: the flesh feels soft, and the skin is thin, so that the colour of the blood is easily discerned through it, and appears florid in the cheeks and lips, on the least increase of the circulation.

Long neck. The preternatural length of the aspera-arteria, renders the inspiration and expiration more difficult, a greater force being required, to draw

draw in and expel the air through this long tube. The air therefore acts with greater violence on the lungs; for as it requires this visus to facilitate its passage, it enters the bronchial vessels with greater velocity and quantity of motion, which cannot but be of bad consequences to lungs of a tender texture. The extraordinary length of the aspera-arteria, also subjects the patient to frequent coughs from the more copious secretion and greater quantity of mucus, in a long than a short wind-pipe.

Plane and narrow chest. A straitness in the cavity of the thorax gives rise also to a consumption very frequently, and that of the worst sort; it being in this case a distemper, arising from the bad conformation of the solid parts; which admits of no cure but a palliative; it being impossible to alter the shape of bones and relieve effectually, lungs labouring under great pressure and resistance to their free motion, from the narrowness and intropressure of the sternum and dorsal vertebræ; the circulation of the fluids and ingress of the air is greatly impeded by this misfortune in the conformation.

Depression of the scapulæ. A straitness on the shoulders and depression of the scapulæ is worst of all, and a most alarming symptom in a consumptive patient, as at this place the lungs are more particularly and immediately affected.

The skin white. The fine colour of the skin, mentioned by our author as a sign of a consumptive tendency, denotes a transparency of the fluids, tenuity of the vessels and laxity of the fibres; which is accompanied by a weak constitution of the whole body in general, and of the lungs in particular. This weakness in the whole system of fibres, greatly diminishes the energy of the vascular tunics, and assimilation of the chyle consequent on their action. The acrimony therefore which the blood acquires when remaining some time in the body, is not sufficiently obtunded by the admission of new

salutary chyle, properly extracted from the food, tempered and attenuated by the bland and saponaceous juices, sent by nature into the alimentary canal. For though the food be ever so well chosen and chylication perfect, yet in the condition of the vascular coats here supposed, the chyle cannot be entirely mixed with the blood, thus renewing its salutary and benign qualities. A morbid laxity of the pulmonary fibres in particular, will certainly produce a depraved disposition in the fluids, as the sanguification is more especially performed in the vessels constituted of these fibres. The blood therefore by these means, may be endued with all the evils mentioned in the Aphorism, and become florid, thin, dissolute, acrid and hot.

Mind chearful. It has been observed by most medical writers, that almost all persons of a consumptive habit, are blessed with a lively imagination and chearful temper; but whether this temperament of the body affects the mind, or the mind the temperament, favours too much of a metaphysical disquisition to be considered in this place.

B In that weakness of the bowels. Weakness of the bowels renders the chylication imperfect, consequently if the aliment is of too tenacious a texture, a depraved chyle enters the blood, crudities arise and obstructions may be formed; which are more likely to fall on the lungs, as here nature endeavours greatly, to assimilate the chyle which abounds with tenacious crudities, and is with difficulty driven through the pulmonary vessels; a frequent respiration then will be present, and all the train of symptoms liable to follow. Through this weakness of the abdominal viscera or intestinal tube, the fæces are not driven with sufficient force to their place of exit; acrimony is generated from their remora in the body and putrescency consequent on stagnation: this acrid putrescent disposition thus conciliated to the humours, may affect the lungs
and

and erode their vessels, producing ulcers, consumption and death. In this state of the viscera, a strict regimen in diet should be observed; and therefore we see the necessity, of confining young persons to aliment of a mild nature, easy of digestion in the primæ viæ and assimilation in the vessels. Hippocrates says that the firmness of texture in the aliment, should be in proportion to the age, labour and exercise, lest the blood suffers by a depraved chyle.

A small Fever. If a person is afflicted with a small fever and difficulty of breathing, particularly after meals, we may pronounce him affected with weak lungs, and that the chyle is not easily transmitted through them. This heat and quick respiration (caused by the increased quantity of the blood, from the addition of new chyle in proportion to the food received,) is not usually perceived till an hour or two after the time of eating, as the chylication then proceeds swiftly and the blood receives its supply. Though in some who are troubled greatly with wind after eating, the distension of the stomach immediately occasions a great sense of fulness, and uneasiness in breathing. A person in this case appears weak and his skin tender and flaccid: And though he is easy and seems in health at any distance of time from meals, yet on the least unusual motion, his pulse and respiration are greatly increased; he labours also under inexpressible uneasiness and anxiety at the heart: this symptom denotes that the solids and fluids are not in æquilibrium. The heart vibrates and palpitates, being greatly oppressed in transmitting the blood, accumulated in it, by the augmented impetus and improper exercise; as also in impelling the fluids overwhelming the lungs, through the pulmonary arteries; the air then is called in to its assistance, and a quick respiration or panting is remarkable. In this condition of the habit we see, that the blood is driven with great
difficulty

difficulty through the lungs, and except timely and prudent advice be followed, and the symptoms happily alleviated, an obstruction will soon be formed, as the blood will (in all probability) cease to be entirely transmitted through the pulmonary vessels.

Dry Cough. This obstruction once formed, produces a dry cough, from the endeavours of nature to dislodge the offending matter; the cough is at first dry, as a rupture of the obstructed vessels is not at first effected. By the weakness of the viscera (considered under this head,) and the consequent acrimony and putrescency of the fæces, may be induced such an erosive quality on the whole mass, as greatly to endanger the cohesion of the fibres, constituting the obstructed vessels. An hæmoptoe or spitting of purulent or sanious matter, will then be present, according to the violence or duration of the obstruction. If these symptoms appear, you may fear the approach of a consumption; and if the other circumstances are present with them, you may be under great apprehensions for the welfare of your patient, the texture of the fibres and bad conformation of the solids, conspiring in the same end with this dreadful disorder.

Propensity to sweat. Profuse sweats breaking out in the night-time and after sleeping, denote both a great laxity in the fibres and dissolved crasis of the blood: the nocturnal sweats being more profuse, as each of these united circumstances is greater.

F. In that age when, &c. Our author here thinks, the chief danger of a consumption to be between the sixteenth and thirty-sixth year; after the fibres have arrived at their greatest degree of extension. Some cease to grow at sixteen, others not till after twenty. The fibres have not acquired their full solidity, density and vigour till after the thirtieth year, which age is generally allowed to be the prime or acme of the human constitution; the author here delivers thirty-six years, as the longest time

time possible for the fibres to continue their extension, or rather that if a person lives six years after the full increase of his stamina free from any consumptive taint, he may relinquish all apprehension of the disorder.

However, a late case proves this as well as all other general rules, liable to particular exceptions. A woman about sixty years of age, afflicted with a consumption and exulceration of the lungs, applied for help; a purulent spitting by her own account had appeared, soon after she perceived herself out of order; she was now extremely weak and short breathed. By the assistance of a perpetual blister, mild pectorals and balsamic diluents, the spitting grew better coloured and the cough less troublesome, all the symptoms common to the disease were also much alleviated, but being unable to confine herself to a proper diet, and having a violent craving after every thing she saw swallowed by the people about her, whether beef, spirituous liquors, &c. she perhaps prevented a cure, or at least greatly increased the violence of the evil by her own obstinate folly. She continued in this way near half a year, at which time she was stronger and better, than when she first desired assistance, though much worse than when a fortnight had elapsed after the application of the blister; for no longer was she careful in observing her regimen and medicines. Her cough, spitting and hectic fever, were now greatly increased, and all the symptoms proceeded with great rapidity, to effect her final dissolution in about a month. There is however this conclusion to be drawn from her case, that though it is possible for persons advanced in age to prove consumptive, yet, on account of the greater strength and solidity natural to their fibres, the distemper neither proceeds so fast, nor is so difficult of cure.

When the full increase of stature is obtained, the fibres have but just undergone their greatest extension
and

and remain in a relaxed and weak state, till they have been strengthened by proper nutriment, from aliment capable of an easy and perfect assimilation. In process of time, the fibres acquire strength and vigour sufficient to digest a more tenacious diet and sustain labour, both which might have oppressed the lungs, if used immediately after the full increase of stature. The pulmonary vessels at that time, not being able to support the impetus of the blood augmented suddenly or unequally. This weakness (if proper care be taken) is remedied by time. Persons of a full age and robust habit, are not so subject to hæmoptoes, or hæmorrhages of any kind, as young people, and those of a delicate system of vessels, which yeild more easily to the impetus of the fluids impinging on their sides.

Δ. An Hereditary Disposition to this particular disease, is often a miserable legacy from the parent to the child. The hereditary labes is communicated either in the temperament of the humors or conformation of the solids. Particular families are often seen consumptive on this account. The bad conformation of the solid parts, is most commonly the cause of an hereditary consumption; this kind is most difficult of even palliation, the cure being impossible. When it proceeds from a bad temperament of body which becomes hereditary, and entails this disorder on posterity, the cure is not so difficult, as the temperament of the humors may be greatly changed by regimen, medicines, and a prudent use of the nonnaturals; whereas an amendment of the deformed solid parts is not to be hoped for. This as well as other diseases, which become sometimes hereditary, has been known to afflict the grandson and not the son. It may seem strange that the hereditary cause appearing in the father should lay dormant in the son, and yet be by him communicated to the grandson; but however unaccountable this may be thought, it may certainly happen

happen and be rationally accounted for. Let us suppose a bad conformation of the thorax hereditary in a family, and one of this family afflicted with a phthisis on that account; his son fearful of the consequences attending such an hereditary misfortune, is regular, temperate and rides constantly, thus hoping to escape the impending evil. If he succeeds in his purpose and lives till after thirty in this prudent method, his lungs will have acquired such strength and firmness, that his death may be at last effected by old age or some other disorder. Although the son may have escaped the hereditary disease himself, yet the bad conformation natural to the family may be communicated to his offspring, and in the grand-son produce the family disorder, by means of an intemperate life, imprudent prophylaxis or occurrences both inevitable and blameless.

Here consult What has been delivered at the places cited. The diseases of the solid simple fibre (24.) may produce this disorder, from too great weakness affecting the lungs with difficulty of breathing, cough, and the subsequent symptoms; the fibres are liable to break from their excessive debility, whence the event. (26.) The acid habit (60.) also generates a weak fibre and may produce the consequences related (64.) A bad nutriment may also cause this distemper (48.) The glutinous tendency of the humors (69.) may also be a cause of obstructions in the lungs and a subsequent Phthisis.

All the causes of putrescency may occasion a consumption, from the alkaline tendency (76.) whence erosion of the lungs (86.) from the acrimony of the humors.

The increased motion of the blood may produce a consumption, whether the fibre be too rigid or too lax; if too lax, the vessels in the lungs may be ruptured and extravasation with exulceration ensue: This may be the case in consumptions arising from
crying,

crying, singing, shouting, &c. If the fibres are too rigid, an increase in the moment of the blood may bring on a pleurisy, peripneumony, inflammations of the mediastinum, diaphragm, &c. Whence suppuration of the lungs and incurable phthisis. Other inflammations occasioned by the too great moment of the blood, accompanied with rigidity of the fibre, and producing great suppurations, may cause this evil from resorption of purulent matter into the mass of blood.

The diseases of a Plethora (106.) may also be the origin of this malady, as they will produce obstructions with their consequences.

I. A retention of any usual excretion, especially of the sanguineous kind, and in plethoric habits, will produce many of the consequences already described. An interruption of the menstrual flux in women, and of the hæmorrhoids in men, increases the quantity and moment of the blood; whence extravasation and suppuration may afflict the lungs. Persons after the loss of a limb are very apt to become plethoric; for as there is in this case less demand for nutriment, and that often without any diminution in the appetite, a disease from fulness may be the consequence; this is most likely to happen to soldiers and sailors, who often lose their limbs by accidents, being themselves in perfect health, so that their appetites and juices are quite natural. The disorder from retention of the necessary evacuations, are most likely to produce hæmoptoes or rupture of the vessels in the spring season; for at this time, the vessels are naturally distended by the influence of the season of the year, any retention therefore and congestion of humors, happening at this juncture, will greatly augment the dilatation of the vessels, and by that means may produce a disruption of the fibres. To obstructed virgins this often happens in the spring especially, for on the retention of the menstrual-flux, a difficulty of breathing

ing and spitting of blood is very common, which if not remedied in time, may become the origin of an incurable phtifis. However an hæmoptoe of this kind is not usually esteemed so dangerous, as those incident to men, to whom it may happen from many causes at this time. In women often is seen at the monthly period, a blood-spitting in place of the menses.

2. Any great force brought on the lungs, may occasion a consumption. By the inflation of musical wind instruments, singing and shouting long continued, the glottis is kept continually strait, and the free passage of the air to and from the lungs prevented; if this is too often repeated, obstruction and disruption of the pulmonary vessels may ensue. Of any exercise which requires a violent and frequent respiration, this disorder may be the consequence. If a weak youth plays or runs immoderately, the moment of the blood in the lungs will be too much increased and an hæmoptoe occasioned. Excessive feasting is dangerous for the same reason, as the lungs are greatly employed in assimilating the chyle. The pulmonary canals are in the last instance oppressed with new chyle, and if weak, may undergo a disunion of their fibres and extravasation of the fluids.

3. By a diet of the acrid, saline and aromatic kind. All gluttons expose themselves to great danger of a consumption, as they not only devour a great quantity of food, but also delight in savoury sauces, or an acrid quality of their ingesta; some also at meals, swallow a glass of wine between every mouthful, which with the flesh-meat we English usually feed upon, conspires greatly in producing all these evils already so often described, the lungs not being able to sustain so great an increase of impetus in their fluids.

By any disease whereby, &c. All the distempers which from a rarefaction and increased heat of the
blood

blood generate acrimony in the body, produce this disease; which is one reason why the plague, small-pox and fevers of all kinds, so often terminate in the phtbifis. There is also another circumstance attending acute disorders, which may produce a consumption, (viz.) the great debility and universal laxity of the fibres, which these evils (especially if tedious or violent) leave on their departure. The scurvy may produce a consumption, both from the fever which it excites in many, and the acrimony of the humors with which it always is united.

S E C T. MCXCIX.

HENCE (1198) it arises with a gentle pain, moderate heat and confined oppression perceived in the thorax; the blood flows out for the most part florid, scarlet, frothy, with a noise of the lungs, with the fibres, membranes, arteries, veins and bronchial vessels; with a soft, small, fluttering pulse; panting; a salt taste having been before perceived in the mouth.

An hæmoptoe may be foretold, if the patient cannot sleep in quiet, tosses about in bed with inexplicable inquietude, straitness in the chest and difficulty of breathing. Before the blood-spitting all these symptoms attend, from the too great distension of the pulmonary vessels. A light cough first appears chiefly in the morning, because, by the supine posture and rest of the body in the night-time, any matter offending the lungs, has had time and opportunity to accumulate itself. The cough is followed with a spitting of phlegm streaked with blood at first, afterwards it appears frothy and of a scarlet, florid colour; the admission of the air with the blood
and

and expectorated phlegm being the reason of this its colour and appearance. Blood might be spit out of the mouth, and proceed from the fauces, but this might be effected without a cough, and if occasioned by the straining of these parts in violent coughing, might then be distinguished by a slight inflammation and foreness of the part: A quinzy may also produce a blood-spitting, and then the place of extravasation is evident enough. Blood can never be brought up from the Lungs without a cough, and a hæmoptoe of this kind is known by the preceding dyspnea, soft pulse and particular scarlet colour of the extravasated matter.

Noise of the lungs. A noise or rattling in the throat during respiration, is one of the latter signs, proceeding from a copious extravasation of matter into the bronchial vessels. The expectoration of fibrils and membranous fragments with the spittle, is also one of the last and alarming symptoms, as it denotes a great disruption of fibres and destruction of substance.

The quantity of blood spit out, is greater or less, according to the size of the vessel burst and danger of the patient; the ruptured vessel in some is so large, that the patient is in danger of immediate suffocation by the quantity of extravasated liquor.

All obstructions of the lungs, are attended with a soft, small pulse, for when the respiration is impaired, the impetus is diminished of the blood too long detained in the lungs. The pulse is also quick, from the impeded passage thro' the lungs and frequent contraction of the heart consequent on any considerable obstruction; a quick respiration or panting is called in now by nature, to facilitate the blood's passage thro' the pulmonary vessels; and as no great quantity, can pass into the aorta at a single contraction of the heart, the pulse continues soft, frequent, and small. A salt taste in the mouth, is occasioned by the acrimony abounding in the fluids.

S E C T. MCC.

THE cure is effected (1), by a copious venæ-section every third day to the fourth time, (or repeated) till the inflammatory crust entirely disappears. 2. By refrigerating, incrasating, stiptic and demulcent medicines, used a long time and united with mild balsamics. 3. By the six nonnaturals so conducted, as to be most opposite to the causes mentioned (1198); and chiefly by continually persevering in the mildest diet and manner of life, to which purpose a milk-diet is the best adapted. 4. By correcting the specific nature of the cause or particular disorder.

Stiptic remedies are improper; the impetus and quantity of the blood is first to be diminished, in proportion to the size of the vessel burst, and force of the circulation; by this, the moment of the blood is moderated, and the quantity of liquor extravasated into the lungs, proportionally diminished. It is of little signification to bleed in small quantity; let the orifice be large and fifteen or twenty ounces lost. This method must be understood to respect the beginning of the disorder, or first appearance of the hæmoptoe, when the patient is full of flesh and fluids; for when the ulcer is form'd and pus generated, all venæ-section is exceeding prejudicial, except in particular circumstances, hereafter to be treated of. The blood-spitting will in great probability be happily removed, if skillful and timely advice be followed. It is of little moment to direct which vein shou'd be opened in particular, for revulsion is here impossible as the blood of the whole body passes thro' the lungs; the diminution of the quantity oppressing

pressing the vessels is the efficacious circumstance. Ligatures applied to the arm and thighs, compress the veins (which in general are more superficial than the arteries) and retard the blood returning to the heart: The oppression therefore on the heart and lungs will be less, as the quantity of fluids so detain'd in the limbs is greater. But, as this compression long continu'd on one particular limb; might bring on a mortification from the impeded circulation thro' it, so, on the first appearance of stagnation and great uneasiness in the part bound, let another limb be tied in the same manner, and the former loos'd. In all hæmorrhages from the bursting of one large artery or many small ones, ligatures shou'd be always ready.

3. By refrigerating, increassating, &c. The medicines shou'd be of a cooling nature, and such as conspire to assuage the increased moment of the fluids; for in general, wherever an hæmorrhage appears, is present also too great an impetus in the circulation. Farinaceous emulsions and mild decoctions, are medicines well adapted to answer this third intention. Increassants are particularly useful, in hæmoptoes proceeding from a thin, erosive quality in the blood; the broken crasis of which may be thus mended, and the hæmorrhage stopt. Mild gelatinous substances, as harts-horn or calves-foot jelly are remedies of this class; the arabic emulsion is also an excellent demulcent and increassant. By these means a mild lentor is conciliated to the blood, which in general is to be attempted, as the greatest part of (if not all) hæmoptoics, are afflicted with a thin broken crasis of the fluids. Stiptics are violent medicines, which ought not to be administer'd, the mild gellies being in this case, the most salutary astringents. The property of those medicines ranked under the class of stiptics, is, to coagulate the humors and constrict the vessels: But as stiptics act chiefly by constriction, an inflammation of the lungs

may succeed the stopping of the hæmorrhage by their use: Obstruction and inflammation being most likely to form and suppuration attend, around parts previously wounded. Stiptic remedies therefore should never be exhibited, except in cases of great extremity, or before many repetitions of phlebotomy. A mild milk-diet must be strictly observed, to prevent all tumult in the circulation.

4. By correcting the specific nature of the cause. We are here directed, to examine carefully into the circumstances attending the patient, before he was affected with any disorder in the lungs; by this means will be known, whether the hæmoptoe was produced by the retention of any habitual evacuation, as of the hæmorrhoids in men, or the menstrua in women; and the patient is to be treated accordingly. It is doubtful whether any great advantage will accrue from such an enquiry; for tho' we find the hæmoptoe evidently proceed from the retention of the menses, we cannot give an emenagogic or stimulating medicine, for fear of increasing the moment of the blood and quantity of the hæmorrhage. However, this enquiry ought to be made, as it may assist us in forming a just prognosis of the event; for if we succeed in stopping an hæmoptoe, arising from obstruction of the menstrua, and find afterwards the menses appear, we may hope effectually to cure the patient.

S E C T. MCCI.

WHEN once this has happen'd and is reliev'd (1200), phlebotomy is to be administer'd every six months for some years, by degrees diminishing the quantity.

On the first appearance of the hæmoptoe's being stopped, the patient shou'd begin to use a moderate exercise,

exercise, to strengthen the fibres of his lungs and prevent a plethoric tendency in the habit. For this reason, the venæ-section shou'd be repeated every six months at least (tho' no signs of the hæmoptoe appear), and left off entirely, by a gradual diminution in the quantity.

S E C T. MCCII.

BUT if on account of the redundancy of the evil, (1198) improper application of stiptics, or neglect of the true method of cure (1200), after the blood-spitting should arise, a difficulty of breathing, continually increasing, vague horror, heat and redness of the cheeks, dry cough, hectic fever, greater thirst, weakness and a sense of weight in the thorax, it signifies, that the wound of the hæmoptoe has changed the matter already collected about its lips, and under the crust of dried blood, into pus; that the collection has become a concealed vomica, which when it breaks becomes an open ulcer of the lungs.

The use of a stiptic remedy in this disorder, is certainly much to be condemned; but there are circumstances which require its exhibition: Let us suppose a physician called to an hæmoptoe so violent, that venæ-section, ligatures, refrigerating medicines, and every judicious application, avail nothing; what must he do? The hæmoptoe still continues, and the quantity of blood extravasated into the lungs, may soon be so great, that suffocation and immediate death may impend. The physician therefore must endeavour to procure relief, by some powerful stiptic at all events; sixty or seventy drops of the tinctura saturnina must be given in cold water. The hæmorrhage may very probably be thus stopped,

tho' the patient may in process of time, proceed regularly thro' all the stages of a consumption. This tincture is a fine medicine, cooling and contracting the blood; but its use is never to be advised in a hæmoptoe, except in some such desperate case, as is here supposed. If you can avert the immediate acute danger, by no other means than that of the disorders passing into a chronic evil, you are to bring on the lingering illness, and prolong life as much as is in your power. For however dreadful the prospect may be, there is still a possibility of the patient's recovery. In such a case therefore and no other, are astringents to be used, and not even then, 'till all other approved remedies have been tried in vain.

The balsamic electuary of the pharmacopœia pauperum of the college at Edinburgh, is excellent in any extravasation or ulceration of the lungs, being a mild detergent and balsamic. Persons of this constitution are apt to spit blood, on speaking loud and violent exercise, especially in a cold air; for in this case the perspiration is diminished at the same time in which the motion of the blood is increased, which cannot but be very pernicious. When an hæmoptoe is present, the patient shou'd be kept very quiet, in a chamber warmed by a moderate fire, that the perspiration and equable motion may be properly preserved; every thing increasing the impetus of the fluids, is pernicious. The most light and insipid aliment must be observed, easy of admission with the blood and without stimulus; fresh milk or that made sower by art, is a very proper aliment, as it is without stimulus, and has been previously concocted, in the vessels of the animal from which it is taken. If a more solid aliment is receiv'd, the lungs are oppressed with difficulty in breathing, to the continuance of the disorder if present, and renewal of the hæmoptoe if absent. The food should be given in a small quantity, and often repeated. The first hæmoptoe may be in all probability relieved, without

without any bad consequence by an early administration of the means related ; and the physician has nothing to fear, if his patient after the disappearing of the hæmoptoe, is free from fever, oppression of the breath or cough. But if the patient should become plethoric, by not observing a proper diet, or if imprudent advice has been followed, there is great reason to fear the disruption of a larger vessel, and stagnation of the extravasated liquor, in the cellular substance of the lungs. He then complains of a difficulty in breathing, pants, shivers, with a dry cough perpetually irritating. These symptoms denote, a collection of the extravasated liquors in the lungs, and beginning suppuration. The dyspnæa arises from a compression of the bronchial vessels by the stagnating matter, which is at last converted into a putrid liquamen : Then arises the hectic fever, the paroxysms of which appear in the evening. Great flushings in the face, and redness of the lips and cheeks, appear in the afternoon, as the patient will generally dine with the family. If a consumptive person eats a plentiful meal, his stomach will be greatly distended, thro' the eruption of the air contained in the food, and excessive laxity of his fibres ; the blood-vessels therefore, which convey the blood to the inferior parts of the body, will be morbidly compressed by this preternatural size of the stomach ; consequently the blood will be detained too long in the superior parts, and produce pain in the head, tumid appearance in the face, with redness of the lips and cheeks. This inconvenience might be prevented, by exhibiting the food in small quantities often repeated. The evening exacerbations cannot be prevented entirely, as they are owing to the course of nature, and absence of the day ; however they may be moderated, by using the fluids prescribed, particularly at that time.

S E C T. MCCIII.

2^o **T**HIS collection of matter, may arise from a peripneumony terminated in an apof-tem, (832. to 843. 867) besides the causes mentioned (1198); it is known by the same signs (832. 843. 867.)

S E C T. MCCIV.

AN empyema also (1185.) may corrode, dissolve and consume the lungs, so that the same distemper may arise, as if they had been consumed by their proper ulcer. (1188. No. 4.) It is known by the symptoms there delivered.

Where it is taken notice of in its proper place.

S E C T. MCCV.

FROM whence it is evident, what are the diagnostic signs of an ulcer of the lungs, though concealed. How different its causes, kinds, and how various the phtthisis.

Wandering horrors, difficulty in breathing, tickling and dry cough, are signs of a beginning consumption. The ulcer is known to be confirmed, and the pus to have acquired a degree of acrimony, beyond that of laudable pus, by the thirst, hectic fever and increased malignity of all the other symptoms. Its difference and causes will be evident to all, who understand and recollect the preceding doctrines.

S E C T. MCCVI.

THESE effects of an ulcer already formed in the lungs but concealed, called a vomica, are commonly to be observed; the acrimony, quantity and putrescency of the pus increasing every day, the dilatation of the membrane containing it, its corrosion, maceration, the conversion of the blood and bronchial vessels into pus; the purulent consumption of the whole lungs, or one of its lobes; a cough without intermission, either dry, or producing by expectoration, nothing but parts abraded by the agitation of the cough; the conversion of the blood flowing to the ulcer, into pus, propagation of the vomica, and its rupture into the tubes of the larynx; a suffocating secretion of pus for some time, or else continually forced up with coughing, in great quantity, sinking in water, sweet, fat, fetid, white, red, yellow, livid, cineritious, strigentous, placed on burning coals emitting the stinking smell of burnt flesh; rupture of the vomica into the cavity of the thorax, whence the most difficult respiration, and appearances of an empyema (1188 N^o 4). Then the worst respiration, consumption of all the blood and chyle into pus, lost preparation of nutritious juice, an entire wasting of all the solids, hectic fever, with a small and languid pulse, violent heat of the superiour parts flushing in the cheeks and hippocratic face, inexpressible anxiety especially in the evening, great thirst, profuse sweats in the night, red pustules, inflation of the hands and feet from the part affected, great weak-

weakness, hoarse voice, falling of the hair, itching over the whole body, with watry pustules; yellow, stinking, purulent, cadaverous, frequent, weakening diarrhea with a tenesmus; suppression of the spitting, death. Whence these rules may be deduced.

Pus generates pus, macerates, erodes and converts all the contiguous vessels into its own nature, whence the continual propagation of the evil. It seldom happens that both the lobes of the lungs are at the same time afflicted with a vomica. The cough now produces nothing. The lungs are irritated to frequent and ineffectual contractions without any expectoration of the offending matter, which is contained in a cyst not yet supposed to be broken. The pus contained in the vomica macerates and erodes the fibres of the lungs, effecting a disruption of the vessels; it then becomes an open abscess, the pus is propelled thro the aspera arteria, and a ruptur'd vomica is known to be present by the conspiring symptoms. There have been instances of persons suffocated by the rupture of a vomica, tho' this is a rare case, proceeding from the great quantity and impacted consistence of the pus. If you throw some of this purulent spitting into a vessel of water, it sinks to the bottom, and is thus distinguished from common phlegm or mucus, which is specifically lighter than water. There is now to be perceived a stinking breath, the spitting thrown on live coals, stinks like roasting flesh burnt at the fire, from the fetid oil common to both expelled by the fire. The pus is ejected by the mouth from the cavity of the thorax, a terrible putrefaction spreads itself in the lungs, and thus is destroyed a viscus, the assistance of which is particularly required in sanguification; on this account the nutrition of the body begins to languish on the first confirmation of the disorder. The assimilation

milation of the aliment into good juices decreases as the evil spreads; till at last it is next to nothing: before the nutrition is entirely destroyed the patient dies by the cessation of respiration through loss of substance in the fibres of the lungs. The purulent spitting seldom or never cures the patient by evacuating the pus; as expectoration is a most precarious evacuation, and the least suppression of it renders the matter sanious, and increases the evil by the erosion of new fibres. The sweats proceed from the dissolved crasis of the blood and laxity of the cutaneous fibres; the pustules are produced by the acrimony and extravasation of the fluids; and the hairs fall off, from the deficient nutrition of the body; through this impaired nutrition, the patient becomes lean, exhibiting the bones almost naked. A colliquative diarrhea occasioned by the acrimony of the putrescent humors, now comes on, so that at this time, the shadow of human nature remains only. This flux of the belly, is an effort of nature, to discharge the acrid matter redundant in the body; it may be considered therefore, both as salutary and pernicious; it is salutary, as it expells a great quantity of acrid matter thro' the anus, and is esteemed pernicious, as it greatly debilitates, and stops expectoration; so that the patient is in danger of being suffocated, by the quantity of purulent and sanious matter oppressing the lungs. The colliquative diarrhea with a suppression of the spitting, usually closes the dreadful scene. The rules to be deduced from these doctrines, are recounted in the succeeding sections.

S E C T. MCCVII.

1^o **A**N hereditary phtthis is the worst of all, and not to be cured, except by preventing the hæmoptoe.

2. A ph-

2. A phthisis from an hæmoptoe brought on by external violence, without any internal pre-existing fault, is (other circumstances supposed equal) the mildest.

3. The phthisis, in which the vomica suddenly bursts, white, equal, concocted pus is easily ejected, answering to the size of the ulcer, without thirst, with digestion, secretion and good excretion, may be healed though with difficulty.

4. A phthisis from an empyema, is incurable.

5. Heavy, solid, stinking, sweet spitting with the last signs, (1206) are without hopes.

1. An hereditary consumption cannot be cured, on account of the bad conformation its most frequent cause; or the fixed temperament of a fatal tendency; but it may be prevented, by the proper administration of the six non-naturals. This has been sufficiently considered in the comment on the (1198) section.

2. A phthisis, from an hæmoptoe produced by external violence, is certainly the least dangerous, as there is no hereditary labe, bad conformation, or procatarctic cause previously existing in the blood. But this must be understood to respect a phthisis, in which the proper means have not been made use of, to cure the first extravasation, for if the hæmorrhage or hæmoptoe which must first be present, arising from the immoderate exercise, fall or any other external violence, cannot be entirely relieved, by the use of proper remedies, there is still less hopes of curing the evil farther advanced, and now become a phthisis.

3. The phthisis in which is suddenly broken, &c. If an abscess of the lungs, proceeding from the causes mentioned, (1198) should suppurate and discharge

discharge by expectoration, a good laudable pus, within one or two days after the signs of suppuration, the patient may recover, if proper care be taken. Absence of thirst after the evacuation, signifies, that the patient is free from a putrid fever, consequently that the vomica is thoroughly cleansed. If the matter ejected is in proportion to the size of the abscess, there will be less fear of new erosions, from the acrimony of stagnating pus remaining in the lungs; but we cannot judge with any great exactness, of the size of the abscess formed, and the quantity contained in it, which ought to be expelled; the only probable method of estimating this quantity, is, to compare the violence of the preceding symptoms, shortness of breath, degree of fever, or oppression on the breast. There is good reason to hope for the patient's recovery, if all the symptoms are remarkably relieved, and continue to diminish, after the discharge of matter. A free respiration is a most promising sign.

4. A consumption from an empyema is esteemed fatal, from the quantity of pus, and great improbability of its being sufficiently evacuated.

5. Heavy, solid spitting with a diarrhæa, is a most fatal symptom; the disorder is at this time near its final period.

S E C T. MCCVIII.

AFTER the vomica is formed in the lungs, the medical indication directs, to bring it to maturation and disruption; which is effected by a milk diet, the motion of riding, warm vapors and expectorating medicines, when it is burst,

1. To fortify the blood against the purulent infection.

2. To

2. To evacuate the ulcer of all its pus, as soon as possible, cleanse the lips, and unite the fibres.

3. To administer that kind of aliment, which requires the least force to impell it thro', and assimilate it in the lungs, but yet, such as is most apt to nourish, and least conducive to the formation of pus.

An inflammation of the lungs, if not seasonably discussed, naturally produces a vomica, and on the rupture of the membranes enclosing this vomica, a phthisis pulmonalis is confirmed. A milk-diet therefore must be used, when we perceive a vomica formed; milk promotes the maturation and rupture of the abscess, as it is of an emollient or relaxing nature: It is the most likely of any food in this case, to produce a laudable suppuration, and prevent the matter from becoming sanious or ichorose; for it supplies the blood, with parts of a mild and acerbent disposition. The sooner the membranes enclosing the vomica break, and the abscess becomes an open ulcer, the better is it for the patient, for the longer the contents of the vomica remain enclosed within their cyst, the greater will be the quantity and acrimony of the pus formed; whereas, if a disruption and evacuation of the membranes, is effected soon after the pus is generated, the less acrid and copious will be the matter of the vomica, and a sufficient evacuation, with a perfect consolidation of the ulcer, will more probably ensue.

By the concussion of the lungs in riding, a disruption of the containing membranes may be obtained. These intentions are also assisted by an inspiration of the warm vapour arising from emollient decoctions, which relaxes the fibres, lubricates the lungs and aspera-arteria; they may be kept continually steaming in vessels placed near the patient, or taken in at the mouth by means of a funnel.

This

This warm vapor may be esteemed one of the most effectual remedies used in a phtthisis, as it acts immediately on the parts affected. As soon as the vomica is burst, we must endeavour,

1. To fortify the blood against the purulent infection, from the absorption of the virulent matter, which may remain in the vomica; antiseptics are now to be administered.

2. To evacuate the ulcer. The lungs are of a very fungous nature and full of cells, wherefore sinuses are liable to form, and the matter stagnating in these cavities, is very obnoxious to resorption. We are to endeavour at the entire evacuation of the pus, and prevent as much as possible the generation of new. The emollient vapour is also very serviceable in this intention, promoting greatly the free expectoration of the pus; a mild acid should now be added to the decoction made use of, which will moderate the putrescent quality of the pus formed, and restrain in some measure its tendency to increase; the ulcer may be greatly cleansed, and its consolidation promoted by the use of this excellent remedy.

3. To administer that kind of aliment, &c. The diet now used should be gratefully acid, easy of digestion in the primæ viæ, and that which requires the least force of concoction, for its assimilation into blood when received into the circulation. The medicines proper at this time, are compounded by a judicious union of antiseptics, expectorators and mild balsamics. The patient is also to be purged with caution, after the first rupture of the vomica, to determine part of the absorbed matter to the anus. Glauber's with Polychrest salt, decoction of tamarinds with fenna, and Sydenham's purging draught, are here excellent in their kind. Except the most accurate regimen of diet be instituted and observed, medicines will be prescribed to very little purpose. The food should have been previously concocted
when

when taken by a phthifical perfon, otherwife his weak veffels will be unable to convert it into good chyle. The fame food which in an healthy perfon produces good chyle, is perfectly concocted in the veffels, and fupplies the blood with an addition of its own healthy nature, becomes pernicious to a confumptive perfon, by the admiffion of the morbid fluids already in the body; care therefore fhould be taken, to render the food of fuch a nature, as to correct (as much as is poffible) the unhappy tendency of the difeafed humors. Milk and broths are proper in this cafe, as they have been both already concocted; the one in the veffels of an animal naturally, and the other by an artificial extraction and preparation of the nutrititious parts. To broth fhould be added a fmall quantity of fome mild and grateful acid to correct the alcalcfcent tendency of this animal diet.

S E C T. MCCIX.

THE firft indication is fufficiently answered, by the help of medicines gratefully acid and faline, the vulnerary herbs and mild balfamics, ufed long, in great quantities and in many forms.

The acid and faline medicines are antifeptic, affuaging the putrefcent infection of the blood. The vulnerary herbs in decoctions, and mild balfamics in any convenient form, are proper. The herbs and balfamics here ufed, muft be thofe which are without ftimulus, and excite no heat or tumult in the body, for fuch a quality in them, would deftroy their otherwife falutary effects; the heat of the body being already too great, according to the degree of putrid fever prefent. The Arabic emulfion is a fine balfamic of this clafs. The common efculent herbs as
lettuce,

lettuce, spinach, &c. should be constantly and prudently mixt with the diet.

The balsamic medicines are here directed to be used in many forms, as one may be better adapted to the particular constitution of the patient than another, and that the most useful may be found. But if the form at first prescribed agrees well, and contains a medicine effectually answering the indication present, its alteration is not to be advised. A proper decoction, the arabic emulsion and balsam of Locatelli, may be used separately or together, for a considerable time, and a change of them is entirely needless; it being a practice very disagreeable to physician, patient and apothecary, to make frequent alterations in the medicines ordered. It may here be remarked, that nothing more effectually discovers the ignorance of the prescriber, than such an unsettled method of proceeding: Indeed if new and contrary indications frequently arise, such a proceeding is unavoidable, but in a chronic disorder, this is seldom or never seen.

S E C T. MCCX.

THE other (indication) is answered, by liquid, diuretic medicines, exciting the cough, external and internal; by constant motion, riding and sending the patient into the country; also by the help of balsamic abstersgents, internal and external, and by consolidating with healing paregorics.

This indication requires the evacuation of the pus and consolidation of the ulcer; the pus is evacuated by coughing; this is promoted by the lac ammoniacum, acetum scilliticum, decoction of marrubium album, tussilago and other medicines which enter the smallest vessels. The lac ammoniacum is a warm

medicine and excites the cough; therefore at the time that this is used, the patient should drink plentifully of some balsamic and mild decoction, which renders the matter fluxile, and enters the smallest vessels; otherwise, when the cough is excited, nothing will be brought up, consequently, much trouble is brought on the patient to little purpose, the lungs are still farther abraded and the ulcer increased, by the unnecessary and ineffectual distraction of the fibres. By the prudent use of these medicines, thus conspiring in the chief intention, the cough, which is the effort of nature to relieve the lungs, will be promoted, and rendered effectual in discharging the offending matter; the great advantage of this end if happily accomplished need not be farther insisted on.

By constant motion, &c. The best internal medicaments may be of no use, except a constant, regular and well-chosen gymnastic physic is observed. Few phthisical persons recover that live in cities, the sulphureous steams from the smoak of coal-fires constrict the lungs and prohibit expectoration. Let the afflicted person seek the country and ride on horseback; this is the most effectual of all remedies in cleansing the lungs. While the patient is carried on horse-back the matter is moved in the lungs by the gentle agitation, an easy cough is excited attended with a free expectoration; the shortness of breath is never so troublesome at this time. The gentle motion of vection assisted by the use of diluent, balsamic expectorants, cannot but be of great service; and though the physician advising this prudent method, may not succeed in his most sanguine wishes, of restoring health and new vigour to his patient, yet he cannot fail of receiving the satisfaction, which a palliation of the symptoms, prolongation of life, and rendering the disease less terrible and painful, must necessarily produce. After exercise let the patient sleep if inclined to it. It must also be considered
that

that though the cough is in itself salutary, and the only means whereby the lungs can throw off the oppressing matter, yet, if it is constant and violent, the fibres are still more broken, and the strength of the patient greatly exhausted by it. The syrup of poppies is in this case very proper, to procure sleep and quiet the cough. This syrup rather promotes expectoration than prevents it, and is therefore preferable in this case to the tinctura thebaica, which with the other anodynes in general, are thought to suppress expectoration. This mild and anodyne syrup, excites neither fever nor thirst, and may be taken every night on going to bed, as sleep is very necessary to persons in this disorder.

S E C T, MCCXI.

THE third indication is provided for by the use of ptisans, broth and milk.

This section needs no explanation; for as we have already considered the medicines proper for the patient, the regimen must have been considered also; for the regimen and medicines are so closely united in this disorder, that when the one is perfectly described the other cannot be omitted.

S E C T. MCCXII.

THE palliative cure of this disease, respects chiefly the cough, anxieties and diarrhæa.

The cough is very painful to the sick; but as this is a motion excited by nature to very salutary purposes, how can we attempt to stop it, and listen to the earnest intreaties of the patient; the noxious cause of the disorder cannot be expelled without it. It may be moderated by mild paretics, which is

necessary when the cough is violent and dry. The remedies so frequently seen on apothecaries files, intended for the relief of persons in this disorder, marked Linctus for the cough, oily mixture for the cough, are prescribed in vain, as the lungs are themselves unsound. These medicines may be of some service, to a cough proceeding from a common defluxion of the mucaginous glands, but in this case, they are so far from relieving the patient, or palliating the symptoms, that they increase the fomes of the disorder. For all oils or fatty substances, (viz.) ol. amygd. dulc. sperma ceti, &c. which are generally the basis of those medicines, turn rancid in the primæ viæ, and if carried into the lacteals, cooperate with the purulent, alcalescent disposition of the humors. Antiseptics are therefore advised to very little purpose, if the patient is continually licking in rancidity and putrefaction, though it be off a baculum liquoritiæ. If a linctus must be prescribed, let it be the following or of the like nature.

℞ Syrup. Balsamic. ℥ss
 ———— ex Althæ.
 ———— c succo limonum aā ℥iss

These ingredients, on the natural dissolution of the constituent parts and separation of the principles from each other, consequent on the action of the stomach and intestines, do not tend to putrefaction, but conspire in the principal intentions here delivered. The sugar and vegetable parts tend to fermentation, and are therefore acid and antiseptic; the syrups of althæa and tolu compose a mild balsamic; the syrup of lemons is antiseptic, and corrects the cloying quality of the sugar in the syrups.

The violence and frequency of the cough, is in proportion to the quantity and confinement of the matter oppressing the lungs. The only effectual method of moderating or stopping the cough, is to
 palliate

palliate or cure the disease. By a convulsive motion of the abdominal muscles, the cough is excited, and the matter offending the lungs expelled; we know that opium is very effectual in assuaging convulsions, but as the unhappy cause remains in the pulmonary vessels, the abdominal muscles will notwithstanding its use, be stimulated to new contractions, which compress the lungs and excite the cough. Great anxieties also afflict the patient, towards the end of the disease, from the humors accumulated in, and difficult circulation through the lungs. Then often follows a suppression of expectoration, and altho' the vessels are so destitute of their due proportion of blood, it is now necessary to diminish the present afflux of humors to the pulmonary vessels, which would be immediate death; to this end venæ-section must be administered, though it debilitates, and attenuates still farther the dissolved crasis of the blood. If expectorators could be depended on alone in imminent danger, their use alone would be more adviseable in this case. Let the patient take in a warm vapor at the mouth, which is one of the most effectual expectorators, being not only a palliative of the cough and present exigency of the symptoms, but contributing also to remove the fomes of the disorder; it mixes with the pus in the lungs, renders it less acrid, fluxile and moveable by the cough, and is more efficacious than any internal medicine, as it acts immediately on the part affected.

The colliquative sweats, which appear towards the end of the distemper, are attended with excessive weakness, and are generally accompanied with a diarrhea, tormina of the bowels and tenesmus; these symptoms proceed from the dissolved crasis of the blood, and great acrimony of the humours vellicating the intestinal tunics and muscles of the anus, so that a perpetual stimulus to dejection is excited. Astringents are improper in this case as they suppress expectoration, and tho' the diarrhea is very exhausting,

ing, yet a retention of this purulent matter is still more prejudicial. Opiates of the stronger kind are better calculated to relieve the diarrhœa, and obtund the acrimony of the matter vellicating the intestines; but these also stop expectoration; in which case the diarrhœa may again return, and prove more violent than before, as nature will then endeavour to eliminate the offending matter in greater quantity by the anus. But the milder opiates, such as syrup of poppies, decoction of poppy-heads, &c. may safely be used as they relieve the diarrhœa without suppressing the expectoration.

S E C T. MCCXIII.

THESSE symptoms are relieved by a proper diet (1211), and the cautious exhibition of opiates and warm liquids.

The decoction of poppy-heads seems to be the best opiate in this last intention, as it abounds with a warm diluting liquid, besides its paregoric quality; warm diluents being great correctors of acrimony. When the distemper is thus far advanced, and this inveterate diarrhœa present, a suppression of the spitting will succeed, in spite of the most assiduous and prudent assistance. All remedies at this time prove ineffectual, and the patient's final dissolution soon closes the dismal scene.

P R O-

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