

aromatic might also be added. The patient should not be agitated with any rough medicine, on the day of taking a purgative; but after the purgative operates, a few doses of the saline mixture might be taken during the remainder of the day, and perhaps for the following day: this assists in carrying off, in a gentle and gradual way, what the purgative had begun to dislodge; it cools the tongue and mouth; helps to settle the stomach, and to determine to and soften the skin. When it is intended to act more decisively on the skin, a mixture made up with spiritus mendereri, and a few grains of prepared ammonia, as in No. 51, is more active.

Should sickness at stomach still continue, common ice or congealed water is very useful, it is extremely grateful to the mouth and stomach. In singultus or hiccup, æther mixtures, and burnt brandy, are found very valuable, but the ice even in such cases is often more effectual. Ice-cream is possessed of the same advantages, and is also nutritious. When head-ache and delirium continue, with an increased activity of the circulation about the head, leeches will often give sudden and great relief; but where the leeches cannot be procured, or where they will not be allowed, cupping and scarifying may be used with benefit in their stead. Should there be head-ache, without increased fulness in the
vessels

vessels of the head, or should the head-ache continue after the fulness is relieved by the leeches or cupping, the head should be shaved, and frequently washed with spirits, or spirituous embrocations; camphorated spirits of wine, with or without vinegar, are well adapted to this purpose. In many instances, they remove delirium and relieve head-ache; but where the embrocations fail, common ice, applied to the shaved head, will mostly succeed. The application of the ice is most useful where there is increased heat of the skin, but this is mostly the case in fever; the distress of the head will commonly yield very soon to this treatment, but sometimes return again; then the same remedies should be again resorted to, and that as often as the return of the symptoms shall make it necessary. Where the head-ache or delirium are obstinate, a blister laid over the part in pain, and of an extent sufficient to cover it entirely, will generally carry it off.

If the disease is the offspring of contagion; or if it be attended by the following symptoms, biting pungent heat of skin; a small quick pulse; hiccup or singultus; constant tendency to vomit; dark coloured crowded petechiæ; disagreeable fætor round the patient; suffused red eyes; a dirty squalid appearance of the skin;
L quick

quick and laborious breathing:* in those cases we must freely allow acids, particularly mineral acids, wine, cordials of bitters, aromatics and acids, as in the formula, No. 17, the sulphuric, the nitric, and the marine acids are those most employed. The patient should be kept very clean; the linen and sheeting frequently changed; warm vinegar rubbed to the skin, in long protracted and bad fever; the air of the bed-room kept very pure and cool; all foul and offensive sordes immediately removed.

As to the use of barn or yeast, in bad fevers, I am inclined to think favourably of it: from some trials which I gave it, I am led to believe that it has the effect of correcting the putrid factor of the stools, and of arresting the progress of putrescency and weakness.

It may be given by spoonfuls, mixed with porter or any other malt liquor, and repeated several times a day. Wine in bad fever must be freely allowed and will be often called for and relished by the patient: the patient's longing is a good criterion of the quantity to be allowed, and of the propriety of giving it freely. A bottle of wine is a very large quantity to be given
in

* These symptoms are remarkable in jail and camp fever, and in those fevers which arise from contagion.

in the course of 24 hours: but cases occur where more than twice that quantity will be taken every day, for perhaps three or four successive days; such cases, however, are uncommon. I have met with instances where the pulse became more slow and full after a glass of wine.

The patient will require to be frequently and regularly supplied with some cool antiseptic drink, such as two-milk whey; vinegar-whey; wine-whey; small beer; barley water; lemonade; buttermilk; a little cyder, perry, &c. oranges are a grateful and slightly nourishing drink.

The strength must be supported by means of light nourishment, such as roasted apples; fruit jellies; grapes; ripe fruits; gruel; sago; flummery; arrow-root; and, if it can be swallowed, a bit of toast and a glass of wine.

When the strength is much exhausted in the decline of the fever, weakness being now the principal part of the distress of the patient, broths, eggs, and meat jellies must be given. Where a difficulty of swallowing hinders the patient from taking nourishment by the mouth, it must, if possible, be conveyed by spoonfuls into the throat; and broth gylsters, in small bulk, frequently injected.

In those fevers which run on to the end of the third week, more nourishing food must be given than if the convalescence had begun at an earlier period. The treatment here recommended in cases of malignant symptoms will be necessary, where marks of debility predominate, without any striking appearance of putrescency. Sometimes the weakness is so very great, that wine will fail to excite; in some of those cases a little brandy has been found useful. Blisters applied to the legs sometimes rouse the languid powers of life, and are approved of by practitioners of eminence. Dashing with cold water in cases of great heat of skin, and particularly in delirium ferox, has excellent effects. I have seen the patient quite outrageous, and almost maniacal, after being dashed with cold water become instantly tranquil and obedient.

When fever originates from cold, and particularly when attended by catarrhal symptoms, the state of the skin must be kept steadily in view. It is in such cases that diaphoretics are most proper: diaphoretic draughts with camphor, and with antimonial wine, are excellent on those occasions: James's powder, and antimonial powder are also valuable: I have found a combination of calomel, and of antimonial powder, upon such occasions, have the double effect of opening the bowels, and of softening the skin.

If

If the patient continues sleepless for several successive days and nights, the physician's attention is directed to the state of the head and bowels: head-ache, if it exist, must be treated according to the method already laid down; if costiveness exist, we must be careful to remove it, and then order an opiate, such as is recommended in the pills, No. 13, or in the draught, No. 14; if the bowels be confined, an opiate will only add to the restlessness and do mischief; the preparatory step, therefore, of opening the bowels in fever, before we give an opiate, is indispensable, and cannot be too seriously attended to. In great mobility of the system, musk will sometimes strengthen and compose, but it frequently fails.

In palsy of any organ, the prospect is very alarming: we must then keep in view the means of relieving the head; of supporting the strength of the system, and of applying local remedies to the part affected; of these, one of the best is a blister: thus, in difficult deglutition, a blister to the throat is our best local remedy.

It sometimes happens, that there are distressing pains and uneasiness of the belly, where the head-ache and sickness of stomach are not severe in proportion, and that they continue without mitigation after the bowels are opened: we have then

then much reason to fear, that the distress arises, not from foul contents in the stomach and intestines, but from an inflammation of the peritonæum: it will be proper, in those cases, to lay a sharp blister, without delay, on the part in pain, and of such an extent as to cover it entirely.

In cases of great fury to get out of bed, the patients should not be violently restrained, but rather permitted to get up; the coolness of the air of the room, and the effort to get up will sometimes appease the delirium: should the fury still continue, dashing them with cold water will almost to a certainty put it down.

Silence, stilness, and darkness will contribute greatly to promote sleep; vinegar sprinkled frequently about the bed-cloths and floor, and attention to ventilation, will help to keep it pure and cool. In any instances of profuse early sweats, without being critical, they must be restrained, by exposing the surface to cool air, and by sprinkling it with vinegar.

It is sometimes found that in long neglected costiveness, a severe weakening diarrhæa comes on in the end of the complaint; after any irritating sordes of the bowels are cautiously removed, opiates, absorbents and astringents will be useful to restrain the purging.

When

When the patients are much exhausted after fever, we must beware of strong purgatives: gentle laxatives, in the form of enemata, will be sufficient; even ripe fruits, such as grapes, oranges, stewed and roasted apples, will often keep the bowels regular.

It generally happens, that when the fever has lasted three weeks or more, the disease will disappear by almost insensible degrees, without any marked critical change.

When the patients are convalescent, but wasted extremely by the long continuance of the preceding sickness, they are still far from being out of danger; for though the fever be removed, yet instances have occurred where weakness has killed. Patients who had been hectic from phthisis pulmonalis, before the attack of the fever, will get rid frequently of the fever, but after its departure the hectic returns, and soon proves fatal.

Much of the treatment recommended through the course of the fever, will often be indispensable during convalescence. Thus the state of the bowels must be attended to; the patients must be kept very quiet, but the same degree of coolness in the air and in the drink will not now be proper. The diet

diet must be more nourishing, and that in proportion to the exhaustion from the preceding fever: broths; milk; meat jellies in moderate quantity, and eggs, will be proper food; the jellies might be taken warm, and mixed with a little white wine.

Arrow-root, tapiocco, sago, panada, gruel, flummery, may be immediately and freely allowed at the beginning of convalescence, whatever might have been the mildness of the preceding sickness: the same may be said of all ripe fruits and fruit jellies: and indeed these articles of diet may be safely permitted, during the existence of the fever itself.

About the fourth day of convalescence, a small bit of white meat may be given, and thus by degrees in three or four days more, the usual indulgence of health as to the quality of the food might be granted.

It is a common rule, and a good one, not to give solid meat until the patient can sit up in bed for a few minutes, without any encreased quickness of the pulse.

When a relapse occurs, it is to be treated as though it were the first attack of the fever. Relapses are seldom severe, they will generally be cured in the course of three or four days.

WORMS.

WORMS.

Almost all symptoms of disease are found to attend the presence of worms in the intestinal canal, modified however by the particular species of worms; the part of the *primæ viæ* in which they are seated; the greater or less irritability of the system; and the state of the patient at that particular time: hence it happens that in children, whose irritability is greatest, the violence of the symptoms is most alarming, and the consequences of the complaint most injurious. This universal suffering is not to be wondered at, when we consider the sympathy which subsists between the intestinal canal, and all the other parts of the system: the symptoms of morbidly affected intestines and stomach are gnawing pains of the stomach, nausea, and sometimes vomiting; the appetite is very irregular; in some patients it is totally lost, in others not much impaired, and often it is extremely voracious; the thirst is mostly severe; many of the distressing symptoms of dyspepsia occur, such as flatulence, eructation, the taste of the mouth sour, bitter or putrid, a foul or stinking breath, swelled and tense belly, costiveness alternating frequently with a purging of slimy and offensive stools; the tongue as in most diseases partakes of the morbid state of the stomach, and is foul and loaded; the mucus of the

the alimentary canal, delaying in the rugæ of the intestines, assumes the appearance of solid matter, whence it has often been mistaken for the internal membrane of the intestines themselves: from this adventitious lining of the intestinal tube arise debility and want of digestion, as the mouths of the lacteals cannot now act upon, and absorb the nutriment in its passage through the primæ viæ, at least with as great effect, and as extensively as in health; griping and colic pains ensue; the urine is turbid, frequently depositing a whitish sediment; the sides are not unfrequently afflicted with pains; the lungs suffer by sympathy, hence cough and shortness of breath; the complexion is of a yellowish paleness, but sometimes the cheeks are considerably flushed and red, and these varieties of complexion alternate with each other.

Sometimes there are palpitations of the heart, faintings and cold sweats; febrile paroxysms come on with great irregularity and uncertainty, but the most usual time of their attack is at night; the pulse is generally feeble and quick, but when the head suffers, it becomes irregular and sometimes intermittent; the lips are parched and dry, the skin of a feverish heat; and the flesh soft and flabby; the head is often brought into sympathy with the stomach and intestines, whereby the internal and external senses become deranged, hence arise stupor, dilated pupils, tinnitus aurium, head-ache,

head-ache, blindness, terrific dreams, sudden screeching, grinding of the teeth; in violent cases delirium, convulsions, stupor, and in a few instances mania; and all these dreadful symptoms, even the mania, will disappear upon the expulsion of the worms, unless some other disease exists at the same time, particularly hydrocephalus: there are other symptoms generally connected with this disease, such as * dryness of the nostril, in consequence of which the patient is often observed to pick his nose; a swelling of the upper lip and alæ nasi, but this is more generally a mark of scrophula, than a peculiar symptom of worms.

All or most of those symptoms give strong suspicions of the presence of worms, but the only infallible proof of their existence is the expulsion of the worms themselves. Of these animals there are four or five kinds mentioned by authors: in this country, however, we meet only with three in the human intestines; the first kind are a small round worm, pointed at both extremities, about an inch in length, and are called ascarides, these are the most frequent in man, and particularly in young persons.

They

* This symptom is attendant on hydrocephalus too, and perhaps with more constancy, as there is a morbid increase of fluids in the ventricles of the brain, and a consequent deficiency of them in the neighbouring parts.

They are seated in the rectum or lower part of the intestines, and from the peculiarity of their situation often cause griping and straining by their irritation, and urinary affections from sympathy between the rectum and bladder; but in some instances they make their way higher up into the intestines.

The second sort are the lumbrici, or large round worms, taken sometimes for earth worms, but they are very different from them; the earth worm is composed of parts, with distinct annuli, in the lumbrici there are no distinct annuli; in the earth worm there are lines of short hairs from one end to the other, which help the animal to advance, the lumbricus is smooth, nearly cylindrical, and about a foot in length; it nestles mostly in the small intestines, and often creeps into the stomach, out of which it is discharged by vomiting; it creates much greater distress, and is with much greater difficulty expelled, than the ascarides, which may be partly explained in this way; the ascarides are lodged near the anus; medicines therefore, which empty the bowels, and particularly such as act more immediately on the rectum, will, by creating uneasiness to the ascarides, disturb them from their situation; but a very small removal from this place will discharge them by stool; hence, they are frequently found in the bed, in the morning, especially if
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the patient has been using cathartics; but the same observation does not apply to the lumbrici, which are commonly seated very high in the tract of the intestines, and consequently far removed from the anus, hence, more powerful remedies will be required for their extirpation than need be resorted to in the former case: the third sort is tenia or tape worm, it consists of a number of joints, and is many yards in length; its shape is flattish, in its body it is of an equal breadth for many yards, and then tapers off a considerable distance towards both extremities; they are oviparous, and ova are contained in every joint; they reside in the small intestines, but from their length they often extend several yards into the great intestines; the extent of each joint is generally somewhat less than an inch; the symptoms attending them are most painful and obstinate: the tenia is sometimes, but happily for mankind, not often met with: it is worthy of notice, that though many yards of the tenia may come away in fragments, the remainder will generate new parts, and create as much distress as though none of it were removed;* this capability of regenerating parts destroyed is very common amongst the lower classes of animals. These different sorts of worms have been
found

* Hence, we must not be flattered with the certainty of a cure, even though numerous fragments and of considerable length be discharged.

found only in the human species, or in animals whose structure very much resembles that of man; they are seldom met with in the human intestines until after the child is weaned, or more properly, until the child begins to use other food beside the nurse's milk, though there have been instances of their occurrence in earliest infancy.

CAUSES.

Many causes favor the production of worms, particularly such as have a tendency to weaken the tone of the stomach and intestines; weak, delicate and irritable habits, such as those of children generally are, and amongst them the weakest and most delicate are most liable to this disease; adults too are subject to worms, especially those of sedentary lives, of relaxed and delicate constitutions, and they who use spoiled, crude, and indigestible food, and food abounding with mucilage, particularly if putrid or of a bad kind; it is observed too, that a child nursed by one woman will have worms, when another child of the same family, nursed by another, will not have any. Worms are most frequently met with in cold countries, as Denmark, Norway, Sweden, Russia, &c. that is, in countries where diseases arising from cold and moisture abound: the complaint is also very usual amongst the negroes in the West Indies, that is, in persons suffering from the effects of fatigue,

fatigue, and bad, indigestible food: most children in our country have worms, one time or another, particularly in autumn, when fruits are plenty; the mucus is their proper nidus, without which they cannot live, and when it is in a morbidly increased state it is more favourable for their generation: in bad fevers and putrid diseases, worms are often passed both by vomiting and stool.

DIAGNOSIS.

The disease with which worms may be most easily confounded is hydrocephalus; and there is scarcely a symptom in one which is not met with also in the other; it rarely happens, however, that there is such severe vomiting, such acute head-aches, such intolerance of light, or such dry nostrils, observed in the disease of worms, as in hydrocephalus. In hydrocephalus, the appetite is disordered, as in worms, but it is never voracious as sometimes it is in worms; nor are the pains of the bowels so wandering or so severe, nor the flushing and change of the complexion as great in hydrocephalus as in worms. In hydrocephalus there is an uniform constipation of the bowels, unless relieved by medicines, but not in worms; disturbed sleep and starting occur in both; tumid lip, flatus, and other dyspeptic symptoms are common to both, and both diseases frequently exist together, as worms are often

passed

passed in cases of hydrocephalus: there is one symptom sometimes marked in hydrocephalus, which is not found in worms, namely, the patients suddenly grasping their heads with both hands: the swelling and tension of the abdomen begin early in worms, but not in hydrocephalus, in which the first distress commences at the head and stomach: from dentition in infants, the disease of worms is easily distinguished, by the swelling of the gums, heat of the mouth, flow of saliva occurring in dentition, without a dryness of the nostrils, and also by the child's propensity to thrust cold and hard substances into the mouth; indeed children are anxious to thrust every thing they catch into their mouth, during the distress of dentition. From *tabes mesenterica* the disease is distinguished, by the distress in the *tabes* being almost entirely confined to the abdomen; in the *tabes*, there is extraordinary emaciation and swelling of the belly, which is hard, unequal, and tense, and will not diminish from the effect of purgatives. Notwithstanding the severity of the symptoms frequently attending worms, they are known to have been discharged where none of these symptoms had previously existed; and after death worms are sometimes found in persons, in whom, during life, there had been no suspicion whatever of their existence; and it very frequently happens, that all the marked symptoms of worms occur
in

in persons whose intestines are loaded with a slimy mucus, and who are cured of those symptoms, and restored to health by the use of medicines, which are given with a view to the expulsion of worms, but which only bring away this mucus.

It is probable that this morbid and præternaturally increased mucus necessary to the support of worms, may produce the principal part of the symptoms ascribed to the presence of the animals themselves.

Instances have been known where the complaint has been fatal, and where the worms passed into the cavity of the belly, after having perforated the intestines; but such instances are certainly very rare.

Ascarides are seldom dangerous; they often cause disagreeable purging, griping, tenesmus, and urinary distress; but these are of short duration. From the *lumbricus* and *tænia*, however, debilitating and obstinate diarrhæa, and tormina often arise, with all the severe symptoms already enumerated; particularly convulsions, which sometimes prove fatal.

Where worms erode through the intestines into the cavity of the abdomen, there can be no chance of a recovery.

There is no disease so commonly suspected in children, as worms. Every feverish attack, from whatever cause; every change of complexion and loss of appetite; and every bowel uneasiness and cough, are commonly suspected to arise from worms: and yet in nineteen cases out of twenty, where their presence is suspected by the parents, no worms whatever are found.

CURE.

The cure must be conducted on the principle of killing the worms, or of expelling them; of preventing the accumulation of that mucus, which is the nidus of these animals; and of improving the vigor and health of the system, especially of the alimentary canal.

The destruction of them would be a desirable event, as then they would be dead extraneous matter, which would pass away with the excrements: but as it is often difficult, and even impossible to kill them, we must not insist on remedies which may be supposed to have that effect, particularly as it is not indispensable, with a view to accomplish a cure: it is sufficient if we can bring them away; and this is often practicable, where killing them is not.

Indian

Indian pink has been commended for killing and expelling worms, but it is not employed in this country. The bark of the cabbage tree is celebrated in the West Indies, as a valuable anthelmintic, especially in cases of lumbrici: it is used in decoction, and is generally very rough in its operation, producing great sickness and vomiting. It appears to be an useful active remedy, but is little employed in this country. Wormwood has been often exhibited for killing and expelling worms; and also semen santonicum, and with decided effect: many other bitters have been employed for the same purpose. It is very much the practice in the country parts of Ireland, to give children in the morning, particularly during the autumn and spring, the expressed juice of those bitters, as a cure for worms. Those bitters have certainly been often useful in cases of worms, probably from their effect in altering the secretions, in improving the tone of the stomach and intestines, and in unfitting them for the production of that morbid slime, which is the proper nidus of these animals.

A plan has been proposed by some, of rendering them torpid by cold; hence cold mineral waters have been recommended. It is certain that they soon expire when exposed to cold; therefore if water could be conveyed cold to them, without injury to the stomach and bowels,

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it would prove very good treatment; but such a plan might cause greater danger than arose from the disease which it was intended to remove; for it might bring on spasm and inflammation of the stomach and intestines; and even without a consideration of such danger, there is little prospect of the liquid arriving at the seat of the worms, with its cold undiminished: in febrile complaints camphor sometimes expels worms, and is therefore entitled to attention; but it deserves to be noticed, that in fevers, the worms often pass away by stool and vomiting, without any medicine having been employed for their expulsion.*

Other means resorted to are, mechanical applications of rough and pointed substances to their body, in order, by creating uneasiness to them, to destroy their adhesion to the intestines; and afterwards purgatives to sweep them away. This method has been often used with success: dolichos pruriens, filings of tin and of iron have been prescribed on this principle. It is the down upon the pod of the dolichos that is used, and it should be mixed with honey or treacle, or
some

* In bad cases of confluent small pox, lumbrici sometimes have spontaneously been passed; and this is marked as a dangerous symptom, as in such cases death commonly follows in the course of twenty-four hours.

some viscid substance, in order to protect the stomach and intestines from the effects of its irritation.

In all cases where worms are suspected, there is a disordered state of the stomach and intestines, arising from the presence of foul, bilious, and morbidly increased sordes: whatever be the doubt of the existence of worms, there can be none as to the propriety of clearing away this foulness. The most judicious method of cure, therefore, consists in giving medicines suited to this purpose; such are the powders, No. 73 and 74. The doses here ordered are for children from four to eight years old. They may be repeated every second or third night, according to the effects they produce; and if they are slow in purging, some castor oil may be given the following morning. If there are worms, we thus carry off the slimy foulness in which they are lodged, and thereby discharge them by stool; sometimes asafetida and sometimes jalap are combined with calomel, and with excellent effect. Preparations of iron are frequently exhibited, for the double purpose of expelling the worms, and of strengthening the tone of the stomach and intestines, thereby destroying the chance of the worms being regenerated, as in the formula, No. 77. Mild alkalis are employed with this latter view and combined with a bitter, as in the
formula,

formula, No. 31; they are valuable medicines. Soda muriata or common sea salt has been sometimes recommended, probably on the same principle. The mercurial combinations are those upon which we have reason to depend with greatest certainty; they ought in most instances to be repeated at least twice a week, for the purpose of guarding against the return of the slimy sordes already mentioned; for where this foul accumulation takes place without the presence of worms, the symptoms of distress will be nearly the same as where they actually exist; and the relief from the use of those medicines will in all respects be similar to that which arises from their expulsion.

It is upon the principle of removing the morbid mucus of the intestines, and of restoring their healthful secretions, that patent worm medicines have been composed; and most, perhaps all of them contain some preparation of mercury. When health begins to return, it will be necessary to improve and support the strength of the system by the use of light bitters and chalybeates, as in No. 78; purgatives of calomel, and some cathartic, as rhubarb, being occasionally interposed. The tinctures of steel are excellent medicines for restoring proper tone to the viscera.

Ascarides

Ascarides from their situation may be judiciously treated by injections, of the oily, fetid, and saline kind, and such as contain a solution of aloe; injections of the infusion or smoke of tobacco, are effectual also in destroying them; but tobacco injections, particularly in young persons, are extremely dangerous, and should therefore be given with much care and caution. Tobacco is a vegetable so poisonous, that it is only in perilous extremities it ought to be employed.

In children there is much difficulty in giving injections: it may therefore be better to exhibit moderate doses of calomel and rhubarb at night, repeated two or three times a week, and some castor oil, if necessary, the following morning; this treatment will commonly answer without the aid of glysters, and at all events it will render the aid of glysters more decisively useful; it had therefore better to be premised even where the glysters are determined on.

The powder of tin is deservedly celebrated for expelling tania; it should be given in very large doses. It expels this worm, when calomel, iron, fatids, and bitters entirely fail, as I have had many opportunities of observing in the Dublin general dispensary; after having given a fair and free trial to all the above remedies without benefit, the powder of tin in large doses has uniformly

formly brought away large fragments of the tænia, some of them many yards long.

Whatever be the kind of worms which create the disease, after their removal, the convalescent treatment must be conducted on the general plan of restoring tone to the stomach and intestines. Exercise in the open air; cold sea-bath when practicable, and in due season; and sound food, particularly animal food, are all valuable in their kind, and form a good restorative plan.

In adults, along with these a moderate glass of sound wine may be allowed.

CATARRH OR COMMON COLD.

This is a very common complaint, and generally so slight that it does not require the aid of medicine; sometimes however it is more severe, and, from the fatal consequences which may follow it, demands serious attention.

SYMPTOMS.

The most ordinary symptoms, are an unusually increased sensibility to the impression of cold; a difficulty of breathing through, or a stuffing of the nose; a weight or heaviness of the head; there is commonly a running from the nose, and the sense of smelling is greatly impaired, or entirely

tirely lost; the discharge from the nose is in the beginning thin and acrid, but in the progress of the complaint it becomes a thick and viscid mucus, which towards the end assumes a more purulent consistence and colour. Generally, but not always, there is a cough, at first irritating and dry, with a hoarseness of the voice, but it afterwards changes to a moist or humid cough, with an expectoration, which undergoes changes similar to those already mentioned, that is, at first it is scanty, thin, and acrid, then it becomes viscid, opaque, and increased in quantity, and last of all, of a purulent appearance; there is a rawness and soreness felt along the course of the trachea or windpipe and into the bronchia; the eyes become somewhat sore, and their motion painful; a sense of stuffing or fulness is complained of in the chest. Some lassitude or listlessness attends even very mild attacks of this complaint; the breathing is somewhat quickened; often small pustules break out about the lower lip, and sometimes on the upper; slight pains are felt in different parts of the chest; and in the decline of the complaint, sneezing is not uncommon.

Such are the general appearances of this disease, and when no others occur, it is seldom of importance, particularly in constitutions in which the lungs are not delicate or diseased.

INFLUENZA OR EPIDEMIC CATARRH.

There is another sort, the influenza or contagious catarrh, which is more severe, and not unfrequently attended with danger. It returns commonly at the interval of a few years, and spreads over a large portion of the globe. It sets in with fever, and with great and sudden debility; so that in some instances, soldiers exercising have been known to drop their arms suddenly, and mowers in the field their scythes.*

COMMON CATARRH RESUMED: ITS DANGER IN DELICATE AND DISEASED LUNGS.

In the common catarrh or cold too, the danger is often great; indeed in particular constitutions, much greater, than it is in the ordinary state of influenza in persons of sound lungs. The cough becomes sometimes extremely distressing, especially towards night, attended with great difficulty of breathing; sometimes the breathing is so oppressed as to resemble asthmatic breathing, and that in patients who never had an attack of asthma before; the expectoration is in some cases bloody;

* There is an instance recorded of the crew of a 64 gunship, amounting to upwards of 500 men, so suddenly and violently attacked, that in the course of 24 hours, only 26 could stand on the deck. Such was the severity of the influenza in 1775, but it has returned since, and commonly with less severity than at that period.

bloody; there is a turgid and red appearance of the face with head-ach increased on coughing; the cough is dry, irritating, and frequently repeated, with little or no expectoration, and accompanied by a severe deep-seated pain in the chest, which in some shifts its place, but in others is fixed; this pain often makes the effort of coughing nearly intolerable, and is an occurrence which attends the transition of catarrh into pneumonia or inflammation of the lungs; the tongue is commonly loaded, and the pulse quicker than natural; but this state of the pulse and tongue also belong to mild species of catarrh.

Repeated attacks of this disease will lay a foundation for its returning frequently, and will destroy the most vigorous constitution. Exposure to fresh cold during the cure will render it more violent. In old persons from frequent attacks of it in the course of life it becomes habitual and incurable; it is then called tussis senilis, of which we meet with daily instances.

CAUSES OF CATARRH.

In cold and damp countries, cold applied to the body brings on many complaints by obstructing perspiration, but most particularly catarrh; it is also produced by sudden changes of the temperature of the atmosphere, especially where the change is attended with an increased

increased degree of moisture; by passing suddenly from a warm into a cold air; and by contagion. The last is the cause of the influenza; the others, the exciting causes of inflammatory or common catarrh. Those causes will bring it on with more certainty and danger, in persons who have a great sensibility to the impressions of heat and cold; and in those who are addicted to habits of intoxication, which create an increased irritability of the whole system, and particularly of the lungs: drunkards are generally remarkable for sore eyes and a husky dry cough; it sometimes happens also in such persons that the liver is diseased, which, for an obvious reason, affects the lungs. A scrophulous or tubercular state of the lungs, adhesions in the lungs arising from former attacks, and an irritable state of the lungs occasioned by former complaints, or by mal-conformation, as in cases of narrow chests, or broken ribs, will likewise dispose to catarrh.

SEAT OF THE DISEASE.

The parts on which this disease most immediately fixes, are the lining membrane of the nose, of the trachea, and of the bronchia throughout their elongations. A slight inflammation of this membrane causes the symptoms which characterize the complaint; first the secretion from this membrane seems to be almost checked; then, as the

the inflammation subsides, it becomes morbidly increased, and mucous, and last of all more viscid, and of a purulent appearance.

Catarrh, when mild, ends in the course of a few days, perhaps in less than a week, and in such cases the best treatment is to leave it to nature, enjoining moderate exercise in the open air, but guarding against all exciting causes, as intemperance in food and drink, and exposure to cold or damp air. Confinement to a warm room, and the use of laxatives and diaphoretics will, it is true, banish the complaint sooner; but by this treatment, the patient will be more relaxed, and more susceptible of fresh attacks. Catarrh however is often very alarming and demands all the skill and exertions of the physician, in consequence of its tendency to end in inflammation of the lungs, or in phthisis, by the inflammation spreading from the mucous membrane of the bronchia into the substance of the lungs: in cases of tubercles of the lungs a moderate degree of catarrh may produce phthisis, by causing an inflammation of those tubercles; such a termination is unfortunately too frequent. This disease sometimes ends in asthma, and in some rare instances in dropsy. Repeated attacks of it occasion a delicacy of the lungs, attended by an obstinate and habitual cough, in old persons called *tussis senilis*, a complaint which medical aid in this climate can only

only relieve or mitigate, and which in a few instances has been known to bring on pneumonia notha, a fatal and treacherous disease.

TERMINATION OF CATARRH.

Catarrh terminates often without any obvious critical solution; sometimes the only change is the expectorated matter becoming free and of a yellowish appearance: a bleeding from the nose is not unusual, and when it occurs it brings relief: sometimes an increased discharge of urine, but more frequently a copious and general moisture on the surface carries off the complaint.

DIAGNOSIS.

Catarrh is easily distinguished from all others; an inflammation of the lungs is that with which severe catarrh is most likely to be confounded; little mischief however can arise from a mistake of this sort; as severe catarrh and pneumonia require the same treatment. It may be more necessary to distinguish it from fever, as the bleeding which the severe catarrh requires is very seldom safe in fever: from fever it can for the most part be known by comparing the pulmonary symptoms with those which shew a disordered stomach. Where we are told that the attack began with a loathing of food, sudden
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loss of appetite, and some head-ache, or, that upon approaching food, the patient took a disgust against some particular dish, and that he could not afterwards take any food; in short when the stomach, tongue, and head are more disordered than the lungs, that is, when sickness at stomach, foulness of tongue, inclination to vomit, general lassitude and head-ache are the prevailing symptoms, then we are justified in considering and treating it as fever, even though there should be a cough with other catarrhal symptoms: but if the distressing appearances are a severe and oppressive cough, stuffing of the chest, and increased difficulty of breathing, without the stomach and head being much affected, or without being affected, much in proportion to the cough, oppression, and short breathing; we may then safely pronounce it a complaint of the lungs.

CURE OF CATARRH.

When the pectoral symptoms are severe, and accompanied by a hard and quick pulse, particularly in habits predisposed to inflammation of the lungs, or phthisis, bloodletting from the arm is necessary and may in case of emergency be repeated: but unless such an alarming combination of circumstances exist, our principal object should be to cause a determination to the surface, and increase the action of the cutaneous exhalants:

lants: for this purpose the patient should wear warm clothing; remain in pure, dry, and warm air; bathe the feet in warm water at bed time, and repeat the bathing every night or every second night, especially when the complaint is recent: the food should be easy of digestion, rather in a liquid form, and contain comparatively but slight nourishment; the drink diluent, light, and taken warm; the drink may be occasionally impregnated with medicines of a diaphoretic quality, such as nitre whey, whey with some drops of spirit of ammonia, &c. If there is much irritability of the trachea with soreness and a teasing cough, mild mucilaginous and oily mixtures in small quantity will be useful, combined with camphor, or with opium; thus almond milk, oily emulsions, spermaceti emulsions, will be useful as in the formulae, in the appendix marked No. 66. 67. Honey variously prepared, and liquorice, are sometimes used with the same indication: if the bronchiæ are loaded with tough mucus difficult to be brought up by expectoration, a liquid preparation of squills, of laudanum, and of gum ammoniac, as in No. 69, is a good expectorant: but where there is a sense of suffocation and oppression, an emetic of ipecacuanha in powder or its vinous preparation as in the formulae, No. 46, 102, will relieve, where demulcents and expectorants fail. In such cases a blister applied to the sternum or between the shoulders

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is also useful; a pitch or warm plaister operates on the same principle with a blister, but is more slow and less effectual.

These applications are particularly indicated when the morbid secretion of mucus into the bronchiæ is considerably increased and will only receive a temporary check from other medicines, and where there are apprehensions that the disease may pass into the substance of the lungs. In cases in which asthmatic symptoms, such as laborious and difficult breathing, &c. are induced by the complaint, or when it occurs in asthmatic constitutions, a solution of asafetida, some vinegar of squills, and some paregoric elixir or laudanum, as in No. 68, is a valuable remedy: pills of asafetida squill and opium are also useful in this modification of the disease: in chronic catarrh these pills taken at night are found excellent in mitigating the severity of the cough, in relieving respiration, and in procuring sleep.

Small doses of powdered ipecacuanha, as in No. 106, taken at bed time, have also frequently the effect of relieving this catarrhal and asthmatic breathing.

Throughout the course of the disease the bowels must be kept regular; half a drachm of the compound powder of jalap is a moderate dose

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for an adult, and generally answers this purpose: moderate doses of any of the saline purgatives likewise will keep the bowels free; the same object will be attained by means of the purgative mixture No. 4. But when the tongue is loaded, and the pit of the stomach tense and painful on pressure, the bolus No. 2, or a dose of the pills No. 1 or No. 3, will be most effectual in dislodging the foulness of the alimentary canal and carrying off this pain: in such cases too the combination of antimonial powder and of calomel in No. 65 is excellent, as having the effect of softening the skin and opening the bowels at the same time.

In tussis senilis, issues or a seaton between the shoulders are found to give great relief.

In all cases of chronic or habitual catarrh, flannels should be worn close to the body, the feet and legs kept warm with woollen stockings, and, where it can be done, exercise taken every day on horseback: temperance in living and regular hours are indispensable.

When the disease sets in with a febrile paroxysm and is recent, it is good practice to give an emetic at night, and the purgative bolus or pills the following day; this breaks the violence of the complaint: afterwards the patient may continue to use an appropriate expectorating mixture.

CURE

CURE OF INFLUENZA.

Influenza is best treated in general like typhus fever: instances have occurred in this disease where wine became more necessary than in typhus fever itself: but along with the remedies adapted to typhus, some expectorating medicines will occasionally be useful to relieve and carry away the cough: the formulæ recommended for the inflammatory or common cold will be proper for this purpose.

Epidemic colds have of late years been known in Dublin to commence with feverish paroxysms, but soon to assume the character of inflammatory catarrh, without those symptoms of great and sudden prostration of strength, remarkable in former influenzas; in such cases the cure differs very little from that of the inflammatory disease; an emetic in the commencement will be proper, and the following day a calomel purgative, the dose to be suited to the state of the patient: afterwards the expectorating medicines already pointed out in treating of the inflammatory cold are to be employed, the purgatives being occasionally repeated.

It will be a good plan in general in those cases to consider whether the complaint most resembles

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fever

fever or inflammatory cold: if its character approaches nearer to that of fever, it will require more of the treatment necessary in fever; but, if to that of inflammatory cold, the medicines adapted to the cold will be most proper.

PNEUMONIA OR INFLAMMATION OF THE LUNGS.

Inflammation of the lungs begins with shivering followed by increased heat, thirst, a remarkable sense of weight and tightness of the chest: early in the complaint, perhaps on the first but sometimes not until the 2d day, there is a severe pain felt in some part of the chest, either under the sternum, under one of the scapule, or under one of the mammæ, but most commonly under the arch of the ribs: this pain is sometimes confined to one spot, but at other times it shoots from the part affected in various directions through the chest; in some instances the pain is extremely severe, and aggravated even by the effort of respiration, in consequence of the motion of the ribs and diaphragm which that process requires: this pain greatly increases the severity of another symptom common in pneumonia, viz. dyspnœa or a difficult and laborious breathing, which often amounts to orthopnœa or a necessity of breathing in an erect posture. Sometimes it is not an acute or pungent pain, but rather a sense of weight and oppression

oppression which the patient suffers; but in either case the breathing is laborious: cough is constant, and is a very distressing symptom; it is teasing and dry, or accompanied by a viscid, frothy and scanty expectoration, which is frequently tinged with blood.

When the pain of the chest is pungent and acute, the pulse is quick and hard; but when it is not so much an acute pain as a sense of weight and oppression, the pulse is small and feeble.

The patient lies with most ease commonly on the side in pain, but there are instances of the reverse: the skin is mostly hot and dry, but not unfrequently a burning sweat breaks out over the whole surface without any relief to the patient, but rather with the effect of increasing the general distress. Some cases occur, in which the patient breathes most easily, not in an erect, but rather in a prone attitude or posture.

In the progress of the complaint, the strength sinks apace; the eyes get an expression of extreme distress; the lips become livid; the face deadly pale or livid; the chest heaves very much in breathing; the patient, incapable of reclining, must sit erect, or with the body inclined forward. The tongue is never as foul as in typhus fever, and very frequently it is not foul at all, but rather
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of a dark red colour. Head-ache and delirium are unusual, but when they occur they are very dangerous. In the last stages of pneumonia the patient breathes as if half strangled. Remissions sometimes come on which might impose upon an incautious observer; but the symptoms of deep distress soon return with aggravated severity. Instances have been known where the patients walked about their room a few hours before death in this disease: death is often sudden and caused by suffocation, the consequence of blood effused into the bronchia: the lungs from this effusion have in the diseased part an appearance not unlike the liver, but darker from the badly oxygenated state of the effused blood.

The fatal termination is in some instances more slow when a watery fluid is exhaled into any of the sacs of the pleura, or within the cavity of the chest, causing hydrothorax: this termination suffocates by pressure on the lungs, and perhaps on the heart.

Adhesions are often found in various parts between the pleura costalis and pleura pulmonalis, and sometimes exudations, whence clots of gluten are deposited on the surface of the lungs.

Suppuration in some instances takes place, which forms an abscess within the substance of the lungs,

lungs, and this by bursting into the bronchia suffocates suddenly, or causes the complaint called empyema by opening into the cavity of the chest, and brings on a fatal hectic, or by being discharged into the cavity of the abdomen, through adhesions formed at the diaphragm, ends likewise in hectic. A few instances are mentioned by medical writers in which the abscess pointed outwards and was discharged by an operation; and in some of these the patient recovered.

The only termination of this complaint which can be regarded as favourable, is resolution: it should therefore be the object of the physician to procure it by all the means in his power.

When pneumonia takes a favourable turn, the cough becomes more loose; the expectoration more copious, more opaque, and more friable; the distress of breathing gradually abates; a thin warm sweat breaks out over the surface; the urine is rendered in increased quantity, upon standing for some time it becomes turbid, and then deposits a thick sediment; the pulse becomes softer and slower; the tongue moister and of a natural colour; appetite and sleep begin to return: in some instances a discharge of blood from the nose, and sometimes from the anus, gives relief in the beginning of the disease.

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The unfavourable symptoms are, great difficulty of breathing, particularly orthopnea; great oppression; pain excessively severe, and seeming to shift its place, or shooting in various directions through the chest; * cough continuing dry and teasing; pulse low and contracted; difficult, scanty and viscid expectoration; expectoration very bloody, or entirely checked; cough frequent, and incessant, or entirely repressed; pulse becoming irregular; severe head-ache, and delirium; livid countenance and lips; or pale countenance with livid lips; a cold clammy sweat; great and sudden prostration of strength; all these are generally fatal.

This disease most commonly attacks in winter or spring; it is often met with also in autumn; but its occurrence is least frequent in summer. The circumstances which favour its return at any season, are great and sudden vicissitudes of heat and cold.

Pneumonia is the sequela sometimes of small-pox, but much more commonly of catarrh, of chin-cough, and of measles, particularly in scrophulous

* The shifting of the pain, and the sensation of its shooting in various directions, are signs of general inflammation: this general inflammation has been found in several of the lobes of the lungs after death, in persons in whom the above sensations had been felt during the existence of the complaint.

scrophulous habits: we often hear the dregs of measles more feared, even amongst the poor, than the measles themselves; and they certainly are in several instances more fatal: catarrh also passes sometimes into pneumonia, and therefore every kind of catarrh should, in persons of delicate lungs, be carefully attended to; the same observation applies in a stronger degree to pertussis or chin-cough.

Pneumonia is most usual between the age of fifteen and thirty five; but many instances of it occur in children, and it is sometimes met with in old persons.

CAUSES OF INFLAMMATION OF THE LUNGS.

The causes which predispose to this complaint, are an ill-shaped, narrow or contracted chest, as in persons of broken backs: this deformity produces an increased irritability of the lungs, an impediment to a free circulation through them, and an accumulation of blood in their vessels, as they want sufficient room now to be expanded within the contracted thorax, all concurring to bring on this disease: an habitual delicacy of lungs will lay a foundation for it, as in asthma and dyspnoea; repeated attacks of catarrh, and of inflammation of the lungs, cause an increased irritability of them, and leave adhesions which dispose

dispose to a new attack of inflammation from the application of cold; intemperance in drinking vinous and spirituous liquors has the same effect: indeed, hard drinkers are seldom free from cough, and temperate persons, if at any time they indulge too freely in drinking, generally have a cough the following morning; violent exercise; and a scrophulous constitution. Such may be considered the predisposing causes of pneumonia.

The most common cause which excites it, is cold applied to the surface when the body is heated or otherwise predisposed; hence, it is often the reward of dancing, the performers rushing into the cold air from a heated room, and not unfrequently covered with sweat, soon get an inflammation of the lungs; violent injuries to the chest will excite the disease, such as strokes, bruises, falls, fractured ribs; sometimes too great exertion of the voice and of the lungs, as singing long and loud, loud and long continued talking; blowing trumpets and wind instruments; a metastasis or translation of other diseases, as of angina tonsillaris, erysipelas, but more particularly gout, will sometimes bring it on; and in those instances, even when it is the effect of gout, it must be treated as if it were produced by cold.

DIAGNOSIS.

DIAGNOSIS.

Pneumonia is distinguished from other inflammations, by the seat of the disease: hepatitis, or inflammation of the liver, has many symptoms in common with pneumonia, such as severe acute pain in some instances, but in others, dull pain, both increased by cough and full inspiration, cough and dyspnoea; but in hepatitis, the pain is referred to the seat of the liver, here too the pain is much increased on pressure, but not so in pneumonia, nor are the pectoral symptoms of cough and difficulty of breathing, at any time, as severe in hepatitis, as they are in pneumonia: a pain in the stomach is distinguished from inflammation of the lungs, not only by the seat of the pain, but likewise by the sickness, loss of appetite, and by the vomiting which belongs to the pain of the stomach: catarrh or common cold is sometimes so severe as to be taken for inflammation of the lungs, but from a mistake of this sort there is little danger that any serious evil can arise, as severe catarrh and pneumonia require nearly the same treatment; and because, what was in the beginning catarrh, sometimes terminates in pneumonia, the inflammation of the mucous membrane of the bronchiæ, which is the immediate cause of catarrh, passing into the substance of the lungs, and tense membrane of the

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the pleura, and bringing on pneumonia: except where the catarrh actually passes into pneumonia, they will be distinguished by the degree of severity in the symptoms: thus, the dry, severe and incessant cough, the difficult respiration, and above all, the severe pain in the chest, mark the inflammation of the lungs. The symptoms of pneumonia far advanced, such as livid countenance and lips; orthopnea; excessive anguish and restlessness, are not met with in the other complaint: it is in incipient pneumonia only that there is danger of confusion. Typhus, or common fever is the disease from which it is most important to distinguish this complaint, because the bleeding necessary in pneumonia, might prove fatal in fever; and the treatment most judicious in fever would prove inadequate and inert in pneumonia: but the distinction already pointed out, between fever and catarrh, in treating of the latter complaint, will be more decidedly marked between fever and pneumonia,—vide catarrh.

Pneumonia seldom proves fatal before the ninth or tenth day, and often not before the fourteenth, and sometimes not before the sixteenth day.

CURE.

The principal remedy to be relied on, is bleeding largely; if called in early, from eighteen to twenty

twenty ounces might be taken at once, from an adult, and even more from robust persons: the bleeding is always most useful if it be taken from a large orifice, and in a full stream, and perhaps, from the arm of the side affected, rather than from the other; but if there is any awkwardness in taking it from that side, we should not hesitate to take it immediately from the other, as the difference of the benefit, if any, is trifling, compared with the importance of bleeding without loss of time: a remission of pain procured by the first bleeding must not deter us from repeating the venesection perhaps on the same day, if the pain should appear to return, but certainly on the following day; and if the first bleeding procures little or no mitigation of the pain and other symptoms, we must repeat the blood-letting copiously, in five or six hours after. The orifice ought to be large, in order to admit of a full stream, whereby in a given time a greater quantity of blood is taken away, because the suddenness of the depletion is of material importance in contributing to its utility, perhaps of more importance than the actual quantity of blood lost: this treatment must be resolutely persevered in, until a decided mitigation of symptoms takes place, such as a relaxation of the tightness felt round the chest, a marked alleviation of the pain, but above all, a more humid cough, and a more copious expectoration; the pulse also becomes