THE MEDICAL ADVISER

and complete Guide to

Health & Long Life,

containing

the most plain and easy directions

for

THE TREATMENT of EVERY DISORDER

incidental to the Human Frame

IN ALL ITS AGES.

By

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Mr Macinn, Surgeon,

(Member of the Society of Practical Medicine of Paris)

and other

MEDICAL GENTLEMEN.

London.

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Pl. I.

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Pl. 2.

Fig. 2.

Fig. 1.

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Pt Pitcomsdey Row

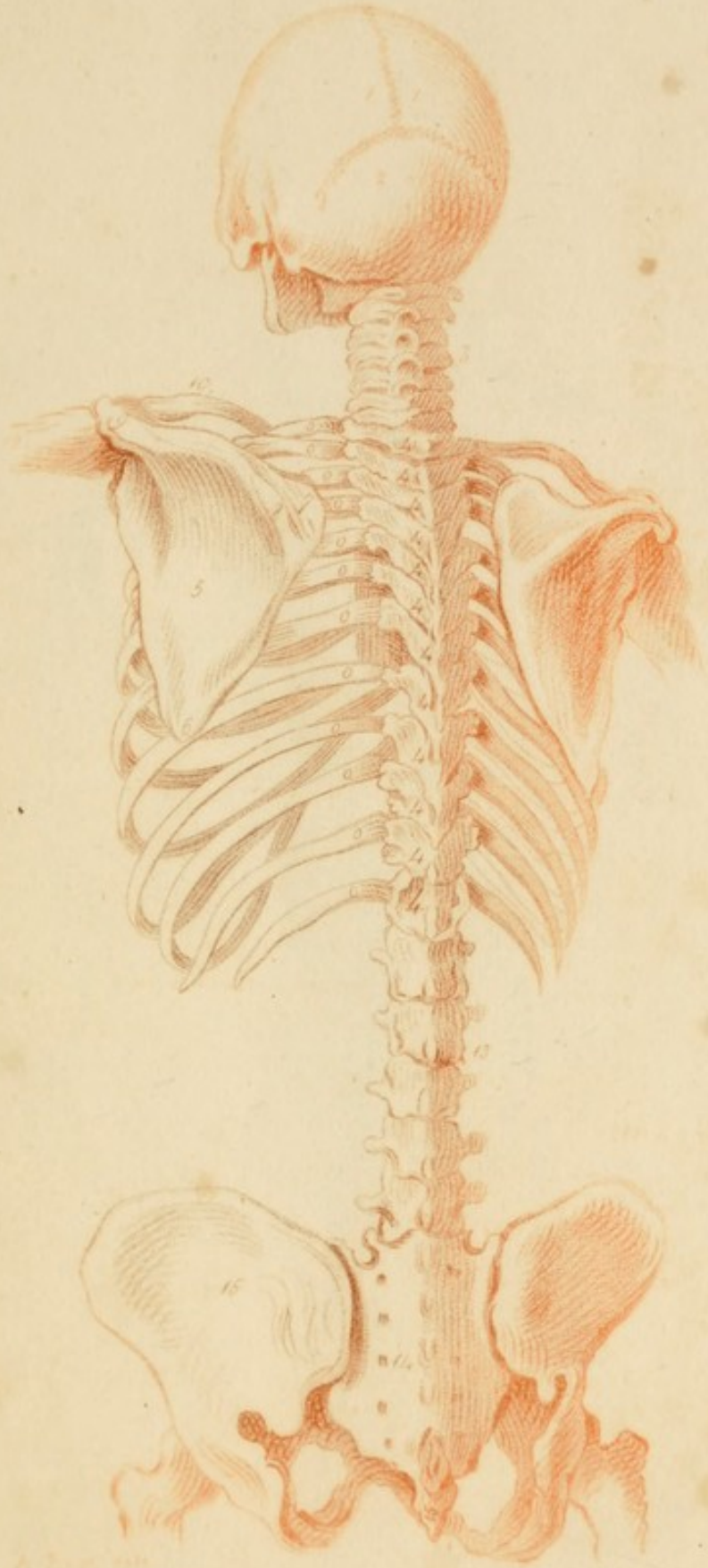

Fig.

1. Rabbit Mouth

2. Toothless Mouth

3. Projecting Chin

4. Mouth without any deformity

5. The Jaws expanded to shew all the teeth.

Nº

1.1. Front Incisores
2.2. Lateral Incisores } *or Cutting Teeth*

3.3. Cuspidati Canine or Eye Teeth

4.4.4.4. Two pair of Bicuspides or small Grinders

5.5.5.5. Molares or large Grinders

6.6. Dentes Sapientiæ or Wisdom Teeth

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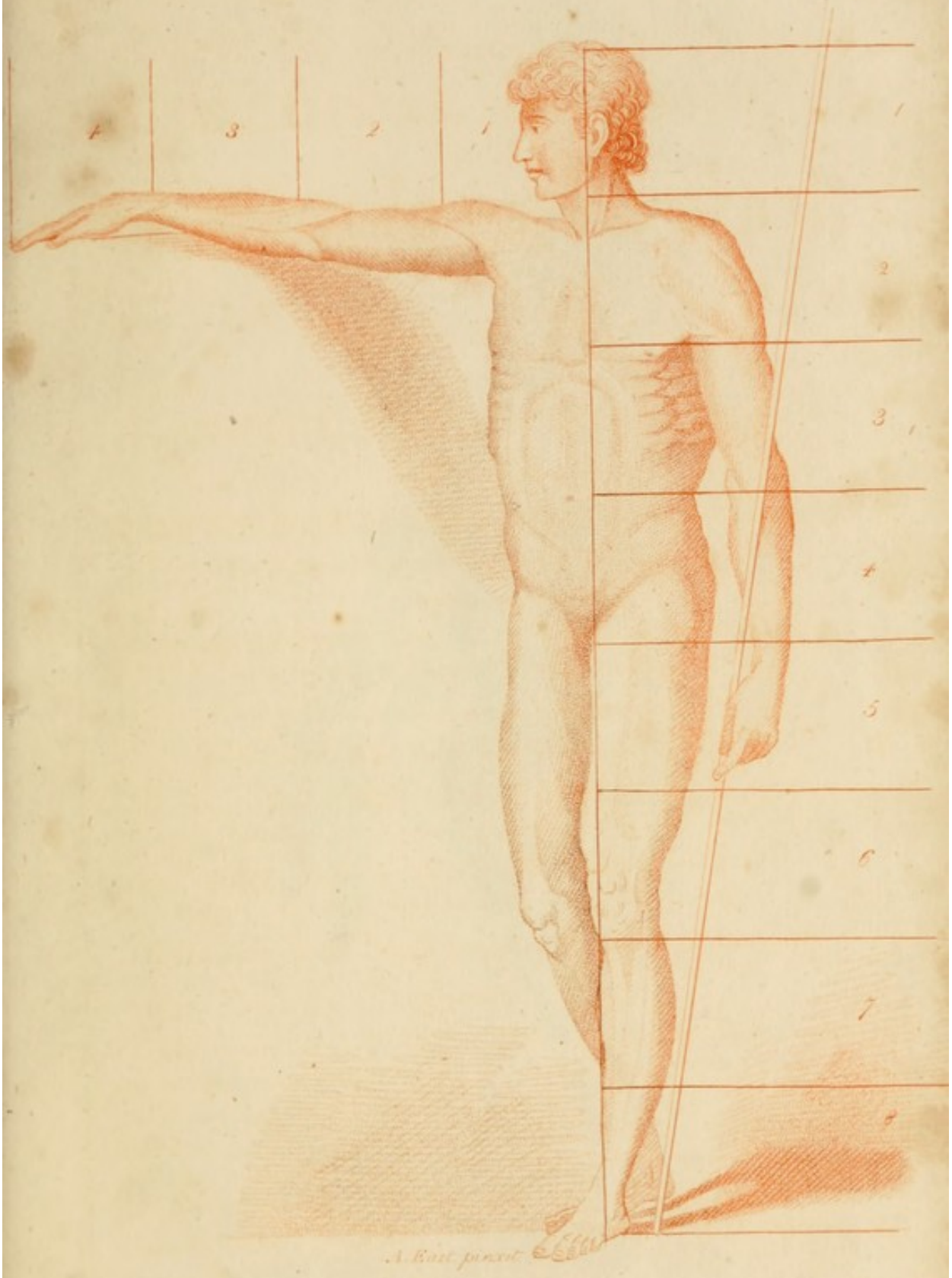

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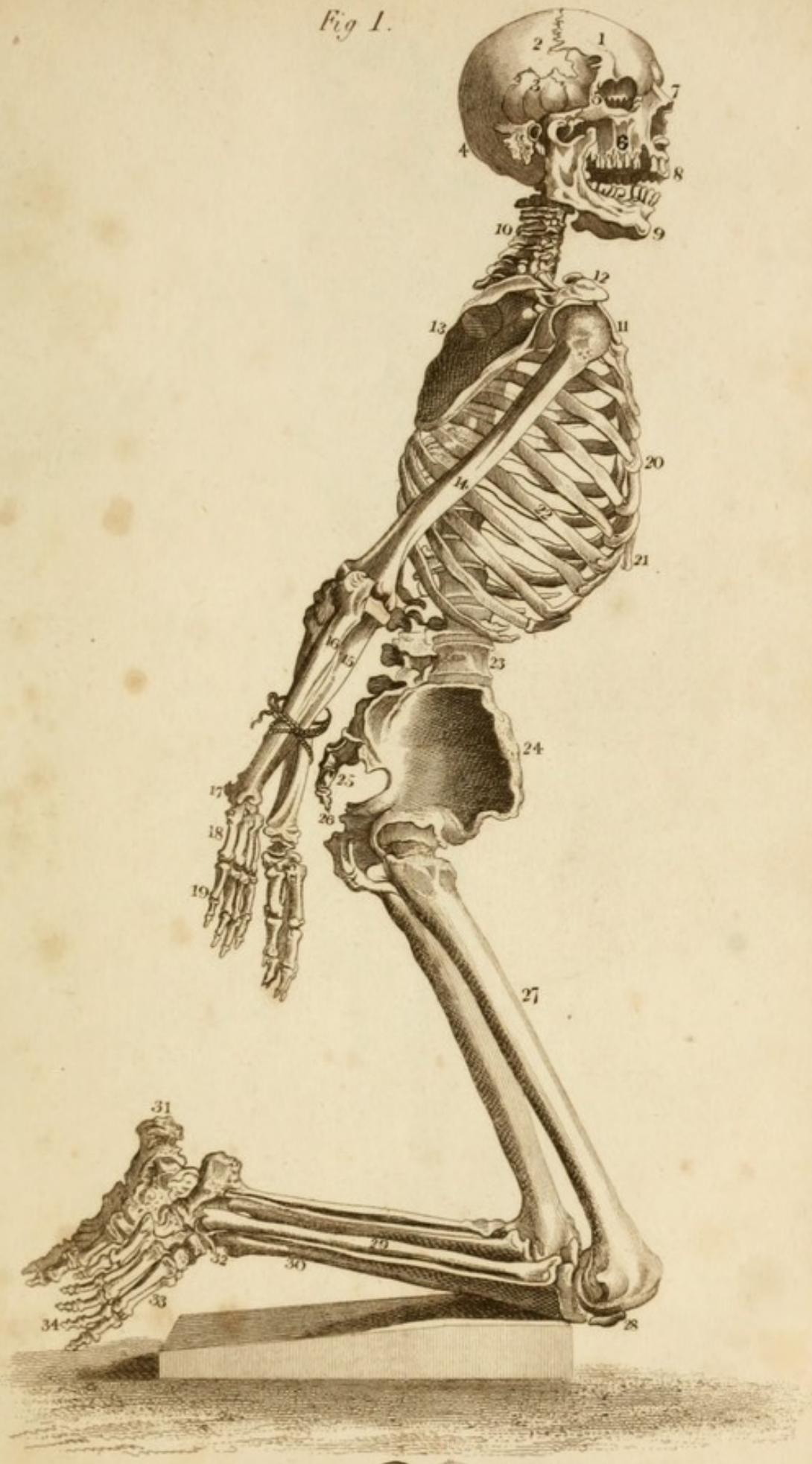

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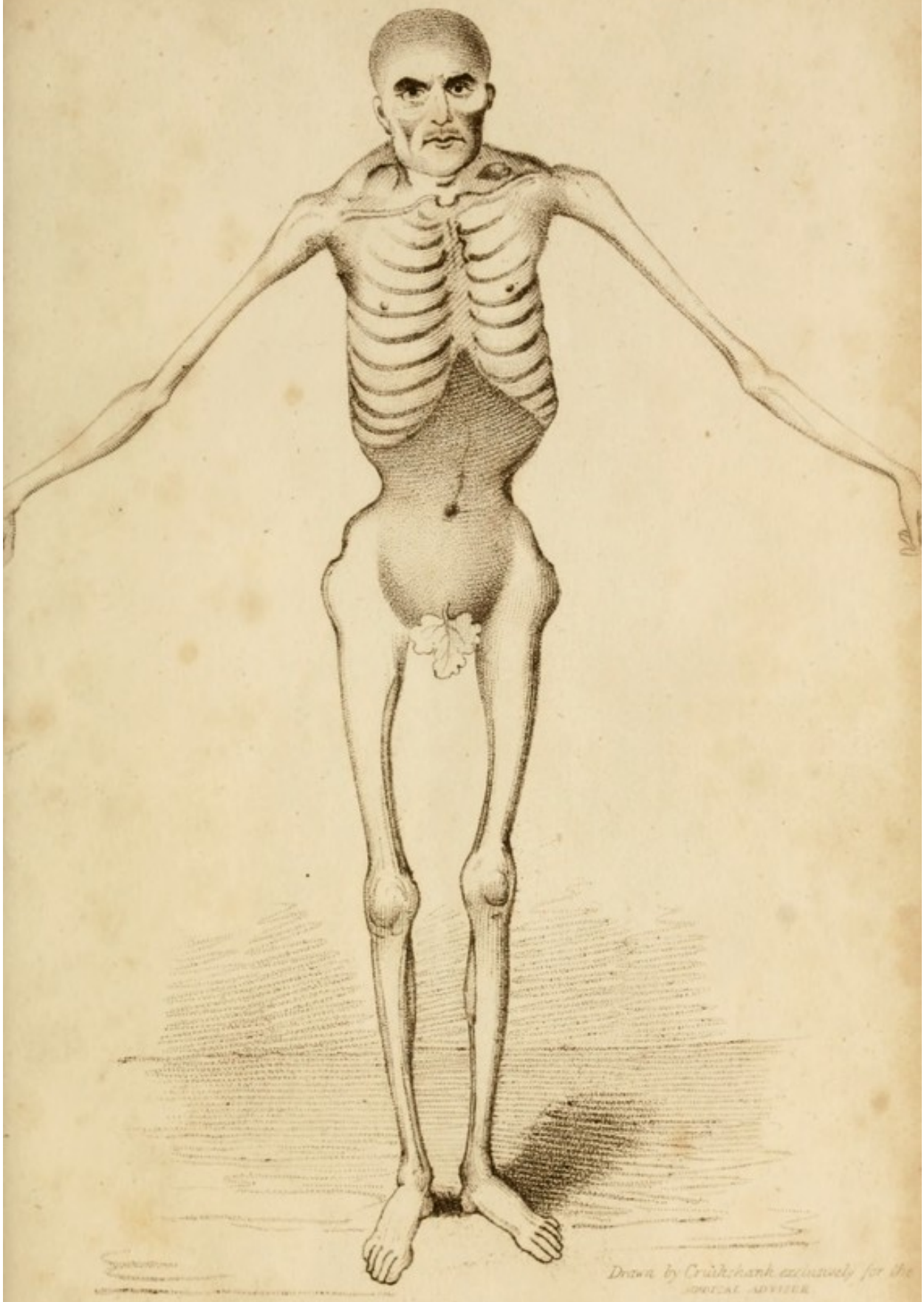
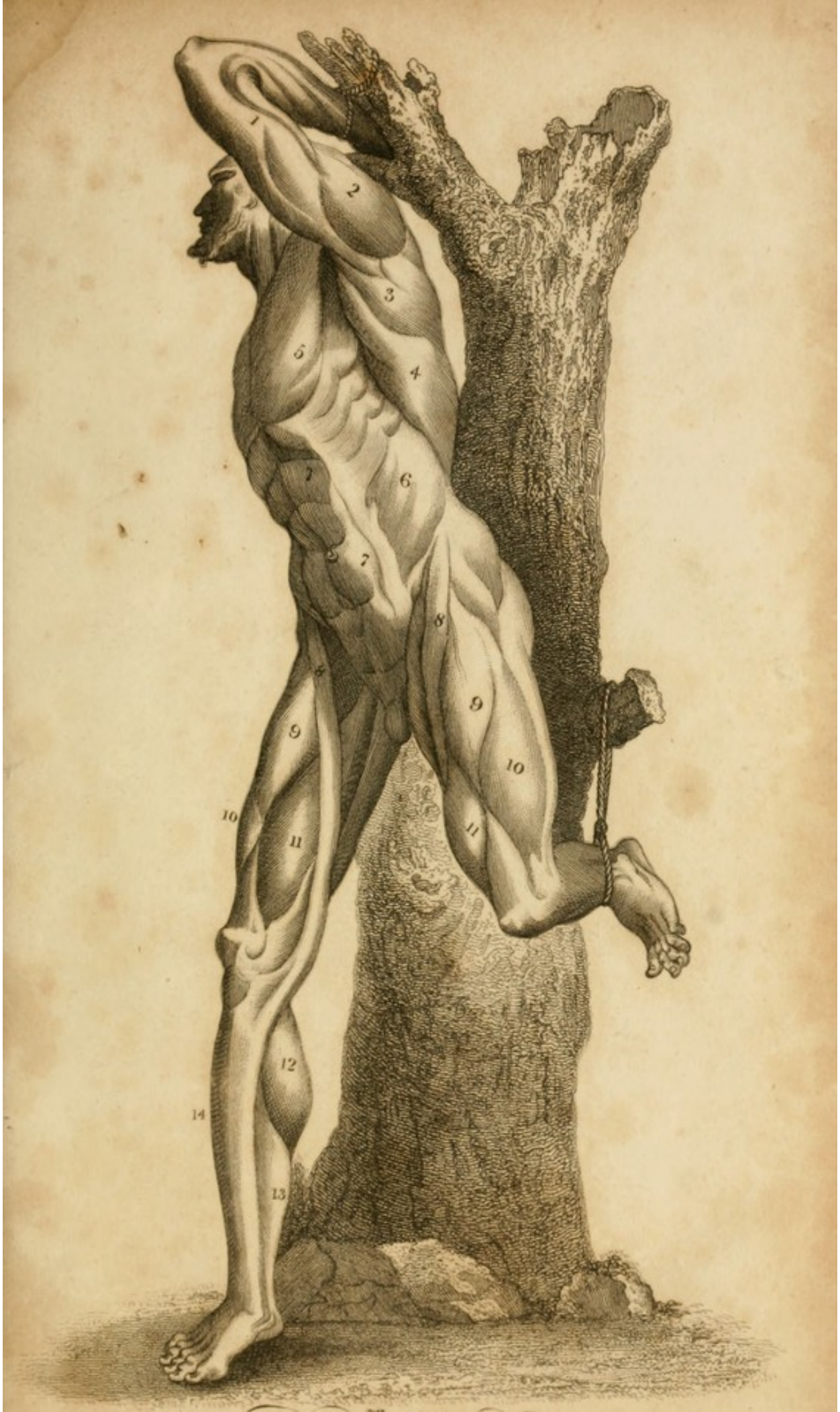


Drawn by Cruikshank exclusively for the
MEDICAL ADVISER

CLAUDE AMBROISE SEURAT
born at CHAMPAGNE April 10 1798
Height 5 Feet 7½ Weight 77½ lbs

LONDON PUBLISHED BY JOHN WILLIAMS
13 Paternoster Row
April 9 1833



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THE
MEDICAL ADVISER,
AND COMPLETE
GUIDE TO HEALTH AND LONG LIFE.

DISEASES OF SEDENTARY PERSONS, OF ARTISANS,
AND OF ALL THOSE WHOSE HEALTH BECOMES INFLUENCED BY THE NATURE OF THEIR EMPLOYMENTS, HABITS, OR SITUATIONS.

No. 1.

UNDER the above head we commence a series of articles, and hope, that in examining a subject so highly useful to the community, we shall not embarrass it with unintelligible technicalities or obscure theories; but in a plain, clear, and concise manner, lay open the paths of health, and consequent happiness, to those whose peculiar situations in life call forth our remarks.

Nothing is more true than that climate and national manners highly influence the growth, health, and decay of mankind, and we need but little argument to shew, that what may affect generally, may also act partially. Trades and callings form a main character of a nation, and as those employments and situations, in which men, for the whole period of their lives, remain, differ so widely, their constitutions must, more or less, be affected by them. Every nation possesses peculiar diseases, and why not every trade or occupation?

The diseases by which the far greater part of mankind are cut off, are either epidemical, or such as, arising from a bad constitution of the air, and the vicissitudes of the weather, rage and exert their fury at particular seasons; or endemial, and familiar to certain nations and countries, in consequence of the diet and regimen of the inhabitants, the air they breathe, the exhalations with which the atmosphere is impregnated, the water, the wine, and the malt liquors they drink, &c. &c. These two species of diseases agree in this, that both seize a considerable number at one and the same time; but they differ in this, that the epidemical, arising from the vicissitudes of the weather, the influence of the winds, and the influx of the stars, last only for a certain limited time; whereas those of the endemial kind, drawing their origin from a fixed and stated cause, essential to the country, remain without change or variation for many years.

In Europe, strumous swelling of the neck, peculiar to the inhabitants of some of its high and mountainous parts, is not, as it is commonly believed, produced by the snow waters, which are also found in other parts, but rather by drinking such waters, as, passing through calcareous mountains, are coarse, heavy, and richly impregnated with a calcareous earth; for which reason, drinking the waters of certain springs produces a strumous swelling of the neck. The Swiss, the Grisons, and the inhabitants of Walliserland, are very subject to this disease. Thus Munster, in the third book of his *Cosmographia*, informs us, "that the inhabitants of Switzerland and Walliserland are so afflicted with strumous swellings, that the weight of the *strumæ* proves a hindrance to their speech; and that such women as give suck are sometimes obliged to throw these swellings over their shoulders, like bags, that they may not prevent the sucking of the infant."

This account is confirmed by Wagnerus, in his *Hist. Nat. Helvet.* In some particular parts of the Grisons' country, there are waters of such a peculiar and unhappy quality, as to produce large strumous tumours of the neck, whether they are drank, or only used for boiling or preparing aliments. Nor is this misfortune peculiar to the natives of these places; for foreigners, who reside in them for some years, and use the waters, though at their arrival their necks were very slender, have them rendered as large as that of a bull, with dew-laps hanging down from them. By these tumours, the aspect of the patient is rendered so unseemly, and his speech so vitiated, that he frequently excites laughter in those who see the former, or hear the latter: but the lower and more abject of the inhabitants, glorying in this deformity, by way of contempt, call those who have the good fortune to escape it, *goose-necks.*

Dropsy of the testicles, and hard swellings of the testicles, are very commonly incident to the inhabitants of Languedoc and Provence. The immoderate use of chesnuts, large quantities of which are produced in these provinces, seems to be the cause, why their inhabitants are, in a peculiar manner, subject to these diseases; for, by the frequent use of these, the lymph and blood are so thickened, as to pass slowly through the small spermatic veins, the situation and direction of which are perpendicular. The inhabitants of France, in general are also very subject to fevers, not only of the intermittent, but also of the continual, malignant, putrid, slow, and hectic kinds, which often prove fatal to them. The circumstances, principally contributing to the production of these diseases, are their moist aliments, their liberal eating of strong soups, and autumnal fruits; their using food without salt, their drinking water copiously, and but little wine. By such a regimen the blood is highly attenuated, and a large collection of serum accumulated; which if not duly purged off, especially in spongious bodies, deprived of a proper strength of the fibres, and exposed to southerly winds, stagnates in the vessels, and disposes to fevers, ulcers, and putrefactions. Besides, not only the children, but also the adults of this nation, are much afflicted with worms of an uncommon size, which are produced by their moist food, their liberal use of nutritive aliments, and their drinking large quantities of water.

A large and numerous train of disorders are endemial to England, and principally seize the patients in the autumn. The inhabitants of London, the metropolis of this nation, are highly subject to stuffings of the head, hoarseness, coughs, malignant dysenteries, fevers, the small-pox, and the fluor albus in the tender sex. A cloudy atmosphere, impregnated with the moist vapours of the sea, contributes not a little to the generation of these disorders. But no disease is more fatal to them than a consumption of the lungs, and unseemly defedation and corruption of the whole body; for by this disorder a great number of the English are cut off. Under this misfortune, the patient's strength becomes languid, his respiration difficult, his cough continual, and his lungs, upon opening his body after death, are found full of scirrhous tubercles. This disorder is, in a great measure, produced by an air that is thick and impregnated with the smoke of fossil coals, which, being received by the mouth, so corrigates and constricts the vessels of the lungs, that a large quantity of viscid blood is easily retained by them.

This disease, as also inflammation of the lungs, are more incident to the nobility and people of distinction and opulence, than the meaner sort; because the former indulge themselves in delicacy, idleness, and luxury, eat the richest and most luscious fleshes, and drink large quantities of generous wines; by which means, nature, especially in weak and spongious bodies, is rendered incapable of managing the too large quantity of blood, and carrying on the secretions which ought to be made from it. In con-

sequence of this, a large quantity of viscid blood is collected, and stagnates in the lungs, which are of a soft and vascular texture; a circumstance which gives rise to the above mentioned disorders; for a consumption, and most of the other disorders to which the English are subject, proceed from repletion, because the inhabitants generally neglect bleeding too much.

Besides consumption of the lungs, the rickets are endemial to the English, especially in the western parts. This disorder seizes children, and discovers itself by rendering their heads preternaturally large, their flesh lax and spongious, their abdomens turgid, their eyes prominent, and their bodies weak and crooked. This disorder principally arises from a weak and flaccid state of the nerves and membranes, a defect of spirits, and an unequal distribution of the nutritious juices. Hence it is called *rachitis*, because its chief seat is thought to be fixed in the spine of the back.

At Naples, besides the venereal disorder, the endemial diseases are red spots on the skin, sometimes disappearing, and then breaking out afresh. These spots are ascribed to their houses and aliments. The former of these are lofty and dark, and the latter consist of beef, pork, and cabbage, which the inhabitants feed on in large quantities.

The Venetians are subject to the piles, and their several consequences, for which reason, leeches are so much used by them, that they frequently contract fistulas of the anus. The cause of this is justly ascribed to the liberal use of Italian wine. And in general, we may observe, that the inhabitants of those countries in which wines, especially of the sweet kind, are spontaneously produced, are more subject to the bleeding piles, than those who live in barren climates, in which only water and malt liquors are drank; for wines of this kind generate large quantities of blood, and easily throw it into orgasms, or preternatural commotions.

There is a species of fever at Rome, principally incident to the priests, nobility, courtiers, young persons, and such as lead an idle and luxurious life, and live in a hot climate; for which reason, it is also endemial in Ethiopia. In persons who lead idle and inactive lives, all rich and delicate aliments generate large quantities of blood, which, producing constipation and obstructions of the viscera, lay a foundation for various terrible distempers.

The epilepsy is very familiar and endemial to the inhabitants of Tuscany; for which reason, they cauterize the heads of new-born children, according to Malthasar de Vias, in *Sylvia Regia*.

In Spain the inhabitants are very subject to hypochondriac melancholy, which may be justly ascribed to their indolent and inactive turn, their sedentary lives, and profound speculations: besides, they indulge themselves too soon in venery, and drink but little wine. Many of their nobility, and those in opulent circumstances, are cut off by apoplexies, which, without doubt, arise from a redundance of blood, generated by their delicate manner of living, their drinking rich and generous wines, and their daily use of chocolate.—But it is remarkable, that the itch and scurvy are not known in Spain, though they daily eat large quantities of fresh pork; for the air of that kingdom is highly subtil and penetrating, their water pure and light, and the food used without salt. In consequence, therefore, of a free perspiration, and an open and unobstructed state of the cutaneous pores, the coarse and thick particles of the serum are exhaled, which, when stagnating in the pores and glands of the skin, produce those eruptions that appear in the itch and scurvy.

The United Provinces, and especially Holland, are very subject to the scurvy, and it draws its origin partly from their strong food, sea-fishes, and smoaked flesh, and partly from their dense and moist air, together with their bad water. Besides

the scurvy, the inhabitants of these provinces are very subject to the stone of the kidneys and bladder.

Among those who inhabit the coasts of the Baltic sea, such as the Danes, the Swedes, the Norwegians, the Pomeranians, the Livonians, and the inhabitants of Courland, the scurvy is a very common and endemial disease.

In short, climate and situation are the main springs of health or disease.

Having thus far prefaced the subject of this series of articles we shall commence with

DISEASES OF THOSE WHO SIT MUCH, PARTICULARLY TAILORS AND SHOEMAKERS.

Tradesmen who lead a sedentary life, such as shoemakers and tailors, are exposed to peculiar diseases; both these, and all other artificers, whether men or women, who work in a sitting posture, are so deformed by it, as to have their necks and heads hanging down as if they were looking for something on the ground. They are not so much hump-backed as round about the shoulders, the vertebræ of the back being equally protuberant. As they sit crooked at their business, the ligaments of the vertebræ are distorted, and contract a collosity, therefore, cannot return to their natural posture.—Wedelius mentions a shoemaker who was thus crook-backed to an incurable degree, because he had neglected it in his youth.

Tailors, being obliged to place their feet to their thighs when they work, are often troubled with a numbness of the legs, lameness, and sciatica. It is a remarkable fact, that the societies of tailors and shoemakers, when they make their public processions, two by two upon festival occasions; or when they follow at the funerals of their relations, that they incline sometimes to one side, sometimes to another, as if arising more from design, than the consequent effect of their employment.

The sedentary tradespeople are likewise liable to be scabby and ill-complexioned, as are also needle-women, who work at home night and day; for if the body be not moved, the blood grows foul, its excrements stick in the skin, and the whole habit of the body is tainted. They are likewise more soluble in the body than those who follow exercise; for, as Hippocrates informs us, the excrements of the latter are scanty, yellow, and hard: and the same author describes the case of one Cleotimus, a shoemaker, who, from the nature of his employment, contracted a swelling in the region of the liver, and a laxity of the belly: as also the case of another, who voided much blood at the nose, although the evacuations by stool were moderately regular.

In fine, their sedentary life exposes them to an ill habit of body, and a manifold redundancy of vicious humours. But all sitting tradesmen are not equally exposed; for potters, weavers, and others, who exercise their hands and feet, and the whole body, are of a healthier constitution; the impurities of their blood being more easily discussed by that motion. Weavers, indeed, frequently complain of a pain in the loins, which proceeds from the violent motion and great force which they are obliged to use in weaving coarse cloths, and that which is made of hemp; and this piece of service being generally alloted to women, we find, that those who have large stomachs, are very apt to miscarry; for the force of that motion jogs the fœtus. Our country women will, however, bear a great deal without receiving any injury. It is observable, that not only weavers, but all sedentary artificers are subject to a pain in their loins.

We cannot see what preservatory cautions can be given to these tradesmen, as long as the occasional cause is in force, and necessity obliges them to work at their trade: purging indeed in spring and fall will prevent the collection of so great a redundance of humours, so that they will not be so often sick. They must be

sure to exercise their bodies on holidays, and repair the damage of many days sitting by exercise at their leisure. When they are actually confined to their beds, either by the above-mentioned or any other disorders, we must endeavour to evacuate the humours, and have a careful eye upon the parts which are most affected by their business.

Tailors and shoemakers should be carefully attentive to the following points:

1. When an idle moment occurs, to walk briskly, jump, dance, &c.

2. Work in a place that is not either too hot or too cold.

3. Instead of going to sit in a public house, they should, in summer, adjourn to a field and play at quoits; this game being peculiarly healthful to sedentary people: and in winter dancing, running, or walking.

4. They should not lie with their heads high.

5. Their diet should contain less of flesh meat, than tradesmen who work in the open air.

And 6. They should take two or three of the following pills occasionally, when irregular in their bowels:

PILLS FOR SEDENTARY PERSONS.

Take of extract of rhubarb, half a drachm,
Of extract of colocynth, a scruple,
Of scammony, a scruple.
Mix and make into fourteen pills.

As tailors are subject to various affections of the legs from constant pressure upon their vessels, they should observe to rub their knees and hams well on rising from work; and if shoemakers feel a numbness in the thighs at any time, they should also rub well the same parts. Let both avoid drinking much water as well as much spirits—a little beer, however, is absolutely necessary.

DIRECTIONS AND CAUTIONS TO BE OBSERVED IN BATHING.

CONDITION OF THE BODY REQUIRED.

At watering places it is too common a practice for bathers to walk slowly along the sea-side, lest they should become heated; and even reposing, with careful solicitude, on the open beach, exposed to the keen blast until they are *cool enough* to bathe. Of all errors, this is one of the most fatal; and it were better, like Falstaff, to plunge into the water "hissing hot," than to enfeeble the living forces of the system by so baneful a piece of caution. A moderate temperature is necessary, but to wait until the body becomes almost chilly, must be decidedly injurious.

SUITABLE TIME.

It cannot be expected that very early in the morning, after the invalid has just risen, before the regular actions of the economy have resumed their usual force, he will be enabled to resist, with suitable energy, the chilling gale from the sea, or the more powerful shock of immersion. At five or six o'clock in the morning we may see our bathing rooms filled with delicate females, or debilitated men, shivering at every blast which salutes them from the naked beach, waiting their turn, pale with anxiety and cold, to quench in the chilling flood the little spark of vigour that may yet remain in their enfeebled frames. We cannot wonder, then, if patients do not derive benefit in such a depressed state of the energies of body and mind; nor are we surprized at injury being sustained from so injurious a practice.

The evening was the time formerly chosen for taking this refreshing exercise; and at the close of the day we now see this practice attended to by the youth of our towns. In a state of high health and full and strong action of the system, it is indifferent at what time of the day bathing is performed: but generally, after the employments of the day, weariness and fatigue are induced, the excitabi-

lity of the system is lessened, and bathing, under such circumstances, must prove prejudicial to health.—When, however, the heat of the air is oppressive, and the difference of temperature between the two elements is not very considerable, bathing in the evening may be attended to, not only without loss of vigour, but even with a refreshing and beneficial effect. The night will pass agreeably, and cool and invigorating sleep, with soft moist skin, will be the beneficial consequences.

It is certain that the time must, in some degree, be regulated by the tide; but several periods of the day may be selected, before or after high water, when bathing may be very pleasantly and conveniently practised, and with the additional advantage of the water not being so greatly different in temperature from the atmosphere.

The sea, in the course of a few hours, when the sun is strongly acting on it, will acquire a considerable degree of heat. The middle of the day, however strange the direction may seem, is, from the best analogy, by far the most suitable period for sea bathing; and our own experience expressly confirms the theory—since we have generally seen more decisive and effectual good from bathing at any hour after breakfast, before two o'clock in the afternoon, than at any other time of the day.

We request to be understood, that this advice is given exclusively to the enfeebled and languid valetudinarian. It does not apply to those whose constitutional vigour will enable them to compensate for the great loss of vital warmth necessarily sustained under other circumstances. Here, however, it is necessary to observe, that the man who generally enjoys good health must submit to the restrictions imposed on the invalid, if he has committed any excess over night: a few hours ought to be allowed in such cases for nature to recruit her energies, before bathing is attempted.

These remarks are not, by any means, intended as a dissuasive from early rising—to the practice of which the object of bathing early gives a powerful incentive. We think it an incumbent duty to offer our most matured opinions, supporting them by the best arguments we can adduce. Having so done, we believe that those who are solicitous of recovering health will not despise the instructions given, nor dissipate their too small stock of strength in the enervating indulgence of lying long in bed. The morning walk will be an excellent substitute for the employment of bathing: the cool air of the morning will suitably prepare the body for the impression of the greater cold of the bath.

The fine glow of warmth, and attendant elasticity of mind, consequent on moderate exercise in the refreshing breeze, will be the surest protection from injury in bathing, and infuse a confident expectation of realizing the fullest benefit from the remedy.

BATHING AFTER A SLIGHT REPAST ADVISED.

Nothing is so common amongst mankind as to run into extremities.—The practice of bathing after full meals is so obviously improper, that it is generally avoided: but to escape this error it is not necessary that bathing should be performed after the stomach has remained some hours empty, and by consequence a languid and exhausted state of the system prevails.

The effect of bathing in a replenished state of the alimentary organs would be to induce a highly dangerous fulness and distention of the vessels; but it certainly seems very proper for the feeble and weak to take a slight breakfast of tea or coffee, a little chocolate or arrow-root, or some trifling refection—liquid, of course, that it may not occasion resistance—in order that the body may be fitted to renew those beneficial movements of which we have so often spoken.

TIME IN THE BATH.

Guides and other attendants, who are in health, and inured to the practice, may remain for hours uninjured in the water—but this insusceptibility is only to be acquired by habit.

From the history of the crew of the vessel shipwrecked in the river Mersey, it will appear, that constant

immersion is less injurious than repeated plunges.

As the whole benefit may be obtained by one complete submersion, it is safer for delicate persons to content themselves with one plunge, until they gradually attain the power of remaining longer immersed. The system sustains less injury by remaining immersed a short time, than by repeated plunges.

MODE OF BATHING.

Here three things appear deserving attention:

1. The preparation of undressing; which should be as quick as possible, that the body may not lose its warmth. A flannel dress is useful, to throw over the body until the moment of entering the water.

2. The immersion should be quick and instantaneous, if possible. The mode of throwing the body into the water head-foremost, if practicable, is to be preferred. Without inquiring largely into the merits of this method, it may be briefly stated, that on entering the water slowly, by walking into it, the feet and legs receive the first impression of cold, and the blood, which retires hastily from the vessels of those parts, is propelled into the internal organs; and of these the brain receives a large proportion, from which serious disorder may often result. Thus is simply explained those violent head-aches, giddiness, and indigestion, which frequently succeed the employment of the cold bath.—If the timidity of the patient, on the first attempts, precludes the observance of this rule; let the body sink down into the water quickly, until, by a proper degree of stooping, the whole body and head are covered by the sea; or water may be affused over the head at the same moment that the patient makes the descent into the water.

3. Let warm clothing be instantly resumed on leaving the water. It has been already suggested, that the loss of vital power by evaporation, when the body is exposed wet to the air, far exceeds that from the cold of immersion. To avoid much shivering, which is often very severe in delicate habits, let the body be wrapped at once with a loose flannel gown: the salutary glow will instantly follow, and the absorbing dress will remove the greatest part of the moisture from the skin. The usual garments should be immediately resumed. The invalid should never return to his bed after bathing; for the revived efforts of the constitution will be made in excess, and the copious perspiration, which often happens, counteracts the bracing and tonic effects of the bath.

EMPLOYMENTS AFTER BATHING.

The regenerated warmth and the renovated vital movements of the body, are best perpetuated after bathing, by a moderate degree of exercise. A walk, or gestation on horseback or in a chaise, will prove very useful in maintaining and prolonging the salutary efforts of the constitution: but it is sufficiently evident that these exercises will cease to be beneficial when they induce weariness and fatigue.—Exercise in the sun producing much perspiration, should for the same reason be avoided.

REPETITION OF BATHING.

It is a trite but true remark, that things which are in themselves salutary, become baneful in excess. Thus exercise, in a moderate degree, increases the tone of the system and augments vigour; but in excess, it enfeebles and depresses the energies of life. The frequency of cold bathing must depend on the temperature of the medium, and on the constitution of the patient. A bath, not much colder than the external air, can be repeated oftener with safety than when the difference of the sea and atmosphere is relatively greater. Healthy persons can bear more frequent immersion than the more delicate; but it is not so often required for them. If (as a general rule) bathing be employed every other day, or at most four times in a week, all the advantages which can arise from the use of the cold bath will be attained. The pernicious effects of too frequent bathing is to be

seen in boys, who delight in this gratification, but practise it oftener than prudence allows. They become in a short time emaciated and weak, and suffer from irregularity of digestion; and this may be carried to a point, from which it may be impossible for the constitutional powers to rally, or recover their natural force.

ON INURING TO THE COLD BATH.

The concussion which the system receives on first using the cold bath, and the tumult in the vital actions which often remains for some considerable time, renders the direct use of the cold bath (which does not exceed 65 deg.) to persons of irritable habits, a source of great danger and injury.

It is an established law of nature, that small transitions may be made without hazard, until a great dereliction of our usual habits may be allowed, without perceiving any sensible inconvenience. The practice of encountering abrupt and excessive changes of temperature is fraught with the utmost peril to the tender and sensitive frame.

We would therefore seriously recommend those, for whose cases cold bathing is applicable, who might sustain injury by the too powerful impression of an unaccustomed exercise, to commence their trials in a tepid bath, the heat of which differs but little from the temperature of the blood; and by diminishing the heat a few degrees occasionally, as the feelings will permit, in a short time the cold bath may be fearlessly and safely resorted to.

The necessity of thus attemperating the medium to the feelings of the bather may be sometimes dispensed with, when the warmth of the sea approximates nearer to that of the body, and by observing the most suitable period of the day for employing the bath.

PROPER PHYSIC TO BE TAKEN BEFORE A COURSE OF BATHING.

Take of the extract of jalap, and
Of the extract of rhubarb, each half a scruple,
Of calomel, 2 grains.

Mix,—and make into four pills; take two at night, and two in three nights after.

Bathing may be commenced safely in three days after the operations of the physic.

POPULAR REMEDIES EXAMINED.

FOR WARTS.

Oil of vitriol rubbed upon the parts.

This is at least a clumsy remedy, and is liable to do mischief. The following means never fail in removing warts:

Take a little lapis infernalis, (infernal stone,) and rub it, moistened, to the parts; then bind the warts with sticking plaister, and leave it so for three or four days. If not quite removed, another application will suffice.

FOR BLACK EYES.

The juice of the root of the herb called Solomon's Seal, or briony root, rubbed on the discoloured parts.

This is a good application, after the inflammation is gone, and a yellowness appears; and care should be taken not to let the juice get into the eye; but it should by no means be used while inflammation exists.

HOW TO MAKE SODA-WATER.

Water, 10 pints
Prepared natron, 2 ounces
In half-pint bottles.

SEIDLITZ POWDERS.

Take tartarized soda, 2 drachms, and
Carbonate of soda, 2 scruples, in one paper
Acid of tartar, 35 grains, in the other, for half a pint of water.

SODA POWDERS.

Take carbonate of soda, half a drachm in each blue paper
Acid of tartar, 25 grains in each white paper
Water, half a pint

Divided into two tumblers; into one put the soda, and into the other the acid contained in their respective papers: then add them together, and drink during the effervescence: a pleasant cooling beverage in summer.

FRIENDLY ADVICE TO FEMALES,

ON COMPLAINTS PECULIAR TO THEIR SEX.

BESIDES the diseases to which women are liable in common with men, their sex also exposes them to others peculiar to it, and which depend upon four principal sources: which are, their periodical illnesses, their pregnancies, the labours in child-birth, and the consequences of their labours. It is not the present design to treat technically on each of the diseases arising from these causes, which would require a greater extent than we have proposed, but we shall confine ourselves to certain general directions on these four heads.

Nature, who intended women for the increase of the human race, and their nourishment at the breast, has subjected them to a periodical change, which constitutes the source from whence the infant is afterwards to receive his nutrition and growth.

This generally commences between the age of sixteen and eighteen. Young maidens before this period, are frequently, and many for a long time, in a state of weakness, attended with various complaints, which are termed the chlorosis, or green-sickness, and obstructions; and when their appearance is extremely slow and backward, it occasions very grievous and sometimes even mortal diseases. Nevertheless it is too usual, though very improper, to ascribe all the evils to which they are subject at this term of life, solely to this cause; while they really often result from a different cause, of which the obstructions themselves are sometimes only the effect; and this is the natural, and, in some degree, even necessary feebleness of the sex. The fibres of women which are intended to be relaxed and to give way when they are unavoidably extended by the growth of the child, and its enclosing membranes, (which frequently arise to a very considerable size,) should necessarily be less stiff and rigid, less strong, and more lax and yielding, than the fibres of men. Hence the circulation of their blood is more slow and languid than in males; their blood is less compact and dense, and more watery; their fluids are more liable to stagnate in their different passages, and to form obstructions.

The disorders to which such a constitution subjects them, might in some measure be prevented, by assisting that languor or feebleness of their natural movement, with such an increase of their force as exercise might contribute. But this assistance, which in some manner is more necessary for females than males, they are partly deprived of, by the general education and habitude of the sex; as they are usually employed in managing household business, and such light sedentary work, as afford them less exercise and motion than the more active occupations of men. They stir about but little, whence their natural tendency to weakness increases from habit, and thence becomes morbid and sickly. Their blood circulates imperfectly; its qualities become impaired; the humours tend to a very general stagnation; and none of the vital functions are completely discharged.

From such causes and circumstances, they begin to sink into a state of weakness, sometimes while they are very young, and many years before this periodical change could be expected. This state of languor disposes them to be inactive; a little exercise soon fatigues them, whence they take none at all. It might prove a remedy, and even effect a cure, at the beginning of their complaint; but as it is a remedy that is painful and disagreeable to them, they reject it, and thus increase their disorders.

Their appetite declines with the other vital functions, and gradually becomes still less; the usual salutary kinds of food never exciting it: instead of which, they indulge themselves in whimsical cravings, and often of the

most improper substances for nutrition, which entirely impair the stomach with its digestive functions, and consequently health itself.

But sometimes, after the duration of this state for a few years, the ordinary time of their monthly illness approaches, which however make not the least appearance, for two reasons. The first is, that their health is too much impaired to accomplish this new function, at a period when all the others are so languid: and the second is, that under such circumstances, the evacuations themselves are unnecessary; since their final purpose is to get rid of (when the sex is not pregnant) that superfluous blood, which they were intended to produce, and whose retention would be unhealthy, when not applied to the growth of the fœtus, or nourishment of the child: and this superfluity of blood does not exist in women, who have been long in a very low and languishing state.

The disorder, however, continues to increase, as every one daily must, which does not terminate.—This increase of it is attributed to the suppression or non-appearance of their monthly change, which is often erroneous; since the disorder is not always owing to that suppression, which is often the effect of that distemperature. This is so true, that even when the change happens, if their weakness still continues, the patients are far from being the better for it, but the reverse. Neither is it unusual to see young lads, who have received from nature, and from their parents, a sort of feminine constitution, education, and habitude, infested with much the same symptoms, as obstructed young women.

Country girls who are generally more accustomed to such hardy work and exercise as country men, are less subject to these complaints, than women who live in cities.

Let people then be careful not to deceive themselves on this important account; since all the complaints of young maidens are not owing to the want of their customs. Nevertheless, it is certain there are some of them, who are really afflicted from this cause. For instance, when a strong young virgin in full health, who is nearly arrived at her full growth, and who manifestly abounds with blood, does not obtain this change at the usual time of life, then, indeed, this superfluous blood is the fountain of many disorders, and more violent ones than those, which result from the contrary causes already mentioned.

If the inactive girls of the city are more subject to the obstructions, which either arise from the weakness and languor we have formerly taken notice of, or which accompany it; country girls are more subject to complaints from this latter cause (too great a retention) than women who live in cities; and it is this last cause that excites those singular disorders, which appear so supernatural to the common people, that they ascribe them to sorcery. And even after these periodical changes have appeared, it is known that they have often been suppressed, without the least unhealthy consequence resulting from that suppression. They are often suppressed, in the circumstances mentioned before, by a continuance of the disease, which was first an obstacle or retardment to their appearance; and in other cases, they have been suppressed by other causes, such as cold, moisture, violent fear, any very strong passion; by too chilly a course of diet, with indigestion; or too hot and irritating diet; by drinks cooled with ice, by exercise too long continued, and by unusual watching. The symptoms, occasioned by such suppressions, are sometimes more violent than those, which preceded the first appearance of the change.

The great facility with which this evacuation may be suppressed, diminished, or disordered, by the causes already assigned; the terrible evils which are the consequences of such interruptions and irregularities of them; seem to us very cogent reasons to engage the sex to use all possible care, in every respect, to preserve the regularity of them; by avoiding, during their approach and continuance, every cause that may prevent or lessen them.

Would they be thoroughly persuaded, not solely by our advice, but by that of their mothers, their relations, their friends, and by their own experience, of what great importance it is to be very attentive to themselves, at those critical times, there is not one woman, who from the first to the very last appearance of them, would not conduct herself with the most scrupulous regularity.

Their demeanour, in these circumstances, very fundamentally interests their own health, as well as that of their children; and consequently their own happiness, as well as that of their husbands and families.

The younger and more delicate they are, caution becomes the more necessary for them. We are very sensible a strong country girl is too negligent in regulating herself at those critical seasons, and sometimes without any ill consequence; but at another time she may suffer severely for it; and we could produce a long list of many, who, by their imprudence on such occasions, have thrown themselves into the most terrible condition.

Besides the caution with which females should avoid these general causes, just mentioned, every person ought to remember what has most particularly disagreed with her during that term, and for ever constantly to reject it.

There are many women whose changes visit them without the slightest impeachment of their health: others are sensibly disordered on every return of them; and to others again they are very tormenting, by the violent cholics, of a longer or shorter duration, which precede or accompany them. These violent attacks often last but some minutes, and others continue several hours. Nay, some indeed persist for many days, attended with vomiting, fainting, and convulsions from excessive pain; with vomiting of blood; bleedings from the nose, &c. which, in short, bring them to the very jaws of death. So very dangerous a situation requires the closest attention: though, as it results from several and frequently very opposite causes, it is impossible, within the present plan, to direct the treatment that may be proper for each individual. Some women have the unhappiness to be subject to these symptoms every month, from the first appearance, to the final termination of these affections, except proper remedies and regimen, and sometimes a happy child-birth, remove them.—Others complain but now and then, every second, third, or fourth month; and there are some again, who having suffered very severely during the first months or years, after their first eruptions, suffer no more afterwards. A fourth number, after having had their changes for a long time, without the least complaint, find themselves afflicted with cruel pains, at every return of them; if by imprudence, or some inevitable fatality, they have incurred any cause, that has suppressed, diminished, or delayed them. This consideration ought to suggest a proper caution even to such, as generally undergo these discharges without pain or complaint: since all may be assured, that though they suffer no sensible disorder at that time, they are nevertheless more delicate, more impressible by extraneous substances; more easily affected by the passions of the mind; and have also weaker stomachs at these particular periods.

These discharges may also be sometimes too profuse in quantity, in which case the patients become obnoxious to very grievous maladies; in the discussion of which we shall not enter here, as they are much less frequent than those, arising from a suppression of them. Besides which, in such cases, recourse may be had to the directions we shall give hereafter, when we treat of the quantity of blood, which it may be expedient to lose during the course of gravidation or pregnancy.

Finally, even when they are the most regular, after their continuance for a pretty certain number of years, (rarely exceeding thirty-five) they go off of their own accord, and necessarily, between the age of forty-five and fifty; sometimes even sooner, but seldom continuing longer; and this

crisis of their ceasing is generally a very troublesome, and often a very dangerous one, for the sex.

The evils mentioned may be prevented, by avoiding the causes producing them; and,

1. By obliging young maidens to use considerable exercise; especially as soon as there is the least reason to suspect the approach of this disorder, the chlorosis, or green sickness.

2. By watching them carefully, that they eat nothing unwholesome or improper; as there are scarcely any natural substances, even among such as are most improper for them, and the most distasteful, which have not sometimes been the objects of their sickly, their unaccountable cravings. Fat aliments, pastry, farinaceous or mealy, and sour and watery foods, are pernicious to them. Herb-teas, which are frequently directed as a medicine for them, are sufficient to throw them into the disorder, by increasing that relaxation of their fibres, which is a principal cause of it. If they must drink any such infusions, as medicated drinks, let them be taken cold: but the best drink for them is water, in which red hot iron has been extinguished.

3. They must avoid hot sharp medicines, and such as are solely intended to force nature, which are frequently attended with very pernicious consequences, and never do any good: and they are still the more hurtful, as the patient is the younger.

4. If the malady increase, it will be necessary to give them some remedies; but these should not be purges, nor consist of diluters, and decoctions of herbs, of salts, and a heap of other useless and noxious ingredients; but they should take filings of iron, which is the most certain remedy in such cases. These filings should be of true simple iron, and not from steel; and care should be taken that it be not rusty, in which state it has very little effect.

At the beginning of this distemper, and to young girls, it is sufficient to give twenty grains daily, enjoining due exercise, and a suitable diet. When it prevails in a more severe degree, and the patient is not so young, a quarter of an ounce may be safely ventured on: certain bitters or aromatics may be advantageously joined to the filings. The following constitute the most effectual remedies for this complaint, to be taken in the form of powder, of vinous infusion, or of electuary.

No. 1.

Take of filings of iron, not the least rusty, an ounce;
Of anniseeds, powdered, half an ounce.

After rubbing them well together, divide into twenty-four parts, one of which take three times a day, an hour before eating.

No. 2.

Take of sound iron, two ounces;
Of leaves of rue and white horehound, one handful each:
Of black hellebore root, one quarter of an ounce.

Infuse the whole in three pints of wine, kept in a wide-mouthed bottle, and placed so as to be always kept hot, and to remain twenty-four hours; shaking well four or five times; then let it settle and strain it.

The dose is one small cup, three times a day, an hour before eating.

No. 3.

Take of filings of iron, two ounces;
Of rue leaves and anniseed, each, half an ounce;

Add to them a sufficient quantity of honey to make it of good consistence.

Dose, three quarters of an ounce, three times a day.

When there is a just indication to bring down the discharge, the vinous infusion, (No. 2.) must be given, and generally succeeds: but we must again repeat, (as it should carefully be considered,) that the stoppage or obstruction of this discharge is frequently the effect, not the cause, of this disease; and that

there should be no attempt to force it down, which, in such a case, may sometimes prove more hurtful than beneficial; since it would naturally return of its own accord, on the recovery and with the strength of the patient, as their return should follow that of perfect health, and neither can precede health, nor introduce it. We must here repeat, the more strongly, in order to inculcate so important a point, that in females who have been long ill and languid, our endeavours must be directed to the restoring the patient's *health* and *strength*, and not to the forcing down the usual changes, which is a very pernicious practice. These will return of course, if the patient is of proper age, as she grows better.

There are some cases particularly, in which it would be highly dangerous to use hot and active medicines, such cases, for instance, as are attended with some degree of fever, a frequent coughing, a hæmorrhage or bleeding, with great leanness and considerable thirst: all which complaints should be removed, before any medicines are given to force this evacuation, which many very ignorantly imagine cures all other female disorders; an error, that has occasioned the premature loss of many women's lives.

While the patient is under a course of these medicines, she should not take any of those we have forbidden above, and the efficacy of these should also be furthered with proper exercise. That in a carriage is very healthy; dancing is so too, provided it be not extended to an excess. In case of a relapse in these disorders, the patient is to be treated, as if it were an original attack.

The other sort of obstructions described, require very different treatment. Bleeding, which is hurtful in the former sort, and the use, or rather abuse, of which, has thrown several young women into irrecoverable weaknesses, has often removed this latter species, as it were, in a moment. Bathing of the feet, and taking a little nitre in whey, have frequently succeeded: but at other times it is necessary to accommodate the remedies and the method to each particular case, and to judge of it from its own peculiar circumstances and appearances.

When these evacuations naturally cease through age, if they stop suddenly and all at once, and had formerly flowed very largely, bleeding must,

1. Necessarily be directed, and repeated every six, every four, or even every three months.

2. The usual quantity of food should be somewhat diminished, especially of flesh, of eggs, and of strong drink.

3. Exercise should be increased.

4. The patient should frequently take, in a morning, fasting, twenty grains of cream of tartar, which is very beneficial in such cases; as it moderately increases the natural excretions by stool, urine, and perspiration; and thence lessens that quantity of blood, which would otherwise superabound.

Nevertheless, should this total cessation of the monthly change be preceded by, or attended with, any extraordinary loss of blood, which is frequently the case, bleeding is not so necessary; but the regimen and powder just directed are very much so; to which the following purge should now and then be joined, at moderate intervals:—

Take an ounce of the pulp of tamarinds;
Half a drachm of nitre;
Four ounces of water.—Boil for a minute, and add two ounces of manna.—Then strain.

The use of astringent medicines at this critical time might dispose the patient to a cancer of the womb.

Many women die about this age, as it is but too easy a matter to injure them then; a circumstance that should make them very cautious and prudent in the medicines they use. On the other hand, it frequently happens, that their constitutions alter for the better, after this critical time of life; their fibres grow stronger; they find themselves sen-

sibly mor hearty and hardy; many former slight infirmities disappear, and they enjoy a healthy and happy old age. We have known several who threw away their spectacles at the age of fifty-two or fifty-three, which they had used five or six years before.

The regimen we have just directed, the powder of cream of tartar, and the potion of tamarinds, agree very well in almost all inveterate discharges (we speak of the female peasantry) at whatever time of life.

ADVICE ON THE MANAGEMENT OF THE TEETH,

TO PROMOTE THEIR PRESERVATION AND BEAUTY.

THE first and most important object is cleanliness of the mouth, which is the only preventive of disease. Of the various causes of diseases of the teeth, we have found that the greater part, as enumerated by writers, are merely theoretical, and are built on no solid facts. The only true cause of all the diseases to which they are liable, is the contact of the accumulation, and the action of that matter upon them, which forms the relics of our food and beverage, and which operates by undergoing the putrefactive process, as a deleterious poison or corroding agent to their structure.

Where the teeth are kept clean and free from such matter, no disease will ever arise. Their structure will equally stand against the summer's heat, and winter's cold; against the changes of climate, the variations of diet, and even the diseases to which the other parts of the system may be constitutionally subject.

This being the case, the means of prevention are clear and simple; namely, to avoid the accumulation of matter which injures their substance; and it is in the mode of cleaning them, that the whole secret of avoiding diseases consists.

The means commonly resorted to, are the use of the brush, joined with the friction of tooth powder; but, that both brushes and dentrifrices, as they are at present used, however ingeniously contrived or often employed are insufficient for the purposes of effectually cleansing, is obvious from this circumstance, that the teeth and gums are still left in a diseased state.—Tooth powders being generally composed of acid ingredients, are evidently hurtful, by their chemical agency.

The brushes and powders are generally applied to the outside only of the teeth; and to shew the injury of these applications, we shall make some observations on their composition and nature. The sulphuric acid, or oil of vitriol, from its peculiar and well known property, of giving a beautiful white appearance to the teeth, forms a principal ingredient in all those ruinous compositions, sold under the title of tinctures, or pastes. In tinctures and lotions, it is combined with some spirituous or watery infusion, of an aromatic nature, variously coloured and scented, according to the taste of the composer. In the paste it is united with some gritty powder, to which a light vegetable matter is added, when the whole is made of a proper consistence with honey, or other glutinous substance. The powders, also, not admitting the acid in its natural form, have corrosive salts substituted, such as cream of tartar, alum, &c. &c. united with powder, which often consists of brick-dust, blended with some other ingredient, to colour and conceal it. But, besides these compositions, which are expressly sold for the purpose, many are in the habit of using substances at their own option for cleaning the teeth, without having recourse to these advertised specifics. Of this kind, soot is one; to which we see no other objection, than that it is a dirty, disagreeable, and indelicate substance. Its use has, perhaps, arisen from the observation, that chimney sweepers have white teeth. This is generally more in appearance than in reality; when examined it is found to be occasioned by the contrast of the face with the natural colour of the teeth. Another substance in much greater use of late years, for the purpose of cleaning teeth, is charcoal pulverized; but highly as it is celebrated for its antisep-

tic qualities, is is very improper as a dentifrice; for, however fine may be the powder to which it is reduced, every chemist knows, that the substance continues perfectly insoluble.—The finer indeed it is pulverized, the easier is the admission it finds between the teeth and gums, where its insinuation, like every other extraneous matter, is a perpetual source of irritation and disease; and its constant friction may injure the health and beauty of the gums; its effect also, as a purifier of the breath, is very transient.—Dentifrices similar to charcoal, are formed by the burning of bread, leather, beetle nut, peruvian bark, &c.; in their effects, however, they all differ little from common charcoal; gunpowder and iron rust, is another composition in use, but it owes its quality entirely to the charcoal, as the nitre it contains is in too small a quantity to be of any use. Prepared alum is another substance used for the same purpose; but, being a combination of sulphuric acid and clay, when it comes in contact with the teeth, it undergoes a decomposition, and they are consequently exposed to the action of the acid.—The same injury arises from the use of cream of tartar, which, though it whitens the teeth, acts powerfully on the enamel.

The best dentifrice that can be used, is common table salt; it is perfectly innocent, as it completely dissolves in the saliva, and produces all the friction that is necessary for cleansing the teeth. Nitre, is also a valuable application, both as it reduces the inflammation of the gums, and removes the tough viscid slime, which is then apt to collect in the mouth.

It may, perhaps, be necessary to give some directions for cleaning the teeth, adapted to the varieties of age.

In childhood, before the loss of the temporary teeth, the mouth should be regularly cleaned every evening, the relics of the food, which have been all the day accumulating, are thus prevented from committing their ravages during the night; and the habit of cleanliness will become fixed, from being so essentially connected with personal comfort. The brush should at first be but gently applied, and then particular care taken to pass a waxed silk in the interstices, and round the necks of the teeth, where lodgements of the food (the causes of disease) are usually formed. Warm water is always preferable to cold for cleaning the mouth, from its being a better solvent of the usual articles of their diet. But when the permanent teeth begin to make their appearances, then is the time that the greatest attention to cleanliness is particularly necessary.

It is a common practice with most people after meals, to make use of a tooth-pick, to remove whatever may be lodged between the teeth. This practice, however, is highly to be reprobated; the constant use of a tooth-pick cannot fail to make improper openings between the teeth; and when once that part of the gum which forms the arch, is removed from their interstices, a small hollow is made for the reception of accumulating matter, which, if neglected to be removed, will, from its immediate action on the bone, rapidly excavate a tooth, and produce early pain, that would never have existed, but for the use of so improper an instrument.

Some popular writers have objected entirely to the use of hard brushes, and considered the finger as sufficient for cleaning the teeth, on account of its soft pliancy, and the gentle roughness of its papillary vessels. But, if this were sufficient, the tongue would answer yet better; for its papillary vessels are still more numerous, and it possesses also greater sensibility, softness, and pliancy; yet, with all these advantages, it does not prevent the accumulation of tartar, which is always more abundant on the inside of the teeth, where the action of the tongue is most powerful. The same objection may be applied to cleaning the teeth with a cloth, which, though it may partially remove what is on the surface, cannot, from their inaccessible situation, act on those parts that it is of the most importance should be kept clean.

Many people suppose that the gums cannot be preserved in a healthy state, unless they are exposed to the daily

friction of the brush. This, however, is a mistaken opinion; and, indeed, if the friction is constantly applied in a perpendicular direction, it will, by forcing them from the teeth, be highly injurious. If the gums are actually diseased, the application of a composition of salt and alum, in the proportion of one of the latter to four of the former, either in a state of solution, or used as a powder, will, in the course of two or three days, effect a temporary cure; when, if the tartar is immediately removed, and the interstices of the teeth kept clean, no other means will be necessary to keep them perfectly pure and wholesome for the remainder of life.

DOMESTIC ADVICE ON THE TEETH.

It is a fact well known, and which every one's experience daily confirms, that few persons pass through life, without more or less inconvenience from diseases of the teeth. In infancy, we have seen that their formation and growth is the source of great and constant anxiety to the fond parent; and that they produce deviations from health, which often continue for the remainder of life; for, at that early period, constitutional diseases are called into action by the irritation of dentition, which would otherwise have remained dormant.

But that period of childhood at which the temporary teeth begin to shed, is the critical time that calls for the attention of parents: for, by neglect at that time, irregularities are, as we have seen, apt to arise, which might easily have been prevented by proper care, and a due attention to cleanliness of the mouth.

The chief deformities produced by irregular teeth, are the rabbit mouth, and the projecting chin. (*See Plate.*) But these and all other defects, may be prevented by timely attention.

The rabbit mouth is caused by a preternatural projection of the front teeth in the upper jaw, accompanied by a deformed irregularity in their arrangement.

The projecting chin chiefly arises from a casual irregularity in the protrusion of the front teeth in the under jaw, which assumes an unnatural projection, while those of the upper jaw do not advance sufficiently forward, the direction of their points when in contact being contrary to what nature intended; for the incisores of the upper jaw are within, or on the inside of those of the under, instead of standing out beyond them.

In proportion as the teeth grow, the deformity becomes increased and more conspicuous; and so disagreeable is it, that physiognomists have attached to it a brutal disposition.

This instance is sufficient to shew, how much depends on domestic attention; for teeth that are too prominent or irregular, can always, by pressure made at an early period, be brought into their proper arrangement; so that it is not the means of cure that are wanting, but inclination in those concerned to apply them. That disagreeable appearance termed the rabbit mouth, is always in the power of the dentist to rectify; and what parent, who has a regard for the personal appearance of their offspring, would allow such a deformity to exist?

It is a truth, which most persons will admit, that before they have arrived at the years of maturity, disease has commenced in their second or permanent teeth; and it is for this reason they are induced to believe that the teeth are more easily destructible than the rest of the frame.

But this, we have endeavoured to prove, is a gross mistake; and that, on the contrary, the commencement of the diseases of the teeth arises from a want of that early and habitual cleanliness, which is the only means, as we have already pointed out, of preserving them.

This we have seen confirmed in the cases of the African and Indian, who, from constant care, preserve their teeth in perfect health.

Nothing, therefore, is required to render this part of the human structure less destructible than any other, but the same attention, which, from personal delicacy and fashion, is paid to cleanliness of the face and arrangement of the hair.

Nor should the teeth themselves be the only objects of care, the gums, or envelope which surrounds them, demand equal attention; and the character of a healthy state of the gums should be known to every mother.—These characters are—a vermillion, or red colour—a close texture—their firmly embracing the necks of the teeth—and the gum forming projections in every interstice, and receding in front, so as to surround each tooth in the form of a small arch.

Where the gums, on the contrary, are pale and rough, their texture loose and flabby, and no adhesion takes place to the necks of the teeth, which are partly laid bare, it is but too apparent, that want of cleanliness and neglect have long existed, and disease of the teeth must already have occurred, or will soon follow.

To guard against this state, the early management of the teeth becomes the duty of the mother. As soon as the child is weaned, the task of cleaning the teeth should commence; every night and morning the mouth of the child should be washed, or rinsed out with warm water, the tongue wiped clean with a cloth, the teeth gently brushed, and a waxed thread passed between them. This practice, so healthy and so conducive to comfort, will not only prevent all disease of the teeth and gums, but will also extend its beneficial effects in promoting the absorption of the fangs, and securing a regular arrangement to the future set.

Children, under such management, will be less subject to catarrhal affections, and sore throat, by the secretions of the mouth and throat proceeding in a regular and uninterrupted manner.

There is nothing which, in an after period, is so destructive to the health of teeth as the use of tooth-picks.—They are usually formed of hard materials, and their insinuation between the teeth detaches the gums from their adhesion; and by laying the necks of the teeth bare, hollows or cavities are formed which afford lodgements for the food, and proves a certain source of disease, and the commencement of rottenness. The natural character of the gum is thus destroyed, their arched appearance vanishes and becomes flat, and inflammation succeeds.

The use, therefore, of tooth-picks is to be strongly condemned, whatever their form, or the materials of which they are made, and are as improper for children as for adults. When a pin is substituted, it is even more injurious than any other substance; for, by the wounds it makes, if the teeth are neglected, and tartar is allowed to accumulate, a putrid matter is inoculated into the gum, which renders it unhealthy and diseased.

We have already recommended the tongues of children to be cleaned with a towel, the same should be continued at every period of life, instead of the common instruments, termed tongue-scrapers, from the frequent use of which, and their mechanical operation on this part, which naturally possesses great sensibility, much irritation is excited, and the organ becomes gradually injured, which lessens the powers of feeling, and thus destroys in a certain degree the sense of taste.

Nor is the use of tooth powders, though so much recommended, to be regarded in a more favourable light.—In the manner in which they are employed, by acting on the periosteum, they detach and destroy that part of it which immediately surrounds the necks of the teeth, and thus occasions the loss of this useful and ornamental part of the human structure.

The same objection applies even to the constant use of tooth brushes, unless properly adapted to the corresponding dimensions of the teeth. This is a subject of very great importance, and has never been sufficiently or scientifically reflected on by dentists, consequently the rules they have laid down for their use, have been highly erroneous, and often attended with injury, instead of answering any beneficial effect. It is clearly intended that a brush should only be applied to the surface of the teeth, in order to remove tartar or other accumulation, but if it is made of such a size as to proceed further, it rubs upon the periosteum or investing membrane of the teeth; and thus, if

daily used, cannot fail to destroy it, and the sooner if armed with tooth powder. This will shew the necessity for every person making a choice of a particular tooth brush for himself, selecting it according to the size of his teeth.

When children begin to shed their teeth, if irregularities form in their arrangement by over-lapping each other, a frequent inspection should take place: for all deformity can at that time easily be rectified, nor indeed is a cure of any deformity to be despaired of under the age of fifteen. In bringing irregular teeth into their proper situation, it should be always preferable to extract one tooth, in order to give room for the rest, instead of using the file, which can never allow of so complete and natural an arrangement.

The most frequent and dangerous disease of the teeth, we have stated to be the tartar; this affects them at a very early period: indeed it is often coëval with their first irruption, particularly when dentition is slow, for then the accumulated matter is apt to lodge on their edges, and unless carefully removed, disease is entailed for life.

In every family, it should be a rule to have the teeth of children frequently inspected by a dentist; but there is an unfortunate prejudice entertained by parents, that his operations tend to injure the teeth. On this account, the proper time is often neglected, which occasions deformity and disfiguration of the countenance for life. In many public seminaries this practice has been laudably followed. It will always prevent much future pain and regret; and children, when they attain the age of reason and reflection, will be more grateful for this attention, than for those accomplishments or indulgencies which have no connexion with health and comfort. The first traces of disease in the teeth are always unknown to the patient. Caries, in particular, is so insidious in its attack, that its existence often requires the most minute inspection of the dentist's eye to detect.

Whatever neglect may attach to the conduct of dentists in general, the one so commonly imputed to them, of dismissing their patients without the necessary instruction for preserving their teeth in the state of order to which they have been restored, is one, for which they certainly are not responsible. Why should they be blamed for withholding that information of which they were never in possession? It being a fact, the public decision can sufficiently establish, that an attention to the interstices of the teeth, so much the object of the present work to recommend, is an improvement in the professional practice, which has hitherto wholly escaped their attention.

Most dentists have an opinion that the teeth are sometimes too close to each other. But this can never be the case; for, in the closest set, there will be always room sufficient to pass the waxed thread in their interstices, provided there be no tartar to prevent it. Close teeth, on the contrary, have the advantage of affording a greater support to each other, and of causing a more general and firmer adhesion of the gum.

Among the popular prejudices which have been sanctioned by dentists, is that of bad teeth being hereditary or running in families. This is a most erroneous idea, and ought to be strongly combated, as under such a prepossession, the teeth will generally be neglected. Parents supposing that every means used for the prevention of disease will be fruitless.

I have no hesitation in affirming, that bad teeth are always accidental, and are to be considered either as the consequences of neglect, or improper management. This is confirmed by the appearance of the teeth in all animals but man; in the former we discover no diseased structure or other deformity, and therefore we are induced to ascribe it to fortuitous, not constitutional or hereditary causes.—In favouring this opinion, dentists seem little aware how materially they injure themselves, and the discredit that is reflected on their own profession.

The use of the tooth brush we formerly stated, as only injurious when not adapted to the size of the teeth, and acting too powerfully on the

gums. With attention to this regulation, brushing the teeth is a most healthy and useful operation, provided no tooth powder is used, otherwise the ingredients of which it is composed will be liable to insinuate between the gum and periosteum, producing irritation and all its consequences. The period of shedding the first teeth, is the critical time for insuring to them regularity of arrangement, and beauty of appearance. It is at this time, the care of the dentist becomes indispensable, that the primary teeth, whose fangs are not absorbed, may be removed in time to prevent the permanent teeth acquiring any deformity, as well as to secure symmetry to the countenance, and harmony to the features.

The above observations have been dwelt on thus earnestly, from a wish to impress upon parents their serious importance, to secure them from falling into improper hands, and to induce them to follow a system founded on reason and experience, eminently calculated for promoting the beauty and health of the human structure. The following is

THE BEST TOOTH POWDER—

Take of myrrh and bark half an ounce each;
Orris root, powdered, two ounces:
Rose pink, three ounces:
Essence of lemon, twelve drops.
Rub well in a mortar.

SUFFOCATION BY STRANGLING OR HANGING.

In hanging, the external veins of the neck are compressed by the cord, and the return of the blood from the head thereby impeded, from the moment that suspension takes place; but as the heart continues to act for a few seconds after the wind-pipe is closed, the blood which is sent to the head during this interval, is necessarily accumulated there. Hence it is, that in hanged persons the face is greatly swollen, and of a dark red or purple colour; the eyes are commonly suffused with blood, enlarged, and prominent.

From the great accumulation of blood in the vessels of the head, many have been of opinion, that hanging kills chiefly by inducing apoplexy; but it has, however, been clearly proved, that in hanging, as well as in drowning, the exclusion of the air from the lungs is the immediate cause of death. From which we may infer that the same measures recommended for drowned persons, are also necessary here; with this addition, that opening the jugular veins, or applying cupping glasses to the neck, will tend considerably to facilitate the restoration of life, by lessening the quantity of blood contained in the vessels of the head, and thereby taking off the pressure from the brain. Except in persons who are very full of blood, the quantity taken away need seldom exceed an ordinary tea-cupful, which will, in general, be sufficient to unload the vessels of the head, without weakening the powers of life.

MEDICAL VIRTUES OF TAMARINDS.

The nature of this fruit is very like that of prunes, but is more acid, and enters as a useful ingredient into the lenitive electuary. It is found of the highest use in sore throat, as a powerful cleanser; and put into boiling water until moderately cold, it is a salubrious drink to persons parched under the heat of fever, and in the lowest stage of putrid fever.

SUDDEN DEATH.

When sudden death happens in the street, the nearest door should be immediately opened for the reception of the body. In all cases, interment should be deferred till signs of putrefaction appear, but especially in those where no gradation of disease has preceded, as in cases of hysterics, apoplexy, external injuries, drowning, suffocation, &c. The effect of sound upon

animal life is astonishing. The beat of a drum may have a very beneficial effect upon persons in a state of suspended animation. At one time, a scream, extorted by grief, proved the means of resuscitating a person supposed to be dead.

MODE OF GIVING MEDICINE TO INFANTS.

It is best for persons of every age, and particularly for infants, that they swallow as little medicine as possible; but since it is sometimes indispensable, we have reflected on and practised all the different modes of administering it, which are in common use, and find that none is so convenient as to give it in the form of powder; to place the powder, mixed with a little fine sugar, on the tongue, and then give the child the breast.

DISLOCATIONS.

In almost all cases of dislocation of joints, it will be better, if possible, to await the arrival of a surgeon; but there is one species of luxation, very alarming to the by-standers, and particularly painful and inconvenient to the sufferer, which will admit of immediate relief, if any person, gifted with presence of mind and resolution, will attempt its reduction; this is dislocation of the lower jaw. Without attempting to describe the anatomy of the parts concerned, further than to state that either one or both of the balls, or condyles, at the extremity of the lower jaw, have slipped out of their sockets in the upper one, and consequently cause the mouth to be opened to its utmost extent, we lay down the following simple plan to restore them to their proper situation.

Let the two thumbs of the operator be wrapped round by a handkerchief, and then introduced into the mouth of the patient, and pushed as far as possible between the jaws; while the fingers are, at the same time, applied to each angle of the outside. Now, to attempt to move the bone from its situation, by bringing it, first a little forwards, and then pressing it forcibly downwards; when it will slip into its place without farther trouble. The patient should, for a time, avoid much speaking, or the chewing of hard substances, for fear of a recurrence of the accident.

The handkerchief is used to prevent injury to the operator's hands, which, otherwise, might be considerably hurt by the force with which the condyles return to their sockets.

FLATULENT OR WINDY CHOLIC.

Every particular which constitutes our food, whether solid or liquid, contains much air, but some of them more than others. If they do not digest soon enough, or but badly, which occasions a sensible escape of such air; if they are such as contain an extraordinary quantity; or if the intestines being straitened or compressed any where in the course of their extent, prevent that air from being equally diffused, (which must occasion a greater proportion of it in some places,) then the stomach and the intestines are distended by this wind; and this distension occasions these pains, which are called flatulent or windy.

This sort of cholic rarely appears alone and simple; but it is often complicated with, or added, as it were, to the other sorts, of which it is a consequence; and is more especially joined with the cholic from indigestions, whose symptoms it multiplies and heightens. It may be known, like that, by the causes which have preceded it, by its not being accompanied either with fever, heat, or thirst; the belly's being large and full, though without hardness, being unequal in its largeness, which prevails more in one part of it than in another, forming something like pockets of wind, sometimes in one part, sometimes in another; and by the patient's feeling some ease, merely from the rubbing of his belly, as it moves the wind about; which es-

caping either upwards or downwards, affords him a still greater relief.

When it is combined with any different species of the cholic, it requires no distinct treatment from that species; and is removed by the medicines which cure the principal disorder.

Sometimes, however, it exists alone, and then it depends on the windiness of the solid and liquid food of the person affected with it; such as new wine, beer, especially very new beer, certain fruits and garden-stuff. It may be cured by a clyster; by chafing the belly with hot cloths; by the use of drink moderately spiced; and especially camomile tea, to which a little cordial confection or Venice treacle may be added. When the pains are almost entirely subsided, and there is no fever, nor any unhealthful degree of heat; and if the patient be sensible of a weakness at stomach, he may take a little aromatic or spiced wine, or even a small cordial stomachic dram. It should be observed, these are not to be allowed in any other kind of cholic.

When any person is frequently subject to cholic-like pains, it is a proof the digestive faculty is impaired, the restoring of which should be carefully attended to; since, without this, the health of the patient must suffer considerably, and he must be very likely to contract many tedious and troublesome disorders.

CHOLIC PILLS.

Take of scammony, half a drachm;
Of jalap, a scruple;
Of Cayenne pepper, four grains;
Of oil of cloves, five drops.
Mix,—and make into twelve pills.—Three a dose.

CHOLIC DRAUGHT, FOR INSTANT RELIEF.

Take of tincture of rhubarb, two drachms;
Of tincture of Senna two drachms;
Of tincture of ginger, half a drachm.
Mix,—and take it at once.

CHOLICS FROM COLD.

When any person has been very cold, and especially in his feet, it is not uncommon for him to be attacked, within a few hours after, with violent cholic pains, in which heating and spirituous medicines are very pernicious: but which are easily cured by rubbing the legs well with hot cloths, and keeping them afterwards for a consirable time in warm water; advising the patient at the same time to drink freely of a light infusion of camomile or elder-flowers.

The cure will be effected the sooner, if the patient be put to bed and perspire a little, especially in the legs and feet.

A woman who had put her legs into a cool spring, after travelling in the height of summer, was very soon after attacked with a most violent cholic. She took different hot medicines; she became still worse; she was purged, but the distemper was still further aggravated. She died in two days after.

In such cases, if the pain be excessive, it may be necessary to bleed; to give a clyster of warm water; to keep the legs several hours over the steam of hot water; to drink plentifully of an infusion of the flowers of the lime-tree, with a little milk; and if the distemper be not subdued by these means, blisters should be applied to the legs or stomach.

It is necessary to be on our guard against permitting the use of heating and spirituous medicines in these cholics, as they may not only aggravate, but even render them mortal. In short, they should never be given, and when it is difficult to discover the real cause of the cholic, we advise country people to confine themselves to the three following remedies, which cannot be hurtful in any sort of cholic, and may remove as many as are not of a violent nature.

1. Let clysters be frequently repeated.

2. Let the patient drink warm water plentifully, or elder-flower tea.

3. Let the stomach be often fomented in warm water, which is the

most preferable fomentation of any; and give a dose of castor oil, or senna tea and manna, with a little salts.

People subject to cholic should

1. Avoid with the greatest care, the use of sharp, hot, violent medicines, vomits, strong purges, &c.

2. They should be thoroughly on their guard against all those, who promise them a very speedy cure, by the assistance of some specific remedy; and ought to look upon them as mountebanks, into whose hands it is highly dangerous to trust themselves.

3. They should be persuaded, or rather convinced, that they can entertain no reasonable hope of being cured, without an exact conformity to a proper and judicious regimen; and a long perseverance in a course of mild and safe remedies.

4. They should continually reflect with themselves, that there is little difficulty in doing them great mischief; and that their complaints are of that sort, which require the greatest knowledge and prudence in those persons, to whom the treatment and cure of them are confided.

SURE METHODS TO ATTAIN A LONG AND HEALTHFUL LIFE.

BY LEWIS CORNARO.

CHAPTER I.

OF A TEMPERATE AND REGULAR DIET.

It is universally agreed, that custom, with time, becomes a second nature, forcing men to use that, whether good or bad, to which they are habituated: nay, we see habit, in many instances, gain an ascendancy over reason. This is so undeniably true, that virtuous men, by conversing with the wicked, very often fall into the same vicious course of life. The contrary likewise, we see sometimes happen; viz. that as good morals easily change to bad, so bad morals change again to good. For instance, let a wicked man, who was once virtuous, keep company with a virtuous man, and he will again become virtuous; and this alteration can be attributed to nothing but the force of habit. Seeing many examples of this: and besides, considering that, in consequence of this great force of habit, two bad customs have got footing in Italy, within a few years, even within my own memory the first, FLATTERY and CEREMONIOUSNESS, which some have most preposterously embraced: the second, INTEMPERANCE; and that these vices, like so many cruel monsters, leagued, as indeed they are, against mankind, have gradually prevailed so far, as to rob civil life of its sincerity, the soul of its piety, and the body of its health; seeing and considering all this, I say, I have resolved to treat of the last of these vices, to prove that it is an abuse, in order to extirpate it if possible. As to the former, I am certain that some great genius or other will soon undertake the task of exposing its deformity, and effectually suppressing it. Therefore I firmly hope, that before I die, I shall see these abuses conquered and driven out of Italy; and this country, of course, restored to its former laudable and virtuous customs.

To come then to that abuse, of which I have proposed to speak, namely, INTEMPERANCE; I say that it is a great pity it should have prevailed so much, as entirely to banish sobriety. Though all are agreed, that intemperance is the offspring of gluttony, and sober living of abstemiousness, the former, nevertheless, is considered as a virtue and a mark of distinction, and the latter as dishonourable, and the badge of avarice. Such mistaken notions are entirely owing to the power of custom, established by our senses and irregular appetites; these have blinded and besotted men to such a degree, that, leaving the paths of virtue, they have followed those of vice, which are apt to lead them imperceptibly to an old age, burthened with strange and mortal infirmities, so as to render them quite decrepid before forty, contrary to the effects of sobriety, which before it was banished by this destructive intemperance, used to keep men

sound and hearty to the age of eighty and upwards. O, wretched and unhappy Italy! cannot you see, that intemperance murders every year more of your subjects, than you could lose by the most cruel plague, or by fire and sword, in many battles? Those truly shameful feasts, now so much in fashion, and so intolerably profuse, that no tables are large enough to hold the dishes, which renders it necessary to heap them one upon another! those feasts, I say, are so many battles; and how is it possible to live amongst such a multitude of jarring foods and disorders? Put a stop to this abuse, for God's sake, for there is not, I am certain, a vice more abominable than this in the eyes of the Divine Majesty. Drive away this plague, the worst you ever were afflicted with, this new kind of death; as you have banished that disease, which though it formerly used to make such havoc, now does little or no mischief, owing to the laudable practice of attending more to the goodness of the provisions brought to our markets. Consider, that there are means still left to banish intemperance, and such means too, that every man may have recourse to them without any external assistance. Nothing more is requisite for this purpose than to live up to the simplicity dictated by nature, which teaches us to be content with little, to pursue the medium of holy abstemiousness, and divine reason, and accustom ourselves to eat no more than is absolutely necessary to support life; considering, that what exceeds this is disease and death, and done merely to give the palate a satisfaction, which, though but momentary, brings on the body a long and lasting train of disagreeable sensations and diseases, and at length kills it along with the soul. How many friends of mine, men of the finest understanding and most amiable disposition, have I seen carried off by this plague, in the flower of their youth? who, were they now living, would be ornaments to the public, and whose company I should enjoy with as much pleasure, as I am now deprived of it with concern.

In order, therefore, to put a stop to so great an evil, I have resolved, by this short discourse, to demonstrate, that intemperance is an abuse which may be easily removed, and that the good old sober living may be substituted in its stead; and this I undertake the more readily, as many young men, of the best understanding, knowing that it is a vice, have requested of me, moved thereto by seeing their fathers drop off in the flower of their age, while I remain sound and hearty at the age of eighty-one. They express a desire to reach the same term, nature not forbidding us to wish for longevity; and old age being, in fact, that time of life in which prudence can best be exercised, and the fruits of all the other virtues enjoyed with the least opposition, the senses being then so subdued, that man gives himself up entirely to reason. They beseeched me, to let them know the method pursued by me to attain it; and then, finding them intent on so laudable a pursuit, I have resolved to treat of that method, in order to be of service, not only to them, but to all those who may be willing to peruse this discourse. I shall, therefore, give my reasons for renouncing intemperance, and betaking myself to a sober course of life; declare freely the method pursued by me for that purpose; and then set forth the effects of so good a habit upon me, whence it may be clearly gathered, how easy it is to remove the abuse of intemperance. I shall conclude, by showing how many conveniences and blessings are the consequences of a sober life.

I say then, that the heavy train of infirmities, which had not only invaded, but even made great inroads in my constitution, were my motives for renouncing intemperance, to which I had been greatly addicted; so that, in consequence of it, and the badness of my constitution, my stomach being exceedingly cold and moist, I had fallen into different

kinds of disorders, such as pains in my stomach, the cholic, and the gout; attended by, what is still worse, an almost continual slow fever, a stomach generally out of order, and a perpetual thirst. From these natural and acquired disorders, the best delivery I had to hope for was death, to put an end to the pains and miseries of life; a period as remote in the regular course of nature, as I had forwarded it by my irregular manner of living.

Finding myself, therefore, in such unhappy circumstances between my thirty-fifth and fortieth years, every thing that could be thought of, having been tried to no purpose to relieve me, the physicians gave me to understand, that there was but one method left to get the better of my complaints, provided I would resolve to use it, and patiently persevere in it. This was, a sober and regular life, which they told me would still be of the greatest power and efficacy, as powerful and efficacious as the other, which was contrary to it in every thing; I mean an intemperate and irregular one: and that of this power and efficacy I might convince myself, since, as by my disorders I was become infirm, though not reduced so low, that a regular life, the reverse in its effects of an irregular one, might not still entirely recover me; on the other hand, it in fact appears, such a regular life, whilst observed, preserves men of a bad constitution, and far gone in years, and that for a long space of time, just as a contrary course has the power to destroy those of the best constitution, in their prime; for this evident reason, that different modes of life should be attended by different effects; art following, even herein, the steps of nature, with equal power to correct natural vices and imperfections. This is obvious in husbandry and the like.—They added, that if I did not immediately have recourse to that medicine, I could receive no benefit from it in a few months, and that in a few more, I must resign myself to death.

These solid and ingenuous arguments made such an impression on me, that, mortified as I was besides, by the thoughts of dying in the prime of life, though at the same time perpetually tormented by various diseases, I immediately concluded, that the foregoing contrary effects could not but be produced by regularity and irregularity; and, therefore, full of hopes, resolved, in order to avoid at once both death and disease, to betake myself to a regular course. Having, upon this, inquired of them what rules I should follow, they told me, that I must not use any food, solid or liquid, but such as, being generally prescribed to sick persons, is, for that reason, called diet, and both very sparingly. These directions, to say the truth, they had before given me: but it was at a time of life when, impatient of such restraint, and finding myself satiated as it were with such food, I could not put up with it, and therefore ate freely of every thing I liked best; and likewise, feeling myself in a manner parched up by the heat of my disease, made no scruple of drinking, and in large quantities, the wines that best pleased my palate. This indeed, like all other patients, I kept a secret from my physicians. But, when I had once resolved to live soberly, and according to the dictates of right reason, in consequence of my discovering that it was no difficult matter, nay, that it was my duty as a man so to do, I entered with so much resolution upon this new course of life, that nothing since has been able to divert me from it. The consequence was, that in a few days I began to perceive that such a course agreed with me very well; and, by pursuing it, in less than a year, I found myself (some persons, perhaps, will not believe it) entirely freed from all my complaints.

Having thus recovered my health, I began seriously to consider the power of temperance, and say to myself, that if this virtue had efficacy enough to subdue such grievous disorders as mine, it must have still greater to preserve me in health, to help my bad constitution, and comfort my very weak stomach. I therefore applied

myself diligently to discover what kinds of food suited me best. But first I resolved to try whether those which pleased my palate, agreed or disagreed with my stomach, in order to judge for myself of the truth of that proverb, which I once held for true, and is universally held as such in the highest degree, inasmuch that epicures, who give a loose to their appetites, lay it down as a fundamental maxim.—The proverb is, that whatever pleases the palate, must agree with the stomach and nourish the body; or that what is palatable, must be equally wholesome and nourishing. The issue was, that I found it to be false; for, though rough and very cold wines, as likewise melons and other fruits, salad, fish, pork, tarts, garden-stuff, pastry, and the like, were very pleasing to my palate, they disagreed with my stomach. Having thus convinced myself, that the proverb in question was false, I disregarded it as such; and taught by experience I gave over the use of such meats and wines, and likewise of ice; chose wines suited to my stomach, drinking of it but the quantity I knew I could digest. I did the same with my meat, as well in regard to quantity as to quality, accustoming myself to contrive matters so as never to cloy my stomach with eating or drinking, but constantly rise from table with a disposition to eat and drink still more; in this I conformed to the proverb, which says, that a man, to consult with his health, must check his appetite. Having in this manner, and for these reasons, conquered intemperance and irregularity, I betook myself entirely to a temperate and regular life; this first effected in me that alteration which I have already mentioned, that is, in less than a year it rid me of all those disorders, which had taken so deep a root in me; nay, as I have already observed, made such a progress, as to be in a manner incurable. It had likewise this other good effect, that I no longer experienced those annual fits of sickness, with which I used to be afflicted, while I followed a different, that is, a sensual course of life; for then I used to be attacked every year with a strange kind of fever which sometimes brought me to death's door. From this plague, then, I also freed myself, and became exceeding healthy, as I have continued from that time forward to this very day; and for no other reason than that I never trespassed against regularity, which, by its infinite efficacy, has been the cause, that the meat I constantly ate, and the wine I constantly drank being such as agree with my constitution, and taken in proper quantities, imparted all their virtue to my body, and then left it without difficulty, and without engendering in it any bad humours.

In consequence, therefore, of my taking such methods, I have always enjoyed, and, God be praised, actually enjoy the best of healths. It is true, indeed, that besides the two foregoing most important rules relative to eating and drinking, which I have ever been very scrupulous to observe, that is, not to take of any thing but as much as my stomach can easily digest, and to use those things only, which agree with me, I have carefully avoided heat, cold, and extraordinary fatigue, interruption of my usual hours of rest, excessive venery, making any stay in bad air, and exposing myself to the wind and sun; for these, also, are too often the causes of great disorders.—But then, fortunately, there is no great difficulty in avoiding them; the love of life and health having more sway over men of understanding, than any satisfaction they could find in doing what must be extremely hurtful to their constitution. I likewise did all that lay in my power to avoid those evils, which we do not find it so easy to remove. These are, melancholy, hatred, and other violent passions, which appear to have the greatest influence over our bodies. However, I have not been able to guard so well against either one or the other kind of those disorders, as not to suffer myself now and then to be hurried away by many, not to say all of them; but I reaped one great benefit from my weakness, that of knowing by experience, that the passions have, in the main, no great influence over bodies

governed by the two foregoing rules of eating and drinking, and therefore can do them but very little harm; so that it may with great truth be affirmed, that whoever observes these two capital rules, is liable to very little inconvenience from any other excess.—This Galen, who was an eminent physician, observed before me. He affirms, that so long as he followed these two rules, relative to eating and drinking, he suffered but little from other disorders, so little, that they never gave him above a day's uneasiness. That what he says is true—I am a living witness, and so are many others who know me, and have seen how often I have been exposed to heats and colds, and such other disagreeable changes of weather; and have, likewise, seen me (owing to various misfortunes which have more than once befallen me) greatly disturbed in mind. For they cannot only say of me, that such disturbance of mind has done me very little harm, but they can aver of many others, who did not lead a sober and regular life, that it proved very prejudicial to them, amongst whom was a brother of my own, and others of my family, who trusting to the goodness of their constitution, did not follow my way of living. The consequence hereof was of the greatest disservice to them, the perturbations of the mind having thereby acquired an extraordinary influence over their bodies. Such, in a word, was their grief and dejection at seeing me involved in expensive law-suits, commenced against me by great and powerful men, that, fearing I should be cast, they were seized with that melancholy humour, with which intemperate bodies always abound, and these humours took such effect upon them, and increased to such a degree, as to carry them off before their time; whereas I suffered nothing on the occasion, as I had in me no superfluous humours of that kind. Nay, in order to keep up my spirits, I brought myself to think that God had raised up these suits against me, in order to make me more sensible of my strength of body and mind, and that I should get the better of them with honour and advantage, as it, in fact, came to pass; for, at last, I obtained a decree exceedingly favourable to my fortune and character, which, though it gave me the highest pleasure, had not the power to do me any harm in other respects. Thus it is plain, that neither melancholy, nor any other affection of the mind, can hurt bodies governed by temperance and regularity.

But I must go a step farther, and say, that those evils, which immediately affect such bodies, can do them but little mischief, or cause them but very little pain, and that this is true, I have myself experienced at the age of seventy. I happened, as is often the case, to be in a coach, which, going at a pretty smart rate, was overset, and in that condition drawn a considerable way by the horses before means could be found to stop them; whence I received so many shocks and bruises, that I was taken out with my head and all the rest of my body terribly battered, and a dislocated leg and arm. When I was brought home, the family immediately sent for the physicians, who, on their arrival, seeing me in so bad a plight, concluded that within three days I should die; nevertheless, they would try what good two things would do me: one was to bleed me, the other to purge me; and thereby prevent my humours altering, as they every moment expected, to such a degree, as to ferment greatly, and bring on a high fever. But I, on the contrary, who knew that the sober life I had led for many years past, had so well united, harmonized, and disposed my humours, as not to leave it in their power to ferment to such a degree, refused to be either bled or purged. I just caused my leg and arm to be set, and suffered myself to be rubbed with some oils, which they said were proper on the occasion. Thus, without using any other kind of remedy, I recovered, as I thought I should, without feeling the least alteration in myself, or any other bad effects from the accident, a thing which appeared no less than miraculous in the eyes of the physicians. Hence we are to infer, that whoever leads a sober and regular life, and commits no excess in his diet, can

suffer but very little from disorders of any other kind, or external accidents. On the contrary I conclude, especially from the late trial I have had, that excesses in eating or drinking are fatal; of this I convinced myself four years ago, when, by the advice of my physicians, the instigation of my friends, and the importunity of my own family, I consented to such an excess, which, as it will appear hereafter, was attended with far worse consequences than could naturally be expected.—This excess consisted in increasing the quantity of food I generally made use of, which increase alone brought on me a most cruel fit of sickness, and as it is a case so much in point to the subject in hand, and the knowledge of it may be useful to some of my readers, I shall take the trouble to relate it.

I say, then, that my dearest friends and relations, actuated by the warm and laudable affection and regard they had for me, seeing how little I ate, represented to me, in conjunction with my physicians, that the sustenance I took could not be sufficient to support one so far advanced in years, when it was become necessary not only to preserve nature, but to increase its vigour. That as this could not be done without food, it was absolutely incumbent upon me to eat a little more plentifully; I, on the other hand, produced my reasons for not complying with their desires. These were, that nature is content with little, and that with this little I had preserved myself so many years; and that to me the habit of it was become a second nature; besides, it was more agreeably to reason, that as I advanced in years, and lost my strength, I should rather lessen than increase the quantity of my food; further, that it was but natural to think that the powers of the stomach grew weaker from day to day, on which account I could see no reason to make such an addition. To corroborate my arguments I alleged those two natural and very true proverbs; one, that he who has a mind to eat a great deal must eat but little, which is said for no other reason than this, that eating little makes a man live very long, and living very long he must eat a great deal. The other proverb was, that what we leave after making a hearty meal does us more good than what we have eaten; but neither these proverbs, nor any other arguments I could think of, were able to prevent their teazing me more than ever. Wherefore, not to appear obstinate, or affecting to know more than the physicians themselves, but, above all, to please my family, who very earnestly desired it, from a persuasion that such an addition to my usual allowance must preserve the tone of my stomach, I consented to increase the quantity of food, but by two ounces only; so that, as before, what with bread, meat, the yolk of an egg, and soup, I ate as much as weighed in all twelve ounces, neither more nor less. I now increased it to fourteen, and as before I drank but fourteen ounces of wine—I now increased it to sixteen. This increase and irregularity, had, in eight days time, such an effect upon me that from being cheerful and brisk I began to be peevish and melancholy, so that nothing could please me, and was constantly of so strange a temper that I neither knew what to say to others, nor what to do with myself.—On the twelth day I was attacked with a most violent pain in my side, which held me twenty-two hours, and was succeeded by a terrible fever, which continued thirty-five days, and as many nights, without giving me a moment's respite; though, to say the truth, it began to abate on the sixteenth; but notwithstanding such abatement I could not, during the whole time, sleep half a quarter of an hour together, insomuch that every one looked upon me as a dead man; but, God be praised! I recovered, merely by my former regular course of life, though then in my seventy-eighth year, and in the coldest season of a very cold year, and reduced to a mere skeleton; and I am positive that it was the great regularity I had observed for so many years, and that only, which rescued me from the jaws of death.—In all that time I never knew what sickness was, unless I may call by that name some slight indispositions of the continuance of a day or two; the

regular life I had led, as I have already taken notice, for so many years, not having permitted any superfluous or bad humours to breed in me; or, if they did, to prevent them acquiring such strength and malignity, as they generally acquire in the superannuated bodies of those who live without rule; and as there was not any old malignity in my humours (which is the thing that kills people) but only that which my new irregularity had occasioned, this fit of sickness, though exceeding violent, had not strength enough to destroy me; this it was, and nothing else, that saved my life; whence may be gathered how great is the power and efficacy of regularity; and how great, likewise, is that of irregularity, which in a few days could bring on me so terrible a fit of sickness, just as regularity had preserved me in health for so many years.

And it appears to me no weak argument, that since the world, consisting of the four elements, is upheld by order; and our life, as to the body, is no other than an harmonious combination of the same four elements, so it should be preserved and maintained by the very same order; and on the other hand, worn out by sickness or destroyed by death, which produces the contrary effects. By order, the arts are more easily learned; by order, armies are rendered victorious; by order, in a word, families, cities, and even states are maintained. Hence I concluded, that orderly living is no other than a most certain cause and foundation of health and long life; nay, I cannot help saying, that it is the only and true medicine; and whoever weighs the matter well, must also conclude, that this is really the case. Hence it is, that when a physician comes to visit a patient, this is the first thing he prescribes, enjoining him to live regularly. In like manner, when a physician takes leave of a patient, on his being recovered, he advises him, as he tenders his health, to lead a regular life. And it is not to be doubted, that were a patient so recovered to live in this manner, he would never be sick again, as it removes every cause of illness; and so for the future, would never want either physician or physic. Nay, by attending duly to what I have said, he would become his own physician, and indeed, the best he could have; since, in fact, no man can be a perfect physician to any one but himself. The reason of which is, that any man may, by repeated trials, acquire a perfect knowledge of his own constitution, and the most hidden qualities of his body, and what wine and food agree with his stomach. Now it is so far from being an easy matter to know these things, perfectly of another, that we cannot, without much trouble, discover them in ourselves, since a great deal of time and repeated trials are requisite for that purpose.

These trials are (if I may so express it,) more than necessary, as there is a greater variety in the natures and stomachs of different men, than in their persons. Who could believe, that old wine,—wine that had passed its first year, should disagree with my stomach, and new wine agree with it; and that pepper, which is looked upon as a warm spice, should not have a warm effect upon me, insomuch, that I find myself more warmed and comforted by cinnamon? Where is the physician that could have informed me of these two latent qualities, since I myself, even by a long course observation, could scarce discover them? From all these reasons it follows, that it is impossible to be a perfect physician to another. Since, therefore, a man cannot have a better physician than himself, nor any physic better than a regular life, a regular life he ought to embrace.

I do not, however, mean that for the knowledge and cure of such disorders as often befall those who do not live regularly, there is no occasion for a physician, and that his assistance ought to be slighted; for if we are apt to receive such great comfort from friends, who come to visit us in our illness, though they do not more than testify their concern for us, and bid us be of good cheer; how much

more regard ought we to have for the physician, who is a friend that comes to see us in order to relieve us, and promises us a cure? But for the bare purpose of keeping ourselves in good health, I am of opinion, that we should consider as a physician this regular life, which, as we have seen, is our natural and proper physic, since it preserves men, even those of a bad constitution, in health; makes them live sound and hearty to the age of one hundred and upwards; and prevents them dying of sickness, or through a corruption of their humours, but merely by a resolution of their radical moisture, when quite exhausted; all which effects several wise men have attributed to portable gold, and the elixir, sought after by many but discovered by few. However, to confess the truth, men, for the most part, are very sensual and intemperate, and love to satisfy their appetites, and to commit every excess; therefore, seeing that they cannot avoid being greatly injured by such excess, as often as they are guilty of it, they, by way of apologizing for their conduct, say, that it is better to live ten years less and enjoy themselves; not considering of what importance are ten years more of life, especially a healthy life, and at a maturer age; when men become sensible of their progress in knowledge and virtue, which cannot attain to any degree of perfection before this period of life.

Not to speak at present of many other advantages, I shall barely mention, that in regard to letters and the sciences; far the greatest number of the best and most celebrated books extant, were written during that period of life, and those ten years, which some make it their business to undervalue, in order to give a loose to their appetites. Be that as it will, I would not act like them. I rather coveted to live these ten years, and had I not done so, I should never have finished these tracts, which I have composed in consequence of my having been sound and hearty during that period; and which I have the pleasure to think will be of service to others. These sensualists add, that a regular life is such as no man can lead. To this I answer, Galen, who was so great a physician, led such a life, and chose it as the best physic. The same did Plato, Cicero, Isocrates, and so many other great men, of former times; whom, not to tire the reader, I shall forbear naming; and, in our own days, Pope Paul Farnese led it, and Cardinal Bembo; and it was for that reason they lived so long: likewise our two doges, Lando and Donato; besides many others of meaner condition, and those who lived, not only in cities, but also in different parts of the country, who all found great benefit by conforming to this regularity. Therefore, since many have led this life, and many actually lead it, it is not such a life but that every one may conform to it; and the more so, no great difficulty attends it; nothing, indeed, being requisite but to begin in good earnest, as the above mentioned Cicero affirms, and all those who now live in this manner. Plato, you will say, though he himself lived very regularly, affirms, notwithstanding, that in republics, men cannot do so, being often obliged to expose themselves to heat, cold, and several other kinds of hardship, and other things, which are all so many disorders, and incompatible with a regular life. I answer, that, as I have already observed, these are not disorders attended with any bad consequences, or which either affect health or life, when the man who undergoes them observes the rules of sobriety, and commits no excess in the two points concerning diet, which a republican may very well avoid; nay, it is requisite he should avoid; because, by so doing, he may be sure either to escape those disorders, which otherwise it would be no easy matter for him to escape, while exposed to hardships; or in case he could not escape them, he may more easily and speedily prevent their bad effects.

Here, it may be objected, and some actually do object, that he who leads a regular life, having constantly, when

well, made use of food fit for the sick, and in small quantities, has no recourse left in case of illness. To this I might, in the first place answer, that nature, desirous to preserve man in good health as long as possible, informs him herself, how he is to act in time of illness; for she immediately deprives him, when sick, of his appetite, in order that he may eat but little; because nature, as I have already said, is content with little; wherefore it is requisite, that a man when sick, whether he has led a regular or irregular life, should use no meats but such as are suited to his disorder; and of these even in a much smaller quantity than he was wont to do when in health. For were he to eat as much as he then used to do, he would die by it; and this the rather, as it would only be adding to the burden, with which nature was already oppressed, by giving her a greater quantity of food, than she can in these circumstances support; which, I imagine, should sufficiently satisfy any sick person. But independent of all this, I might answer some others, and still better, that whoever leads a regular life cannot be sick; or at least but seldom, and for a short time; because, by living regularly, he extirpates every seed of sickness; and thus, by removing the cause prevents the effect; so that he who pursues a regular course of life need not be apprehensive of illness; as he need not be afraid of the effect, who has guarded against the cause.

Since, therefore, it appears, that a regular life is so profitable and virtuous, so lovely and so holy, it ought to be universally followed and embraced; and the more so, as it does not clash with the means or duties of any station, but is rather easy to all; because, to lead it, a man need not tie himself down to eat so little as I do, or not to eat fruit, fish, and other things of that kind, from which I abstain, who eat little, and but just enough for my puny and weak stomach; and fruit, fish, and other things of that kind, disagree with me, which is my reason for not touching them. Those, however, with whom such things agree, may, and ought to eat them; since they are not by any means forbid the use of such sustenance; but, then, both they and all others, are forbid to eat a greater quantity of any kind of food, even of that which agrees with them, than their stomachs can easily digest; the same is to be understood of drink. Hence it is, that those, with whom nothing disagrees, are not bound to observe any rule but that relating to quantity, and not to the quality of their food; a rule which they may, without the least difficulty in the world comply with.

Let nobody tell me, that there are numbers, who, though they live most irregularly, attain in health and spirits, those remote periods of life, attained by the most sober; for this argument being grounded on a case full of uncertainty and hazard, and which, besides, so seldom occurs, as to look more like a miracle than the work of nature, men should not suffer themselves to be thereby persuaded to live irregularly, nature having been too liberal to those, who did so without suffering by it; a favour which very few have any right to expect. Whoever, trusting to his youth, or the strength of his constitution, or to the goodness of his stomach, slights these observations, must expect to suffer greatly by so doing, and live in constant danger of disease and death. I, therefore, affirm, that an old man, even of a bad constitution, who leads a regular and sober life, is surer of a long one, than a young man of the best constitution, who leads a disorderly life. It is not to be doubted, however, that a man, blessed with a good constitution, may, by living temperately, expect to live longer than one, whose constitution is not so good; and that God and nature can dispose matters so, that a man shall bring into the world with him so sound a constitution as to live long and healthy, without observing such strict rules; and then die in a very advanced age through a mere resolution of his elementary parts; as was the case in Venice, of the procurator Thomas Contarini; and in Padua, of the cavilier Antonio Capo di Vacca. But it

is not one man in a hundred thousand, that so much can be said of. If others have a mind to live long and healthy, and die without sickness of body or mind, but by mere dissolution, they must submit to live regularly, since they cannot otherwise expect to enjoy the fruits of such a life, which are almost infinite in number, and each of them in particular, of infinite value. For as such regularity keeps the humours of the body clean and temperate; it suffers no vapours to ascend from the stomach to the head; hence the brain of him, who lives in that manner, enjoys such a constant serenity, that he is always perfectly master of himself. He therefore, easily soars above the low and grovelling concerns of this life, to the exalted and beautiful contemplation of heavenly things, to his exceeding great comfort and satisfaction; because he, by this means, comes to consider, know, and understand that, which otherwise he would never have considered, known, or understood; that is, how great is the power, wisdom, and goodness of the Deity. He then descends to nature, and acknowledges her for the daughter of God; and sees, and even feels with his hands, that, which in any other age or perception less clear, he could never have seen or felt. He then truly discerns the brutality of that excess into which they fall, who know not how to subdue their passions, and those three importunate lusts, which one would imagine, came altogether into the world with us, in order to keep us in perpetual anxiety and disturbance. These are the lust of the flesh, the lust of honours, and the lust of riches, which are apt to increase with years in such old persons as do not lead a regular life; because, in their passage through the stage of manhood, they did not, as they ought, renounce sensuality and their passions; and take up with sobriety and reason; virtues which men of a regular life did not neglect when they passed through the above-mentioned stage. For knowing such passions and such lusts to be inconsistent with reason, to which they are become entirely addicted, they at once broke loose from all vicious restraint; and instead of being slaves any longer to their inordinate appetites, they applied themselves to virtue and good works; and by these means, they altered their conduct, and became men of good and sober lives. When, therefore, in process of time, they see themselves reduced by a long series of years to their dissolution, conscious that through the singular mercy of God, they had so sincerely relinquished the paths of vice, as never afterwards to enter them; and moreover, hoping, through the merits of our Saviour Jesus Christ, to die in his favour, they do not suffer themselves to be cast down at the thoughts of death, knowing that they must die.

This is particularly the case, when loaded with honour and sated with life, they see themselves arrived at that age, which not one in many thousands of those who live otherwise ever attains. They have still the greater reason not to be dejected at the thoughts of death, as it does not attack them violently by surprise, with a bitter and painful turn of their humours, with feverish sensations and sharp pains, but steals upon them insensibly, and with the greatest ease and gentleness: such an end, proceeding entirely from an exhaustion of the radical moisture, which decays by degrees like the oil of a lamp; so that they pass gently, and without any sickness, from this terrene and mortal, to a celestial and eternal life.

O, holy and truly happy regularity! How holy and happy should men, in fact, deem thee, since the opposite habit is so wretched, as evidently appears to those who consider the opposite effects of both! so that men should know thee by thy voice alone, and thy lovely name; for what a glorious name, what a noble thing is an orderly and sober life; as, on the contrary, the bare mention of disorder and intemperance is offensive to our ears. Nay, there is the same difference between the mentioning of these two things, as between the uttering of the words *angel* and *devil!*

Thus, I have assigned my reasons for abandoning intemperance, and be-

taking myself entirely to a sober life; with the method I pursued in doing so, and the consequences resulting from it; and finally, the advantages and blessings, which a sober life confers upon those who embrace it.—Some sensual inconsiderate persons affirm, that a long life is no blessing; and that the state of a man, who has passed his seventy-fifth year, cannot really be called life, but death; but this is a great mistake, as I shall fully prove; and it is my sincere wish that all men would endeavour to attain my age, in order that they also may enjoy that period of life, which of all others, is the most desirable.

I will therefore give an account of my recreations, and the relish which I find at this stage of life, in order to convince the public, which may likewise be done by all those who know me, that the state I have now attained is by no means death, but real life; such a life as by many is deemed happy, since it abounds with all the felicity that can be enjoyed in this world. And this testimony they will give, in the first place, because they see, and not without the greatest amazement, the good state of health and spirits I enjoy; how I mount my horse without any assistance or advantage of situation; and how I not only ascend a single flight of stairs, but climb up a hill from bottom to top afoot, and with the greatest ease and unconcern; then, how gay, pleasant, and good humoured I am; how free from every perturbation of mind, and every disagreeable thought; in lieu of which, joy and peace have so firmly fixed their residence in my bosom, as never to depart from it.—Moreover, they know in what manner I pass my time, so as not to find life a burden; seeing I can contrive to spend every hour of it with the greatest delight and pleasure, having frequent opportunities of conversing with many honourable gentlemen; men valuable for their good sense and manners, their acquaintance with letters, and every other good quality. Then, when I cannot enjoy their conversation, I betake myself to the reading of some good book. When I have read as much as I like, I write; endeavouring in this as in every thing else, to be of service to others, to the utmost of my power.

These things I do with the greatest ease to myself at their proper seasons, in a house of my own; which being situated in the most beautiful quarter of this noble and learned city of Padua, is in itself really convenient and handsome, such, in a word, as it is no longer the fashion to build; for in one part of it, I can shelter myself from extreme heat; and in the other from extreme cold, having contrived the apartments according to the rules of architecture, which teach us what is to be observed in practice. Besides this house, I have my several gardens, supplied with purling streams, in which I always find something to do that amuses me.

I have another way of diverting myself, which is going every April and May, and likewise every September and October, for some days, to enjoy an eminence belonging to me in those Euganean hills, and in the most beautiful part of them, adorned with fountains and gardens; and above all, a convenient and handsome lodge; in which place I likewise now and then make one in some hunting party suitable to my taste and age.

Then I enjoy for as many days, my villa in the plain, which is laid out in regular streets, all terminating in a large square, in the middle of which stands the church, suited to the condition of the place. This villa is divided by a wide and rapid branch of the river Brenta, on both sides of which there is a considerable extent of country, consisting entirely of fertile and well cultivated fields.

Besides this district is now, God be praised, exceedingly well inhabited, which it was not at first, but rather the reverse; for it was marshy, and the air so unwholesome, as to make it a residence fitter for adders than men. But on my draining off the waters the air mended, and people resorted to it so fast, and increased to such a degree, that it soon acquired the perfection in which it now appears; hence I may say with truth,

that I have given in this place, an altar and a temple to God, with souls to adore him. These are things which afford me infinite pleasure, comfort, and satisfaction, as often as I go to see and enjoy them.

At the same seasons every year, I revisit some of the neighbouring cities, and enjoy such of my friends as live there, taking the greatest pleasure in their company and conversation; and by their means I also enjoy the conversation of other men of parts, who live in the same places; such as architects, painters, sculptors, musicians, and husbandmen, with whom this age most certainly abounds. I visit their new works; I revisit their former ones, and I always learn something which gives me satisfaction. I see the palaces, gardens, antiquities, and with these the squares and other public places, the churches, the fortifications; leaving nothing unobserved from whence I may reap either entertainment or instruction. But what delights me most is, in my journeys backwards and forwards, to contemplate the situation and other beauties of the places I pass through; some in the plains, others on hills, adjoining to rivers or fountains; with a great many fine houses and gardens.

Nor are my recreations rendered less agreeable and entertaining by my not seeing well, or not hearing readily every thing that is said to me; or by any other of my senses not being perfect; for they are all, thank God! in the highest perfection; particularly my palate, which now relishes better the simple fare I meet, wherever I happen to be, than it formerly did the most delicate dishes, when I led an irregular life. Nor does the change of beds give me any uneasiness, so that I sleep every where soundly and quietly, without experiencing the least disturbance; and all my dreams are pleasant and delightful.

It is likewise with the greatest pleasure and satisfaction I behold the success of an undertaking so important to this state: I mean that of draining and improving so many uncultivated pieces of ground, an undertaking begun within my memory, and which I thought I should never live to see completed; knowing how slow republics are apt to proceed in enterprises of great importance. Nevertheless, I have lived to see it, and was even in person in these marshy places, along with those appointed to superintend the draining of them, for two months together, during the great heats of summer, without ever finding myself worse for the fatigues or inconveniences I suffered; of so much efficacy is that orderly life, which I every where constantly lead.

What is more, I am in the greatest hopes, or rather sure, to see the beginning and completion of another undertaking of no less importance, which is that of preserving our estuary or port, that last and wonderful bulwark of my dear country, the preservation of which (it is not to flatter my vanity I say it, but merely to do justice to truth) has been more than once recommended by me to this republic, by word of mouth and in writings, which cost me many nights' study. And to this dear country of mine, as I am bound by the laws of nature to do every thing from which it may reap any benefit, so I most ardently wish perpetual duration, and a long succession of every kind of prosperity.

Such are my genuine and no trifling satisfactions; such are the recreations and diversions of my old age, which is so much the more to be valued than the old age, or even the youth of other men, as being freed, by God's grace, from the perturbations of the mind, and the infirmities of the body, it no longer experiences any of those contrary emotions which rack such a number of young men, and as many old ones, destitute of strength and health and every other blessing.

And if it is lawful to compare little matters to affairs of importance, I will further venture to say, that such are the effects of this sober life, that at my present age of eighty-three, I have been able to write a very entertaining comedy, abounding with innocent mirth and pleasant jests.—This kind of poem is generally the

child and offspring of youth, as tragedy is that of old age; the former being by its facetious and sprightly turn, suited to the bloom of life; and the latter by its gravity, adapted to riper years.

Now if that good old man, a Grecian by birth and a poet, who was so much extolled for having written a tragedy at the age of seventy-three, and on that account alone, reputed of sound memory and understanding, though tragedy be a grave and melancholy poem; why should I be deemed less happy and of sound memory and understanding, who have, at an age ten years more advanced than his, written a comedy, which, as every one knows, is a merry and pleasant kind of composition? And indeed, if I may be considered an impartial judge in my own cause, I cannot help thinking, that I am now of sounder memory and understanding, and heartier than he was when ten years younger.

That no comfort might be wanting to the fulness of my years whereby my great age may be rendered less irksome, or rather the number of my enjoyments increased, I have the additional comfort of seeing a kind of immortality in a succession of descendants: for as often as I return home, I find before me, not one or two, but eleven grandchildren, the oldest of them eighteen, and the youngest two years old; all the offspring of one father and one mother; all blessed with the best health; and by what as yet appears, fond of learning, and of good parts and morals. Some of the youngest I always play with; and indeed, children from three to five are only fit for play: those above that age I make companions of; and as nature has bestowed very fine voices upon them, I amuse myself with seeing and hearing them sing, and play on various instruments.—Nay, I sing myself, as I have a better voice now, and a clearer and louder pipe, than at any other period of my life. Such are the recreations of my old age.

Whence it appears, that the life I lead is cheerful and not gloomy, as some persons pretend who know no better, to whom, in order that it may appear what value I set on every other kind of life, I must declare, that I would not exchange my manner of living or my grey hairs with any of those young men, even of the best constitution, who give way to their appetites; knowing as I do, that such are daily, nay, hourly subject, as I have already observed, to a thousand kinds of ailments and death. This is, in fact, so obvious as to require no proof. Nay, I remember perfectly well how I used to behave at that time of life. I know how inconsiderately that age is apt to act, and how fool-hardy young men, hurried on by the heat of their blood, are wont to be; how apt they are to presume too much on their strength in all their actions, and how sanguine they are in their expectations, as well on account of the little experience they have had for the time past, as by reason of the power they enjoy in their own imaginations over the time to come. Hence they expose themselves rashly to every kind of danger, and banishing reason, and bowing their necks to the yoke of concupiscence, endeavour to gratify all their appetites, not minding, fools as they are! that they thereby hasten, as I have several times observed, the approach of what they would most willingly avoid,—sickness and death.

Of these two evils, one is troublesome and painful, the other, above all things, dreadful and insupportable; insupportable to every man who has given himself up to his sensual appetites, and young men in particular, to whom it appears a hardship to die an early death; dreadful to those who reflect on the errors to which this mortal life is subject, and on the vengeance which the justice of God is wont to take on sinners, by condemning them to everlasting punishment. Whereas I, in my old age, praise to the Almighty, am exempt from both these torments;—from the one, because I cannot fall sick, having removed all the causes of illness by my divine medicine;—from the

other, that of death, because from so many years' experience, I have learned to obey reason; whence I not only think it a great piece of folly to fear that which cannot be avoided, but likewise firmly expect some consolation from the grace of Jesus Christ, when I shall arrive at that period.

Besides, though I am sensible that I must like others reach that term, it is yet at so great a distance that I cannot discern it; because I know I shall not die except by mere dissolution, having already by my regular course of life, shut up all the other avenues of death, and thereby prevented the humours of my body making any other war upon me than that which I must expect from the elements employed in the composition of this mortal frame. I am not so simple as not to know, that as I was born, so I must die. But that is a desirable death which nature brings on us by way of dissolution. For nature, having herself formed the connection between our body and soul, knows best in what manner it may most easily be dissolved, and grants us a longer day to do it than we could expect from a violent sickness. This is the death which, without acting the poet, I may call, not death, but life. Nor can it be otherwise. Such a death does not overtake one till after a very long course of years, and in consequence of an extreme weakness; it being only by slow degrees that men grow too feeble to walk, and scarce to reason, becoming both blind, deaf, decrepit, and full of every other kind of infirmity.—Now I, by God's blessing, may reckon upon being at a very great distance from such a period. Nay, I have reason to think that my soul, having so agreeable a dwelling in my body as not to meet with any thing in it but peace, love, and harmony, not only between its humours, but between my reason and the senses, is exceedingly content and well pleased with her present situation; and of course, that a great length of time and many years must be requisite to dislodge her. Whence it must be concluded for certain that I have still a series of years to live in health and spirits and enjoy this beautiful world, which is indeed beautiful to those who know how to make it so, as I have done, and likewise expect to be able to do, with God's assistance, by the next; and all by the means of virtue and that divine regularity of life, which I have adopted, concluding an alliance with my reason, and declaring war against my sensual appetites; a thing which every man may do, who desires to live as he ought.

Now, if this sober life is so happy; if its name is so beautiful and delightful: if the possession of the blessings which attend it are so stable and permanent, all I have still left to do is to beseech, since I cannot compass my desires by the powers of oratory, every man of a liberal disposition, and sound understanding, to embrace with open arms this most valuable treasure of a long and healthy life; a treasure which, as it exceeds all the other riches and blessings of this world, so it deserves above all things to be cherished, sought after, and carefully observed. This is that divine sobriety, agreeable to God, the friend of nature, the daughter of reason, the sister of all the virtues, the companion of temperate living, modest, courteous, content with little, regular, and perfect mistress of all her operations. From her, as from their proper root, spring life, health, cheerfulness, industry, learning, and all those actions and employments worthy of noble and generous minds. The laws of God and man are all in her favour. Repletion, excess, intemperance, superfluous humours, diseases, fevers, pains, and the dangers of death, vanish in her presence, like clouds before the sun. Her comeliness ravishes every well-disposed mind. Her influence is so sure, as to promise to all a very long and agreeable existence; the facility of acquiring her is such as ought to induce every one to look for her and share in her victories. And lastly, she promises to be a mild and agreeable guardian of life; as well of the rich as of the poor; of the male as of the female sex;

the old as of the young: being that which teaches the rich, modesty; the poor, frugality; women, chastity; the old, how to ward off the attacks of death; and bestows on youth firmer and securer hopes of life. Sobriety renders the senses clear, the body light, the understanding lively, the soul brisk, the memory tenacious, our movements free, and all our actions regular and easy. By means of sobriety the soul, delivered as it were of her earthly burthen, experiences a great deal of her natural liberty: the spirits circulate gently through the arteries; the blood runs freely through the veins; the heat of the body, kept mild and temperate, has mild and temperate effects: and lastly, our faculties being under a perfect regulation, preserve a pleasing and agreeable harmony.

O, most innocent and holy sobriety, the sole refreshment of nature, the nursing mother of human life, the true physic of soul as well as of body, how ought men to praise thee, and thank thee for thy princely gifts!—Since thou bestowest on them the means of preserving this blessing, life, I mean, and health, than which it has not pleased God we should enjoy a greater on this side of the grave; life and existence being a thing so naturally coveted and willingly preserved by every living creature. But as I do not intend to write a panegyric on this rare and excellent virtue, I shall put an end to this discourse, lest I should be guilty of intemperance on so pleasing a subject: not that numberless things might not be said of it besides those which I have already mentioned; but in order to set forth the rest of its praises at a more convenient opportunity.

OF CHOLICS.

CHOLICS may and do result from very many causes; and the greater number of cholics are chronic or tedious complaints, being more common among the inactive inhabitants of cities, and workmen in sedentary trades, than among country people. We have spoken of the windy cholic, which is not in general a dangerous disease, but we now come to the most formidable species, which is

THE INFLAMMATORY CHOLIC.

This arises from an inflammation of the stomach or of the intestines. It begins most commonly without any shivering, by a vehement pain in the bowels, which gradually becomes still more so. The pulse grows quick and hard; a burning pain is felt through the whole region of the stomach; sometimes there is a watery diarrhœa or purging; at other times the stomach is rather costive, which is attended with vomiting, a very embarrassing and dangerous symptom; the countenance becomes highly flushed; the belly tense and hard; neither can it be touched scarcely, without a cruel augmentation of the patient's pain, who is also afflicted with extreme restlessness; his thrist is very great, being unquenchable by drink; the pain often extends to the loins, where it proves very sharp and severe; little urine is made and that very red, and with a kind of burning heat. The tormented patient has not a moment's rest, and now and then raves a little. If the disease is not removed or moderated before the pains rise to their utmost height and violence, the patient begins at length to complain less; the pulse becomes less strong and less hard than before, but quicker; his face first abates of its flush and redness, and soon after looks pale; the parts under the eyes become livid; the patient sinks into a low stupid kind of delirium or raving; his strength entirely deserts him; the face, hands, feet, and the whole body, the belly only excepted, become cold; the surface of the belly appears bluish; extreme weakness follows, and the patient dies. There frequently occurs, just a moment before he expires, an abundant discharge of excessively fœtid matter by stool; and during this evacuation he dies, with his intestines quite gangrened or mortified.

When the distemper attacks the stomach, the symptoms are the very same, but the pain is felt higher up,

at the pit of the stomach. Almost every thing that is swallowed is cast up again; the anguish of the tortured patient is terrible, and the raving comes on very speedily. This disease proves mortal in a few hours.

The only method of succeeding in the cure of it is as follows:

1. Take a large quantity of blood from the arm; this almost immediately diminishes the violence of the pains, and allays the vomiting; besides its contributing to the greater success of the other remedies. It is often necessary to repeat this bleeding within the space of two hours; also give a little castor oil, by which medicine the bowels must be kept open during the disease.

2. Whether the patient has a looseness or not, a clyster of a decoction of marsh-mallows, or of barley water and oil, should be given every two hours.

3. The patient should drink very plentifully of barley water or broths, which should be warm.

4. Flannels dipped in hot or very warm water, should be continually applied over the belly, shifting them every hour or rather oftener; for in this case they very quickly grow dry.

5. If the disease, notwithstanding all this, continues very obstinate and violent, the patient should be put into a warm water bath, the extraordinary success of which is remarkable.

When the distemper is over, that is to say, when the pains have terminated, and the fever has ceased, so that the patient recovers a little strength, and gets a little sleep, it will be proper to give him a purge, but a very gentle one. Two ounces of manna, and a quarter of an ounce of salts dissolved in a glass of clear whey are generally sufficient, at this period, to purge the most robust and hardy bodies. Manna alone may suffice for more delicate constitutions: as all acrid or sharp purges would be highly dangerous, with regard to the great sensibility and tender condition of the stomach and of the intestines, in this disease.

This cholic is sometimes the effect of a general inflammation of the blood; and is produced, like other inflammatory diseases, by extraordinary labour, very great heat, heating meats or drinks, &c. It is often the consequence of other cholics which have been injudiciously treated, and which otherwise would not have degenerated into inflammatory ones; as we have many times seen these cholics brought on after the use of heating medicines.

Ten days after a woman was recovered out of a severe cholic, the pains returned violently in the night—she, supposing them to arise only from wind, hoped to appease them by drinking cordials, which, far from producing any such effect, rendered them more outrageous. They were soon heightened to a surprising degree, which might reasonably be expected. Being sent for very early in the morning, we found her pulse hard, quick, short; her belly was tense and hard; she complained greatly of her loins; her urine was almost entirely stopped; she passed but a few drops, which felt as if it were scolding hot, and these with excessive pain. She went very frequently to the close-stool, with scarcely any effect; her anguish, heat, thirst, and the dryness of her tongue were even terrifying; and her wretched state, the effect of the strong hot liquor she had taken, made us very apprehensive for her. One bleeding, to the quantity of fourteen ounces, somewhat abated all the pains; she took several clysters, and drank off a few pots of whey in a few hours. By these means the disease was a little mitigated; by continuing the same drink and the clysters, the looseness abated; the pain of the loins went off, and she passed a considerable quantity of urine, which proved turbid, and then let fall a sediment. The patient recovered.—Nevertheless, we verily believe, if the bleeding had been delayed two hours longer, these cordials would have been the death of her.—During the progress of this violent disease, no food is to be allowed; and we should never be inattentive to such degrees of pain, as sometimes remain after their severity is over; lest an inward hard

tumour, should be generated, which may occasion the most inveterate and tedious maladies.

An inflammation of the intestines, and also of the stomach, may also terminate in an abscess, like an inflammation of any other part; and it may be apprehended that one is forming, when, though the violence of the pain abates, there still remains a slow, obtuse heavy pain, with general inquietude, little appetite, and frequent shiverings; the patient at the same time not recovering any strength. In such cases the patient should be allowed no other drinks than whey and barley water; and no food but panada, gruel, or broths.

The breaking of the abscess may sometimes be discovered by a slight swoon or fainting fit; attended with a perceivable cessation of a weight or heaviness in the part, where it was lately felt; and when the pus, or ripe matter, is effused into the gut, the patient sometimes has reachings to vomit, a vertigo or swimming in the head, and the matter appears in the next stools. In this case there remains an ulcer within the gut, which, if either neglected, or improperly treated, may pave the way to a slow wasting fever, and even to death. Yet this has been cured by making the patient live solely upon skimmed milk, diluted with one third part water, and by giving every other day a clyster, consisting of equal parts of milk and water, with the addition of a little honey.

When the abscess breaks on the outside of the gut, and discharges its contents into the cavity of the belly, it becomes a very miserable case, and demands such further assistance as cannot be particularized here.

DIRECTIONS FOR THE RECOVERY OF DROWNED PERSONS.

WHENEVER a person who has been drowned has remained a quarter of an hour under water, there can be no considerable hope of his recovery; the space of two or three minutes in such a situation being often sufficient to kill a man irrecoverably. Nevertheless, as several circumstances may happen to have continued life, in such an unfortunate situation, beyond the ordinary term, we should always endeavour to afford them the most effectual relief, and not give them up as irrecoverable too soon; since it has often been known, that at the expiration of two, and sometimes even of three hours, such bodies have exhibited some apparent tokens of life.

Water has sometimes been found in the stomachs of drowned persons; at other times none at all. Besides, the greatest quantity which has ever been found in it has not exceeded that, which may be drank without any inconvenience; whence we may conclude, the mere quantity was not mortal; neither is it very easy to conceive how drowning persons can swallow water. What really kills them is mere suffocation, or the interception of air, of the action of breathing; also the water which descends into the lungs, and which is determined there, by the efforts they necessarily, though involuntarily make, to draw breath, after they are under water; for there absolutely does not any water descend, either into the stomach or the lungs of bodies plunged into water, after they are dead; a circumstance which serves to establish a legal sentence and judgment, in some criminal cases and trials. This water, intimately blending itself with the air in the lungs, forms a viscid inactive kind of froth, which entirely destroys the functions of the lungs; whence the miserable sufferer is not only suffocated, but the return of the blood from the head being also intercepted, the blood-vessels of the brain are overcharged, and an apoplexy is combined with the suffocation. This second cause, that is, the descent of the water into the lungs, is far from being general; it having been evident from the dissection of several drowned bodies, that it really never had existed in them.

The intention that should be pursued, is that of unloading the lungs and the brain, and of reviving the ex-

tinguished circulation. For which purpose we should,

1. Immediately strip the sufferer of all his wet clothes, rub him strongly with dry coarse linen, put him, as soon as possible, into a well heated bed, and continue to rub him well a very considerable time together.

2. A strong and healthy person should force his own warm breath into the patient's lungs, and also the smoke of tobacco,* if some be at hand, by means of some pipe or funnel, or the like, that may be introduced into the mouth. This air or fume, being forcibly blown in, by stopping the patient's nostrils close at the same time, penetrates into the lungs, and there rarifies by its heat that air, which blended with the water, composed the viscid spume or froth; hence that air becoming disengaged from the water, recovers its spring, dilates the lungs, and, if there still remain within any principle of life, the circulation is renewed again that instant.

3. If a moderately expert surgeon be at hand, he must open the jugular vein, or any large vein in the neck, and let out ten or twelve ounces of blood; such a bleeding is serviceable on many accounts. First, merely as bleeding, it renews the circulation, which is the effect of bleeding in such swoonings, as arise from an intercepted or suffocated circulation. Secondly, it is that particular bleeding which most suddenly removes, in such cases, the obstruction of the head and lungs; and, thirdly, it is sometimes the only vessel, whence blood will issue under such circumstances. The veins of the feet then afford none, and those of the arms seldom; but the jugulars almost constantly furnish it.

4. The fume of tobacco should be thrown up, as speedily and plentifully as possible, into the intestines by the fundament. There are instruments devised for this purpose, but as they are not common, it may be effected by other speedy means. One, by which a woman's life was preserved, consisted only in introducing the small tube of a tobacco pipe well lighted up; the head or bowl of it was wrapped in a paper, in which several holes were pricked, and through these the breath was strongly forced. At the fifth blast a considerable rumbling was heard in the stomach; she threw up a little water, and a moment afterwards came to her senses. Two pipes may be thus lighted and applied, with their bowls covered over; the extremity of one is to be introduced into the fundament, and the other may be blown through into the lungs.

Any other vapour may also be conveyed up, by introducing a canula, or any other pipe, with a bladder firmly fixed to it; this bladder is fastened at its other end to a large tin funnel, under which tobacco is to be lighted. This contrivance has succeeded upon other occasions, in which necessity compelled the application of it.

5. The strongest volatiles, such as hartshorn, should be applied to the patient's nostrils. The powder of some strong dry herb should be blown up his nose, such as sage, rosemary, rue, mint, and especially marjoram, or very well dried tobacco, or even the fume of these herbs. But all these means are most properly employed after bleeding, when they are most efficacious and certain.

6. As long as the patient shews no signs of life, he will be unable to swallow, and it is then useless, and even dangerous, to pour much liquid of any kind into his mouth, which could do nothing but keep up, or increase suffocation. It is sufficient, in such circumstances, to instil a few drops of some irritating liquor, which might also be cordial and reviving; but as soon as he discovers any motion he should take, within the space of one hour, five or six common spoonfuls of oxymel of squills diluted with warm water; or, if that medicine is not to be had very speedily, a strong infusion of sage, or of camomile flowers, sweetened with honey, might do instead of it; and, supposing nothing else to be had, some warm water, with the addition of a little common salt, should be

* The mouth of the operator is the best mode of puffing any thing into the lungs.

given, and, perhaps, some warm brandy or rum and water would be as good as any. Some persons are bold enough to recommend vomits in such cases; but they are not without their inconvenience; and it is not as a vomit that we recommend the oxymel of squills.

7. Notwithstanding the sick discover some tokens of life, we should not cease to continue our assistance; since they sometimes expire, after these first appearances of recovery have been visible.

And lastly, though they should be manifestly re-animated, there sometimes remains an oppression, a coughing, and feverishness, which effectually constitute a disease, and then it becomes necessary to bleed them in the arms; to give them barley water plentifully, or elder-flower tea.

Having thus pointed out such means as are necessary and effectual, in such unfortunate accidents—we shall very briefly mention some others, which it is the general custom to recur to and apply in the first hurry.

1. These unhappy people are sometimes wrapped up in a sheep's, or a calf's, or a dog's skin, immediately flead from the animal; such applications have sometimes indeed revived the heat of the drowned; but their operations are more slow, and less efficacious, than the heat of a well warmed bed, with the additional vapour of burnt sugar, and long continued frictions with hot flannels.

2. The method of rolling them in an empty hogshead is dangerous, and consumes important time.

3. That also of hanging them up by the feet is attended with danger, and ought to be wholly discontinued. The froth or foam, which is one of the causes of their death, is too thick and tough to discharge itself, in consequence of its own weight. Nevertheless, this is the only effect that can be expected from this custom of suspending them by the feet, which must also be hurtful, by its tending to increase the overfulness of the head and of the lungs.

Tissot mentions that a girl, eighteen years of age, was recovered, who was motionless, frozen as it were, insensible, with her eyes closed, her mouth wide open, a livid colour, a swollen visage, and a bloating of the whole body, which was overladen with water. This miserable object was extended on a kind of bed of hot or very warm ashes, quickly heated in great kettles; and by laying her quite naked on these ashes, covering her with others equally hot, putting a bonnet on her head, with a stocking round her neck, and heaping coverings over all this, at the end of half an hour her pulse returned, she recovered her speech, and cried out, "I freeze! I freeze!" A little cherry brandy was given to her, and then she remained buried, as it were, eight hours under the ashes; being taken out of them afterwards without any other complaint except that of great lassitude or weariness, which went entirely off the third day. This method was undoubtedly so effectual, that it well deserves imitation, but it should not make us inattentive to the others. Heated gravel or sand mixed with salt, or hot salt alone, would have been equally efficacious, and they have been found so.

The same writer also mentions that two young ducks that were drowned were revived by a dry bath of hot ashes.

Warm ashes, or warm chalk powdered, or warm lime, is effectual in the restoration of flies to life, that have been drowned for a very long time.—Let any one try the experiment, and he will prove the truth of it. We have immersed a fly in a bottle of water, and another in a bottle of strong spirits, until they were to all appearances dead; we have then taken them out, covered them in powdered lime, scraped from the walls, and also with powdered chalk, and allowed them to remain so for ten or twelve minutes, when on removing the covering they moved, and ultimately received the full use of their powers. It is, therefore, fairly to be supposed that this means of restoring life might be attended with benefit to other animals;

for we all breathe and live upon the same principle.

The apparatus supplied by the Royal Humane Society is too well known to require comment—it cannot be too highly praised.

OF DISORDERS ATTENDING THE TERM OF GOING WITH CHILD

THIS is generally a less ailing or unhealthy state in the country, than in very populous towns. Nevertheless country women are subject, as well as citizens, to pains of the stomach, to vomiting in a morning, to head-ache, and tooth-ache; but these complaints very commonly yield to bleeding, which is almost the only remedy necessary for pregnant women.

Sometimes after carrying too heavy burthens; after too much or too violent work; after receiving excessive jolts, or having had a fall, they are subject to violent pains of the loins, which extend down to the thighs, and terminate quite at the bottom of the belly, and which commonly signify that they are in danger of an abortion, or miscarriage.

To prevent this consequence, which is always dangerous, they should

1. Immediately go to bed, and if they have not a mattrass they should lie upon a bed stuffed with straw, a feather bed being very improper in such cases. They should repose, or keep themselves quite still in this situation for several days, not stirring; and speaking as little as possible.

2. They should directly lose eight or ten ounces of blood from the arm.

3. They should not eat flesh, flesh-broth, nor eggs, but live solely on soups, made of farinaceous or mealy substances.

4. They should take every two hours fifteen grains of nitre, and should drink nothing but barley water, while the pains continue.

Some sanguine robust women are very liable to miscarry at a certain time, or stage, of their pregnancy.—This may be obviated by their bleeding some days before that time approaches, and by their observing the regimen we have advised; but this method would avail very little for delicate citizens, who miscarry from a very different cause, and whose abortions are to be prevented by a very different treatment.

OF DELIVERY, OR CHILD-BIRTH.

It has been observed that a great proportion of women die in the country, in or very speedily after their delivery, and that from the scarcity of good assistance, and the great plenty of what is bad; also that a greater proportion of those in cities die after their labours are effected, by a continuance of their former bad habits.

The necessity there is for better instructed, better qualified, midwives, through a great part of this country, is but too manifest an unhappiness; which is attended with the most fatal consequences, and which merits the utmost attention of the government.

The errors which are incurred, during actual labour, are numberless, and too often indeed are also irremediable. It would require a whole book, expressly for that purpose, to give all the directions that are necessary to prevent so many fatalities; and it would be as necessary to form a sufficient number of well qualified midwives to comprehend and to observe them. We shall only mark out one of the causes, and the most injurious one on this occasion; this is the custom of giving hot irritating things, whenever the labour is very painful, or is slow; such as castor, or its tincture, saffron, sage, rue, savin, oil of amber, wine, Venice treacle, wine burnt with spices, coffee, brandy, aniseed-water, walnut-water, fennel-water, and other drams or strong liquors. All these things are so many poisons in this respect, which, very far from promoting the woman's delivery, render it more difficult by inflaming the womb (which cannot then so well contract itself) and the parts, through which the birth is to pass, in consequence of which they swell, become more straitened, and cannot yield or be dilated. Sometimes these stimulating hot medicines also bring on bleedings, which prove mortal in a few hours.

A considerable number, both of mothers and infants, might be preserved by the directly opposite method. As soon as a woman, who was in very good health just before the approach of her labour, being robust and well made, finds her travail come on, and that it is painful and difficult,—far from encouraging those premature efforts, which are always destructive, and from furthering them by the pernicious medicines just enumerated,—she should have her bowels gently opened by castor oil, or an injection, which will prevent the swelling and inflammation, assuage the pains, relax the parts, and dispose every thing to a favourable issue.

During actual labour no other nourishment should be allowed but a little panada every three hours, and as much toast and water as the woman chooses.

Every fourth hour a clyster should be given, consisting of a decoction of mallows, and a little oil, and stupes wrung out of a fomentation of simple hot water, which is the most efficacious of any, should be applied over the belly.

The midwives, by taking this method, are not only certain of doing no mischief, but they also allow nature an opportunity of doing good; as a great many labours, which seem difficult at first, terminate happily; and this safe and unprecipitate manner of proceeding, at least affords time to call in further assistance. Besides, the consequences of such deliveries are healthy and happy; when by pursuing the heating, oppressive practice, even though the delivery be effected, both the mother and infant have been so cruelly, though undesignedly, tormented, that both of them frequently perish.

It is true that these means are insufficient, when the child is unhappily situated in the womb; or when there is an embarrasing conformation in the mother: though at least they prevent the case from proving worse, and leave time for calling in men-midwives, or other female ones who may be better qualified.

We must remind the midwives, that they should be very cautious of urging their women to make any forced efforts to forward the birth, which are extremely injurious to them, and which may render a delivery very dangerous and embarrasing, that might otherwise have been happily effected.

The weakness, in which the labouring woman appears, makes the bystanders fearful that she will not have strength enough to be delivered; which they think abundantly justifies them in giving her cordials; but this way of reasoning is very weak and chimerical —their strength, on such occasions, is not so very speedily dissipated; the small light pains sink them, but in proportion as the pains become stronger, their strength arises, being never deficient, when there is no extraordinary and uncommon symptom; and we may reasonably be assured, that in a healthy, well formed woman, mere weakness never prevents a delivery.

OF THE CONSEQUENCES OF LABOUR, OR CHILD-BIRTH.

The most usual consequences of childbirth in the country are,

1. An excessive bleeding.
2. An inflammation of the womb.
3. A sudden suppression of the usual discharges after delivery. And
4. The fever and other accidents, resulting from the milk.

Excessive bleedings or floodings, should be treated with rest and quiet; also cold applications of decoction of oak bark; and if they are very excessive, folds of linen, which have been wrung out of a mixture of equal parts of water and vinegar, should be applied to the belly, the loins, and the thighs; these should be changed for fresh moist ones as they dry, and should be omitted as soon as the bleeding abates.

The inflammation of the womb is discoverable by pains in all the lower parts of the belly, by a tension or tightness of the whole, by a sensible increase of pain upon touching it; a kind of red stain or spot, that mounts to the middle of the belly, as high as

the navel; which spot, as the disease increases, turns black, and then is always a mortal symptom; by a very extraordinary degree of weakness, an astonishing change of countenance, a light delirium or raving, a continual fever, with a weak and hard pulse; sometimes incessant vomitings, a frequent hiccup, a moderate discharge of a reddish, fœtid, and sharp water, frequent urgings to go to stool, a burning kind of heat of urine, and sometimes an entire suppression of it.

This most dangerous and frequently mortal disease should be treated like inflammatory ones. After bleeding, frequent clysters of warm water must by no means be omitted; some should also be injected into the womb, and applied continually over the belly. The patient may also drink frequently of simple barley-water, with a quarter of an ounce of nitre in every quart of it.

The total suppression of the discharge after labour, which proves a cause of the most violent disorders, should be treated exactly in the same manner; but if unhappily hot medicines have been given, in order to force them down, the case will very generally prove a most hopeless one.

If the milk fever run very high, barley-water and lemon-juice, and clysters, with a very light diet consisting of panada, or made of some other farinaceous substances, and that very thin, very generally remove it.

Delicate infirm women, who have not all the requisite and necessary attendance they want; and such as from indigence are obliged to work too soon, are exposed to many accidents, which frequently arise from a want of due perspiration, and an insufficient discharge after delivery, and hence the separation of the milk in their breasts being disturbed, there are milky congestions or knots as it were, which are always very painful and troublesome, and especially when they are formed more inwardly. They often happen on the thighs, in which case barley-water and nitre is to be drank, and the bowels kept open by castor oil, together with fomentations. These two remedies gradually dissipate and remove the tumours, if that may be effected without suppuration. But if that prove impossible, and pus or matter is actually formed, a surgeon must open the abscess, and treat it like any other.

Should the milk coagulate or curdle as it were, in the breast, it is of the utmost importance immediately to attenuate or dissolve that thickness, which would otherwise degenerate into a hardness, and in process of time, into a cancer, that most tormenting and cruel distemper.

This horrible event, however, may be prevented by an application to these small tumours as soon as they appear. For this purpose nothing is more effectual than the following

PILLS.

Take a little of the extract of stinking hemlock with the purple spotted stalk, form it into pills of two grains each. adding as much of the powder of dry hemlock leaves as the pills will take up.

Begin with one pill night and morning, which may be increased.

But under such menacing circumstances, it is always prudent to take the best advice as early as possible.

From the moment these hard tumours become excessively and obstinately so, and yet without pain, we should abstain from every application: all are injurious; and greasy, sharp, resinous and spirituous ones speedily change the hardness into a cancer.

The nipples of women who give milk, are often fretted or excoriated, which proves severely painful to them. One of the best applications is the following ointment: but should the complaint prove very obstinate, the woman ought to be purged, which generally removes it.

OINTMENT FOR SORE NIPPLES.

Take of oil of roses, one pound,
Of red lead, half a pound,
Of vinegar, four ounces.

Boil them together nearly to the consistence of a plaster; then dissolve in the liquid mass an ounce and a half

of yellow wax and two drachms of camphor, stirring the whole about well. Remove it then from the fire and spread it.

MR. WILLIAMS'S* OPINIONS ON THE PROPER USE OF THE WARM BATH.

ONE of the most pernicious opinions that has passed current amongst us is, that the warm bath is weakening and relaxing. This idea in part arose from noticing the languor that prevails in hot weather; but more from the debilitating effects experienced by weakly persons in perspiring very profusely when they have *removed to bed*, on leaving the hot bath. When however, this agent is used judiciously, instead of producing debility, it increases the vigour and animal strength, gives pliancy and suppleness to the limbs, refreshes the spirits, promotes the secretions, and calms and soothes all irritability of the nerves.

The cold bath is adapted peculiarly to many complaints, and the warm bath offers advantages not derivable from the other. There are also many diseases in which either will prove very serviceable. Nor is this at all surprising, (though a seeming paradox that cold and heat should occasion similar results,) for the same ultimate good effect is caused by both, viz. an augmented energy in the organs moving the fluids of the body. Heat acts as a stimulus, which by a direct operation excites and renews the vital movements; and cold, by a more indirect process, attains the same end. There is, therefore, an identity of effect induced: but the influence of cold being more circuitous, is liable to fail, and therefore cannot be endured by all. We believe that there are not so many exceptions to the modified use of the temperate and warm baths, and that they are of more general application.

After the abruptness of sensation ceases (which also abates by practice,) the revived actions of the system are permanently carried on, whether cold or heat has been employed as the means, or both have been used alternately.

The principal effects of warm bathing are derived from its relaxing the contracted parts,—from its general stimulus in exciting increase of circulation in the extreme vessels,—and from perspiration.

The warm bath has a remarkably soothing and composing effect, and induces refreshing sleep. The advantage of heat applied to the body in this way is from the property of water conducting and imparting it more readily than air. By relaxing the surface, perspiration is more readily attained: from this cause bathing is serviceable in fevers, both in soliciting the fluids to the skin, and by the cooling process of evaporation, which abates the extreme heat, and mitigates the feverish state.

We apply the term Warm Bath to that wherein the sensation of warmth permanently remains. Previous reduction of temperature will cause the sensation of warmth to be perceived from water of a less degree of heat, but it will be more transient.

The heat of the warm bath is from 92°. to 98°. The hot bath ranges from this last point to 105°, which is probably the greatest degree of heat that can be endured of water.

CONSTITUTIONS SUITED TO THE WARM BATH.

Warm bathing is a congenial remedy for weak and irritable constitutions—for those persons on whom common irritation produces a painful effect. The shock of cold would be overpowering to individuals of this class; but a gentle stimulation of the warm bath allays the morbid irritability of the nerves, lessens the frequency of the pulse, regulates the animal temperature, and gives activity and placidity to the spirits. It is accordingly found refreshing and grateful after the toil of a long journey, and after fatigue of body or mind. It is

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* This gentleman is a surgeon residing at Portsea, and is an able and intelligent writer.

also well suited to the sensitive frame of persons whose occupations are sedentary, especially to females; and to the man of letters, who after his painful researches and studies, finds the warm bath a means of repairing the waste of bodily energy that his excessive mental efforts have occasioned. Those who, without apparent disease, are tender, infirm, and delicate, and those especially of a nervous temperament, will find it an important means of relief; and if we recommend the cold bath for them, it is but to harden the constitution, after the warm or temperate bath has been first used. But the warm bath is peculiarly adapted for those in whom sensibility accumulates—for those who, by the varied and complicated irritations occurring from refinement, acutely feel at every nerve, and as it were "live all along the line." The light of heaven is for them too obtrusive; the air painfully impresses them with cold or suffocates with heat; the fragrance of the field is "aromatic pain," and the too delicate and exquisite sense, tortures where it was intended to gratify and delight. The nervous patient seldom receives the tribute of commisseration; but is too frequently the object of satire and pleasantry to the witty and the thoughtless. To ridicule such persons is the height of barbarity: to indulge their varying freaks and fancies is to cherish and foment the disease. A kind and considerate attention, without further countenancing their eccentricities, is more honorable and rational, than to treat their complainings with a slighting indifference.

The warm bath may be recommended with confidence to blunt their excessive sensibility, and to calm the perturbation of the irritated nerves. This too exquisite susceptibility is moderated thereby, and a healthful state of nerves is restored. The cold bath is afterwards of use to inure the delicate system to the various impulses and changes that it must necessarily encounter in life.

A torpid state of the body is benefited by the warm bath. When the blood flows languidly through its channels, and the pulse beats slowly —when the liver, and perhaps the brain acquire large supplies of blood, but return it slowly;—and thus there is formed a congestion or surcharge of these important parts, and their functions are thereby inadequately performed.

Inactivity, sluggishness, and drowsiness, denote the loaded state of the brain; and the sure marks of disordered liver are indigestion, costiveness, and the yellow tinge of the skin which prevail. The warm bath, in such, draws the fluids from the burthened organs, and tends to distribute them fairly over the system. Improved appetite, regular bowels, and increased activity, are the usual benefits derived from its judicious application.

The warm bath appears to be very congenial to the constitution of children. It is needful for their growth, and for the development of the organs, that the blood and other fluids should abound in a greater proportion than in adults. Hence most of their diseases arise from unequal determinations of blood: and the good effects of warm bathing in balancing the proportion of fluids throughout the body are very remarkable.—They possess, likewise, more irritability,—and the effects of the warm bath are generally denoted by an easy and refreshing sleep. This remedy also, in relieving the glands of the skin, tends greatly to correct those irritations of the alimentary canal that greatly annoy and distress young children.

The aged will find warm bathing well suited to soften the contracted fibres, to cleanse the obstructed pores, and to give a fillip to the tardy circulation. It communicates warmth, which in the languid constitution of old persons is of the utmost importance, and we may be allowed to say, that its frequent use would occasion a decrease of the number of sudden deaths amongst old people in cold weather.

The warm bath, probably, in some degree causes an augmentation of bulk of the entire mass of the circulating

fluids, which thereby mechanically penetrate into the extreme vessels of the skin; but its great advantages are derived unquestionably from imparting a congenial stimulus to the heart and vital apparatus concerned in carrying on the circulation.

When one first enters the bath at the heat of the blood, a pleasing sense of warmth diffuses itself along the nerves; which is greatest when the person remains sometime undressed before he goes in. A sense of laborious breathing immediately follows, but gradually abates as the circulation becomes tranquilized.—The pulse is at first a little increased in frequency, but soon returns to its natural state. Where the circulation is previously augmented from irritability, we believe that the warm bath generally moderates the pulse. Hence we have experienced this effect in our personal use of the bath. The pulse, when we began its use, was undeviatingly more than 100°. in the erect posture, but in less than five minutes in the warm bath it even fell to 80°. After the irritability of the system had been lessened by its use, and the mean state of the pulse was 80°. the soothing and composing influence of the remedy would still be remarkably conspicuous, in causing a further reduction of its velocity, and it generally remained ranging from 60°. to 65°. in the bath. When bathing was employed at higher temperatures, the effect on the pulse was different: at 100°. the circulation was quickened, and its force increased: at 103°. and and upwards to 105°. the effects of heat were painfully experienced; the heart seemed to have redoubled its energy, and the arteries corresponded in action: the pulse from 80°. became 100°. but in five minutes the action of the vessels of the temples was violent, and head-ache with giddiness was felt. At this moment a copious flow of perspiration burst out around the head and neck, which relieved the oppressed vessels of the head, but notwithstanding this relief, a great tendency to faintness continued, that induced us abruptly to finish our experiments.

The heat of the body as indicated by the thermometer, was raised three or four degrees. The effect of warm bathing, when above the natural heat of the body, is that of an active stimulus, and we can thus readily perceive the constitutions in which it can be applied with good effect; as in cases of chronic rheumatism, in rupture, &c. but from the excessive action of the blood vessels excited, it would be very detrimental to use it of this degree, (which for the sake of distinction we shall call the hot bath,) wherever there appears to be marks of a loaded state of any important organ, since the evil would be very materially increased thereby.

At the celebrated Thermal Waters, at Bath, a course of evacuations is always ordered, that the high temperature may not prove injurious to the system.

TIME AND MODE OF BATHING.

In chronic rheumatic cases the most suitable period for using the bath is in the evening; when the patient retires immediately to his bed; for relaxation of the constituent parts by perspiration is the indication to be kept chiefly in view. But in a variety of cases, where the warm bath is useful, it would be highly improper to weaken the system by keeping up the discharge from the skin. Perhaps the attemperation and balance of the animal heat, by moderate evaporation consequent on warm bathing, are in the majority of cases very useful. The morning, before dinner, is the best time of day for bathing.

Count Rumford, who has given us a very interesting account of the advantages that he obtained by warm bathing, was accustomed to use the bath about two hours before dinner; when he found a beneficial effect on the stomach in improving its tone, and in improving the appetite and digestion. The narration of his case, in his characteristical simplicity and clearness of style, is altogether instructive. We give it in his own language:—

COUNT RUMFORD'S OPINION ON WARM BATHING.

"I first went into a bath (at Harrowgate) warmed to about 96°. of Fahrenheit's thermometer, every third day. At first I went into the bath about ten o'clock in the evening, and remained in it from ten to fifteen minutes, and immediately on coming out of it went to bed, my bed having been warmed with a view to prevent my taking cold.

"Having pursued this method for some time, and finding myself frequently feverish and restless after bathing, I accidentally in conversation mentioned the circumstance to an intelligent gentlemen who happened to lodge in the house, and who had long been in the habit of visiting Harrowgate every year. He advised me to change my hour of bathing, and to stay longer in the bath, and above all to avoid going into a warm bed on coming out of it. I followed his advice, and shall have reason all my life to thank him for it.

"I now went into the bath regularly every third day, about two hours before dinner; I staid in it half an hour, and on coming out of it, instead of going into a warmed bed, I merely had myself wiped perfectly dry with warmed cloths, in a warmed room, adjoining to the bath; and dressing myself in a bed gown, which was moderately warm, I retired to my room; where I remained until dinner time, amusing myself with walking about the room and with reading or writing, until it was time to dress for dinner. The good effects produced by this change of method were too striking not to be remarked and remembered. I was no longer troubled with any of these feverish heats after bathing, which I experienced before; and so far from being chilly, or being particularly sensible to cold on coming out of the bath, I always found myself less sensible to cold after bathing than before; I even observed repeatedly and invariably, that the glow of health and pleasing flow of spirits, which resulted from the full and free circulation of the blood, which bathing had brought on, continued for many hours; and never was followed by any thing like that distressing languor which always succeeds to an artificial increase of circulation, and momentary flow of spirits which are produced by stimulating medicines.

"I regularly found that I had a better appetite for my dinner on those days when I bathed, than on those when I did not bathe; and also that I had a better digestion and better spirits, and was stronger to endure fatigue, and less sensible to cold in the afternoon and evening."*

The Count acquiring resolution by his success, now bathed every second day; and after some time, ventured to take the gratification every day. This was thought very hazardous, but disregarding custom, as he improved in health from the practice, he continued to bathe every day in a bath at 97°. at about two o'clock in the afternoon, and for half an hour at each immersion, for thirty-five days.

Certainly much will depend on the strength of constitution. We think, for those who are unaccustomed to the practice, a quarter of an hour every second day, would be quite sufficient in their early trials. It will be proper, however, to lengthen the the period of immersion, as custom enables the invalid to bear it.

On quitting the bath, a flannel dress should be put on, or a blanket be thrown over the body, to prevent the chill from evaporation. Plentiful rubbing with warm cloths before putting on the clothes, will beneficially prolong the advantages derived from the bath; but after this has been accomplished, for the reason already assigned, the apparel should be put on, and the ordinary avocations may be resumed. During the severe weather in the winter we never hesitate to venture out in the air immediately after bathing, taking care to preserve the heat by keeping constantly moving.

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* Count Rumford's Works, vol. iii. Essay 13.

DRAUGHT TO BE TAKEN OCCASIONALLY DURING A COURSE OF WARM BATHING.

Take of tincture of rhubarb, 2 drachms
Of compound spirits of lavender, 20 drops,
Mix,—and make into a draught.

THE TOILETTE OF FLORA.

UNDER this title we shall occasionally present our Fair Readers with recipes for compounding the most valuable cosmetics which are known to the British and Foreign Perfumer; and which are usually sold at prices too high to admit of general purchase.—We shall commence with

A LIQUID TO CLEAR THE COMPLEXION.

The juice that issues from the birch tree when wounded with an auger in spring, is detersive and excellent to clear the complexion. The same virtue is attributed to the depurated juice of this tree and its distilled water.

FOR ROTTEN TEETH.

Make a balsam with a sufficient quantity of honey, a scruple of gum mastic, and ten grains of roch alum.—Apply a small portion of this mixture frequently to the decayed tooth.

POWDER TO CLEAN THE TEETH.

Take of dragon's blood and cinnamon, each, one ounce and a half; of burnt alum, one ounce: beat all together into a very fine powder, and rub a little on the teeth every other day.

TO MAKE THE TEETH BEAUTIFULLY WHITE.

Take dried leaves of hyssop, wild thyme, and mint, of each, half an ounce; roch alum, prepared hartshorn, and salt, of each, a drachm; calcine these ingredients together in a pot placed on burning coals; when sufficiently calcined, add thereto pepper and mastic, of each, half a drachm; myrrh, a scruple; reduce the whole into a very fine powder, and mix into the consistence of an opiate with storax dissolved in rose-water. Rub the teeth with a small quantity of this opiate every morning, and afterwards wash the mouth with warm water.

BEAUTIFYING WASH.

Take equal parts of white tansey and rhubarb water, and to every half pint add two drachms of sal ammoniac.—This fluid is applied with a feather, or hair pencil, three or four times a day, to pimples or tetters, on any part of the body.

TO PREVENT PITS AFTER THE SMALL-POX.

Dissolve an ounce and a half of salt in a pint of mint-water; boil them together, and skim the liquor. This cosmetic is very useful to wash the face, after the small-pox, in order to clear away the scabs, allay the itching, and remove the redness.

TO WHITEN THE SKIN.

Take equal parts of the roots of centaury and the white vine; a pint of milk; and the crumb of a white loaf: distil in a glass alembic. The distilled water, for use, must be mixed with an equal quantity of Hungary water:—it then admirably clears the complexion.

PRESERVATIVE FROM TANNING.

Infuse in clean water for three days a pound of lupines; then take them out of the water and boil them in a copper vessel with five quarts of fresh water. When the lupines are boiled tender, and the water grows rather ropy, press out the liquor and keep it for use. Whenever you are under the necessity of exposing it to the sun, wash the face and neck with this preparation.

The oil of unripe olives, in which a small quantity of gum mastic has been dissolved, possesses the same virtues.

TO REMOVE FRECKLES.

Take houseleek and celandine, of each an equal quantity; distil in a sand heat, and wash with the distilled water.

BALSAMIC WATER TO REMOVE WRINKLES.

Take barley-water, strain it through a piece of fine linen cloth, and add thereto a few drops of tincture of myrrh; shake the bottle incessantly for two or three hours together, until the balsam is entirely incorporated with the water, which is known by the turbid milky appearance of the water. This mixture embellishes the complexion, and preserves the bloom of youth. If used only once a day, it takes away wrinkles and gives the skin a surprising lustre. Before this fluid is used, the face should be washed clean with rain-water.

TO REMOVE WORMS IN THE FACE.

Wash the face with the distilled waters of bean flowers, water lillies, white lillies, melon seeds, iris roots, Solomon's seal, and white roses; either mixed together or separately.

THE DUCHESS DE LA VRILLIERE'S MOUTH-WATER.

Take of cinnamon, two ounces; cloves, six drachms; water cresses, six ounces; fresh lemon peel, an ounce and a half; red rose leaves, an ounce; scurvy-grass half a pound; spirit of wine, three pints. Bruise the spices, and cut the water cresses and scurvy-grass small;—macerate the whole in the spirit of wine, in a bottle well corked, during the space of twenty-four hours; then distil to dryness in a vapour bath, and afterwards rectify the distilled water by repeating the process.

This water strengthens the gums, prevents scurvy, and cures cankers and ulcerations in the mouth. It is used to gargle the mouth, either by itself, or diluted with water, as occasion may require.

THE BEST WAY TO STOP BLEEDINGS.

EVERY one should know how to stop ordinary bleedings; yet it is a melancholy fact, that scarcely one in a thousand knows any thing of it. The first thing generally done is, to press upon the parts, either by the hand or bandage; and although pressure is one of the best modes of stopping sudden bleedings, yet it is not to be relied upon as a safe application, unless properly regulated; for often has it occurred that tight ligatures applied to stop bleeding, have brought on mortification—a case of which recently occurred in St. George's Hospital, even under the eye and direction of a surgeon. Hence it becomes an object of the first importance to all to know the best means of stopping the flow of blood.

We shall not enter into a detail of the anatomy of the blood-vessels, nor puzzle the general reader with physiological enquiries, but merely give an outline of the circulation, sufficient to afford a ground or principle, upon which the means may be supported.

First, then, let it be remembered that there are two sets of blood-vessels —the arteries and the veins. The arteries are deep seated; the veins both deep seated and superficial.

2nd. The blood comes in a stream, jetted forth by every contraction of the heart, to the most extreme parts of the body; while the same blood *returns* through the veins back to the heart.

3rd. The arteries possess elastic coverings, or rather are in themselves elastic; therefore the stopping of such vessels, when wounded, are more difficult to effect than wounded veins, because they are not so easily kept together on account of this elasticity; and also on account of the stream of blood which passes through them, being affected by every pulsation of the heart, and to which the veins are not liable.

4th. The colour of arterial blood is a bright red, while veinous is blackish, and in bleedings from arteries the blood comes in a pulsating manner; from the veins it comes in a continued stream.

By considering these points, it will be evident that pressure *above* the wound in an artery will be proper to stop bleeding, and *below* the wound in a *vein*. This is in cases when immediate pressure is called for, and

in all cases of profuse bleeding, pressure must be the first means of suppressing it, and continued until others more effectual are applied.

In bleedings from veins, which is by far the most frequent, it will be only necessary to apply over the part a compress of lint or soft rag, and bind sufficiently tight to stop the blood, taking care that the greatest degree of pressure be *below* the wound and on it. In bleedings from arteries, pressure will not always do; for if the artery be large, such as the main artery of the leg, thigh, or arm; then, indeed, must the surgeon be immediately called in, and it will be, no doubt, found necessary to tie a ligature upon the trunk of the artery. In this case pressure must be made by a compress and a bandage until a surgeon arrives, and the pressure must be *above*, as well as on the part wounded.

In all cases of bleeding, the following lotion will be proper to wet the parts with.

LOTION TO STOP BLEEDING.

Take of sulphate of copper, (blue vitriol,) half an ounce,
Dissolve it in two ounces of water.

A little of this may be poured on the wound, and then as good an application as any, will be a sufficient quantity of cobwebs to block up the opening; and over this a properly judged pressure—that is, just as much as will stop the stream without stopping the circulation.

Agaric and sponge, in cases of deep wounds, may be applied with advantage, by placing a little of either firmly on the parts, and binding up with a bandage.

Cold applications, such as cold water, ice, and exposing to the cold air, often stop slight bleedings, and these should be tried before other means be resorted to.

If after the first application of pressure to a bleeding surface, which stops the blood, that pressure appears not to impede the circulation, *it should not be removed under any circumstances*, for the surgeon can do no more than stop it, and being stopped, we should not consider by what means, only let the part remain so, as long as it will without bleeding, before any change should be made.

On the whole, the person unacquainted with surgery, cannot do better than to first wet any bleeding part with a little of the above lotion, (which any one can get in a minute) and then bind up the parts, covering them first with cobweb, cotton, or sponge.

Celsus advises the wound to be filled up with dry lint, over which is to be laid a sponge dipped in cold water, and pressed on the part with the hand. If, notwithstanding this, the bleeding should continue, he recommends repeatedly applying fresh lint wet with vinegar. This plan will be found successful in most ordinary cases of bleeding, and may be tried before others.

TO STOP BLEEDING FROM THE NOSE.

BLEEDING from the nose is in most cases a salutary effort of nature to rid the system of a superabundant quantity of blood: however, it sometimes arises from debility, and is often continued to a dangerous length. In such cases means must be employed to stop the flow of blood as soon as possible. The most usual amongst the people are cold water applied by cloths across the nose; a cold iron or a key applied to the back of the neck; and snuffing vinegar up the nostrils. These are good remedies, and will frequently succeed; cold being the principle on which they act: but in obstinate cases the patient must be made to lie on his back; cold wet cloths applied to the forehead, bridge of the nose, and ears; and he must snuff up either a little strong spirits of wine or turpentine, which will be found successful. The following is also excellent, by dipping lint into it and pushing it up the nostrils.

LOTION TO STOP BLEEDING FROM THE NOSE.

Take of spirits of nitrous ether, half a drachm,
Of tincture of myrrh, 2 drachms,
Mix.

DISEASES OF SEDENTARY PERSONS.

No. 2.

OF PAINTERS.

If we consult the histories of painters, we shall find they were not long-lived; especially if we confine our view to such as made a distinguishing figure. History informs us, that Raphael Urbin, a very famous painter, was snatched away in the very flower of his age; and Balthazar Castilioneus condoled his untimely death in poetry. It is true, the diseases of this sort of men may be imputed to their sedentary life, and the melancholy that feeds upon them, while they retire from human society, and bend all their thoughts upon the execution of the designs they have formed in their fancies. But the principal cause of their sickliness is the matter of the colours, which is always among their hands and under their nose—red and white lead, cinnabar, cerus, varnish, oil of walnuts, and oil of linseed, with which they temper their colours, and several other paints made of various minerals. Hence it is that their shops have such an overcoming smell, which is chiefly owing to the varnish and these oils; and perhaps the loss of smell usual among painters, flows from no other cause. Besides, when painters are about their work, their clothes become impregnated with these offensive matters, so that they cannot avoid taking in at the mouth and nostrils their exhalations, even when they are not employed at their work. Cinnabar is the offspring of mercury, ceruse is made of lead, verdigrease of copper, and the ultra marine colour of silver; for the metallic colours are much more durable than those of a vegetable extraction, and for that reason the painters value them more. Therefore it is plain, that almost all the ingredients of colours are taken from the mineral kingdom, and by consequence, painters must be liable to the same distempers, though not in so violent a degree, with the workmen who work in metal.

Fernelius gives a curious account of an Anjou painter, who was seized at first with a shaking and trembling in the fingers and hands, and afterwards with convulsions in the same parts, which likewise affected the whole arm. Some time after, the same symptoms appeared in the feet, and at last he was taken with such violent pain in his stomach and both the hypochondria, that neither clysters, fomentations, baths, nor any sort of remedy gave him ease. The only relief he had in the violence of the fits was to have three or four men leaning with all their weight upon his stomach, the compression of which lessened the torment. In this miserable condition he continued for three years and then died consumptive. Our author says, the physicians were strangely divided in their opinions of the true and genuine cause of such a dismal disorder, and that not only before but after opening the body; for there was nothing preternatural to be seen about the viscera. His opinion is that this painter having used himself to wipe his pencil with his fingers, and suck it dry with his mouth, it is likely that the cinnabar was absorbed through the fingers, and the other deleterious ingredients, being in part swallowed, combined in producing the disorder.

There is no species of cholic more violent and afflicting than that which arises from the inhalations of white and red lead; and so common is it amongst painters, that physicians call it "the painter's cholic." Upon this disease we shall specially treat in another part of our work.

Melancholy is common amongst painters, and a wan colour mostly mark their faces. They are also much subject to fits. It is said of Antonius de Allegris, commonly called Corregiensis, from Corregio, the place of his nativity, that he was so melancholic, and even stupid, that he had no sense of the value and excellencies

either of himself or of his works—so much so, that he returned part of the money paid him for his pictures, on the ground that he believed they were not worth so much; yet they are now above any price.

Painters who work in the open air constantly, are not in general so unhealthy as those who paint within doors; the inhalations through the mouth, and the absorption through the skin not being so powerful; but even those are not wholly free from disorder, unless they counteract the evil effects of their employment by proper remedies.

DIRECTIONS TO MAKE AN ECONOMICAL FAMILY MEDICINE CHEST.

GET a strong box made of any material you may think fit, so as to hold the following medicines and materials:—

- 1 lb of Epsom salts—dose 1 oz.
- 1 lb of good sweet Lard—This will serve every purpose of salve and ointment
- 1 oz. Rhubarb—Dose from 10 to 30 grains
- 1 oz. Jalap—Dose from 15 to 30 grains
- 2 drachms of Calomel—Dose from 1 to 5 grains
- ½ an ounce of Ipecacuanha—Dose for an emetic 25 grains
- 1 oz. of sulphate of Zinc—8 grains to an ounce of water makes a healing wash for sores
- 4 oz. of Blistering mass
- 1 bottle of Castor Oil—Dose half an ounce
- ½ lb of Senna leaves—Dose one cup of the tea
- Some sticking-plaister—some tow—some lint—a skin of leather, and a syringe for clysters.

These can be all purchased for less than a pound; and no house ought to be without them, particularly in the country.

A COMPENDIUM OF SOBER LIFE,

SHOWING THE SUREST METHOD OF CORRECTING AN INFIRM CONSTITUTION.

BY LEWIS CORNARO.

CHAPTER II.

MY treatise on a sober life has begun to answer my desire, in being of service to many persons born with a weak constitution, who, every time they commit the least excess, find themselves greatly indisposed, a thing which, it must be allowed, does not happen to robust people. Several of these persons of weak constitutions, on seeing the foregoing treatise, have betaken themselves to a regular course of life, convinced, by experience, of its utility. In like manner I should be glad to be of service to those who are born with a good constitution, and presuming on it lead a disorderly life; whence it comes to pass, that on their attaining the age of sixty, or thereabouts, they are attacked with various pains and diseases; some with the gout, some with the sciatica, and others with pains in the stomach, and the like, to which they would not be subject were they to embrace a sober life; and as most of them die before they attain their eightieth year, they would live to a hundred, the term allowed to man by God and nature; and it is but reasonable to believe, that the intention of this our mother is, that we should all attain that term, in order that we might taste the sweets of every state of life; but, as our birth is subject to the revolution of the heavens, these have great influence over it, especially in rendering our constitutions robust or infirm; a thing which nature cannot ward against; for, if she could, we should all bring a good constitution with us into the world. But then she hopes that a man, as endowed with reason and understanding, may of himself compensate, by dint of art, the want of that which the heavens have denied him; and, by means of a sober life, contrive to mend his infirm constitu-

tion, live to a great age, and always enjoy good health.

For man, it is not to be doubted, may by art exempt himself in part from the influence of the heavens; it being the common opinion that the heavens give an inclination, but do not impel us; for which reason the learned say that a wise man rules the stars. I was born with a very choleric disposition, insomuch, that there was no living with me; but I took no notice of it, and considered that a person, swayed by his passion, must, at certain times, be no better than a madman; I mean at those times when he suffers his passions to predominate, because he then renounces his reason and understanding. I, therefore, resolved to make my choleric disposition give way to reason; so that now, though born choleric, I never suffer anger entirely to subdue me.

The man who is naturally of a bad constitution, may, in like manner, by dint of reason, and a sober life, live to a great age and in good health, as I have done, who had naturally the worst, so that it was impossible I should live above forty years, whereas I now find myself sound and hearty at the age of eighty-six; and were it not for the long and violent fits of illness which I experienced in my youth, to such a degree that the physicians gave me over, and which robbed me of my radical moisture, a loss absolutely irreparable, I might expect to attain the above mentioned term of one hundred. But I know, for good reasons, that it is impossible, and, therefore, do not think of it. It is enough for me that I have lived forty-six years beyond the term I had a right to expect, and that, during this long respite, all my senses have continued perfect; and even my teeth, my voice, my memory, and my heart; but what is still more, my brain is more itself now than ever it was, nor do any of these powers abate as I advance in years, and this because, as I grow older, I lessen the quantity of my solid food.

This retrenchment is necessary, nor can it be avoided, since it is impossible for a man to live for ever; and as he draws near his end he is reduced so low as to be no longer able to take any nourishment, unless it be to swallow, and that too with difficulty, the yolk of an egg, in the four-and-twenty hours, and thus end by mere dissolution, without any pain or sickness, as I expect will be my case. This is a blessing of great importance, yet may be expected by all those who shall lead a sober life, of whatever degree or condition, whether high, middling, or low; for we are all of the same species, and composed of the same four elements; and since a long and healthy life ought to be greatly coveted by every man, as I shall presently show; I conclude that every man is bound in duty to exert himself to attain longevity, and that he cannot promise himself such a blessing without temperance and sobriety.

Some allege that many, without leading such a life, have lived to a hundred, and that in constant health, though they ate a great deal, and used, indiscriminately, every kind of viands and wine, and therefore flatter themselves that they shall be equally fortunate; but in this they are guilty of two mistakes: the first is, that it is not one in a hundred thousand that ever attains that happiness; the other mistake is, that such, in the end, most assuredly contract some illness, which carries them off; nor can they ever be sure of ending their days otherwise, so that the safest way to attain a long and healthy life is, at least after forty, to embrace sobriety. This is no such difficult affair, since history informs us of so many, who, in former times, lived with the greatest temperance; and I know that the present age furnishes us with many such instances, reckoning myself one of the number; we are all human beings, and endowed with reason, consequently we are masters of all our actions.

This sobriety is reduced to two things, quality and quantity. The first, namely quality, consists in nothing but not eating food, or drinking wines, prejudicial to the stomach.—The second, which is quantity, consists in not eating or drinking more than the stomach can easily digest—which quantity and quality every man

should be a perfect judge of by the time he is forty, fifty, or sixty; and whoever observes these two rules may be said to live a regular and sober life. This is of so much virtue and efficacy, that the humours of such a man's body become most homogeneous, harmonious, and perfect; and, when thus improved, are no longer liable to be corrupted or disturbed by any other disorders whatsoever, such as suffering excessive heat or cold, too much fatigue, want of natural rest, and the like, unless in the last degree of excess. Wherefore, since the humours of persons who observe these two rules, relative to eating and drinking, cannot possibly be corrupted, and engender acute disease, the sources of an untimely death, every man is bound to comply with them; for, whoever acts otherwise, living a disorderly instead of a regular life, is constantly exposed to disease and mortality, as well in consequence of such disorders, as of others without number, each of which is capable of producing the same destructive effect.

It is indeed true that even those who observe the two rules relating to diet, the observance of which constitutes a sober life, may, by committing any one of the other irregularities, find himself the worse for it in a day or two, but not so as to breed a fever.—He may, likewise, be affected by the revolutions of the heavens; but neither the heavens nor those irregularities are capable of corrupting the humours of a temperate person, and it is but reasonable and natural it should be so, as the two irregularities of diet are interior, and the others exterior.

But as there are some persons, stricken in years, who are, notwithstanding, very sensual, and allege, that neither the quantity nor quality of their diet makes any impression upon them, and therefore eat a great deal of every thing, without distinction, and indulge themselves equally in point of drinking, because they are insensible in what part of their bodies their stomachs are situate; such, no doubt, are beyond measure sensual, and slaves to gluttony. To these, I answer, that what they say is impossible in the nature of things, because it is impossible that every man who comes into the world should not bring with him a hot, cold, or temperate constitution; and that hot foods should agree with hot constitutions, cold with cold ones, and things that are not of a temperate nature, with temperate ones, is likewise impossible in nature. After all, these epicures must allow that they are now and then out of order, and that they cure themselves by taking evacuating medicines and observing a strict diet. Whence it appears, that their being out of order is owing to their eating too much, and of things disagreeing with their stomach.

There are other old gluttons, who say that it is necessary they should eat and drink a great deal, to keep up their natural heat, which is constantly diminishing, as they advance in years; and that it is, therefore, their duty to eat heartily, and of such things as please their palate, be they hot, cold, or temperate; and that, were they to lead a sober life it would be a short one. To this I answer, that our kind mother, Nature, in order that old men may live still to a greater age, has contrived matters so, that they should be able to subsist on little, as I do; for, large quantities of food cannot be digested by old and feeble stomachs. Nor should such persons be afraid of shortening their days by eating too little, since, when they happen to be indisposed, they recover by eating a mere trifle; for it is a trifle they eat, when confined to a regimen, by observing which they get rid of their disorder. Now, if by reducing themselves to a very small quantity of food, they recover from the jaws of death, how can they doubt but that, with an increase of diet, still consistent however with sobriety, they will be able to support nature when in perfect health?

Others say that it is better for a man to suffer every year three or four returns of his usual disorders, such as the gout, sciatica, and the like, than be tormented the whole year by not indulging his appetite, and eating every thing his palate likes best, since, by a good regimen alone, he is sure to

get the better of such attacks. To this I answer, that our natural heat, growing less and less as we advance in years, no regimen can retain virtue sufficient to conquer the malignity, with which disorders of repletion are ever attended; so that he must die at last of these periodical disorders, because they abridge life, in the same proportion as health prolongs it.

Others pretend that it is much better to live ten years less, than not indulge one's appetite. To this I answer, that longevity ought to be highly valued by men of parts; as to others, it is no great matter if it is not duly prized by them, since they are a disgrace to mankind, so that their death is rather of service to the public.—But it is a great misfortune that men of bright parts should be cut off in that manner, since he who is already a cardinal, might, perhaps, by living to eighty, attain the papal crown; and in the state, many by living some years extraordinary, may acquire the ducal dignity; and so in regard to letters, by which a man may rise so as to be considered a god upon earth; and the like in every other profession.

There are others, who though their stomachs become weaker and weaker as they advance in years, cannot, however, be brought to retrench the quantity of their food, nay, they rather increase it. And because they find themselves unable to digest the great quantity of food with which they must load their stomachs to eat twice in the four-and-twenty hours, they make a resolution to eat but once, that the long interval between one meal and the other, may enable them to eat, at one sitting, as much as they used to do at two; thus they eat till their stomachs, overburthened with much food, pall and sicken, and change the superfluous food into bad humours, which kill a man before his time. I never met with a very aged person who led that manner of life. All these old men I have been speaking of would live long, if, as they advanced in years, they lessened the quantity of their food and ate oftener, but little at a time; for old stomachs cannot digest large quantities of food; old men changing in that respect to children, who eat several times in the four-and-twenty hours.

Others say, that a sober life may, indeed, keep a man in health, but that it cannot prolong life. To this I answer, that experience proves the contrary; and that I myself am a living instance of it. It cannot, however, be said that sobriety is apt to shorten one's days as sickness does; for that the latter abbreviates life, is not to be doubted. Notwithstanding, a man had better be always jocund and hearty, than be obliged to submit now and then to sickness, in order to keep up the radical moisture. Hence it may be fairly concluded, that holy sobriety is the true parent of health and longevity.

O, thrice holy sobriety! so useful to man by the services thou renderest him! thou prolongest his days, by which means he greatly improves his understanding, and by such improvement he avoids the bitter fruits of sensuality, which is an enemy to reason, man's peculiar privilege; those bitter fruits are the passions and perturbations of the mind. Thou, moreover, freest him from the dreadful thoughts of death. How greatly is thy faithful disciple indebted to thee, since by thy assistance, he enjoys this beautiful expanse of the visible world, which is really beautiful to such as know how to view it with a philosophic eye, as thou hast enabled me to do. Nor could I at any other time of life, even when I was young, but altogether debauched by irregularity, perceive its beauties, though I spared no pains or expence to enjoy every season of life. But I found that all the pleasures of that age had their alloys; so that I never knew till I grew old that the world was beautiful. O, truly happy life! which over and above all these favours conferred on thine old man, hast so improved and perfected his stomach, that he has now a better relish for his dry bread, than he had formerly, and in his youth, for the most exquisite dainties: and all this thou hast compassed by acting rationally, knowing

that bread is above all things man's proper food, when seasoned by a good appetite; and whilst a man leads a sober life, he may be sure of never wanting that natural sauce; because by always eating little, the stomach, not being much burthened, need not wait long to have an appetite. It is for this reason that dry bread relishes so well with me; and I know it from experience, and can with truth affirm, I find such sweetness in it, that I should be afraid of sinning against temperance, were it not for my being convinced of the absolute necessity of eating of it, and that we cannot make use of a more natural food. And thou kind parent, Nature, who actest so lovingly by thy aged offspring in order to prolong his days, hast contrived matters so in his favour that he can live upon very little; and in order to add to the favour, and do him still greater service, hast made him sensible, that, as in his youth he used to eat twice a day, when he arrives at old age, he ought to divide that food, of which he was accustomed to make but two meals, into four; because thus divided, it will be more easily digested; and as in his youth he made but two collations in the day, he should in his old age make four; provided, however, he lessens the quantity as his years increase. And this is what I do, agreeably to my own experience; and therefore my spirits, not oppressed by much food, but barely kept up, are always brisk; especially after eating, so that I am obliged then to sing a song, and afterwards to write.

Nor do I ever find myself the worse for writing immediately after meals; nor is my understanding ever clearer; nor am I apt to be drowsy; the food I take being in too small a quantity to send up any fumes to the brain. O, how advantageous it is to an old man to eat but little! Accordingly I who know it, eat but just enough to keep body and soul together; and the things I eat are as follows:—First, bread, panado with an egg, or such other kinds of soup or spoon-meat. Of flesh meat, I eat veal, kid, and mutton. I eat poultry of every kind. I eat partridges and other birds, such as thrushes. I likewise eat fish; for instance, the goldney and the like, amongst sea fish; and the pike, and such like, amongst fresh-water fish. All these things are fit for an old man; and therefore he ought to be content with them, and considering their number and variety, not hanker after others. Such old men as are too poor to allow themselves provisions of this kind, may do very well with bread, panado, and eggs; things which no poor man can want, unless it be common beggars, and as we call them, vagabonds; about whom we are not bound to make ourselves uneasy, since they have brought themselves to that pass by their indolence, and had better be dead than alive; for they are a disgrace to human nature. But though a poor man should eat nothing but bread, panado, and eggs, there is no necessity for his eating more than his stomach can digest. And whoever does not trespass in point of either quantity or quality, cannot die but by mere dissolution. O, what a difference is there between a regular and an irregular life! One gives longevity and health; the other produces diseases and untimely deaths.

O unhappy wretched life, my sworn enemy, thou art good for nothing but to murder those who follow thee! How many of my dearest relations and friends hast thou robbed me of, in consequence of their not giving credit to me!—relations and friends whom I should now enjoy. But thou hast not been able to destroy me, according to thy wicked intent and purpose. I am still alive in spite of thee, and have attained to such an age, as to see around me eleven grandchildren, all of fine understanding and amiable disposition; all disposed to learning and virtue; all beautiful in their persons and lovely in their manners; whom, had I obeyed thy dictates, I should never have beheld. Nor should I enjoy those beautiful and convenient apartments which I have built from the ground, with such a variety of gardens, as required no small time to attain their present

degree of perfection. No; thy nature is to destroy those who follow thee, before they can see their houses or gardens so much as finished; whereas I, to thy no small confusion, have already enjoyed mine for a great number of years. But since thou art so pestilential a vice, as to poison and destroy the whole world; and as I am determined to use my utmost endeavours to extirpate thee, at least in part, I have resolved to counteract thee so that my eleven grandchildren shall take pattern after me, and thereby expose thee for what thou really art, a most wicked, desperate, and mortal enemy to the children of men.

I really cannot help admiring, that men of fine parts, and such there are, who have attained a superior rank in letters or any other profession, should not betake themselves to a regular life, when they are arrived at the age of fifty or sixty; or as soon as they find themselves attacked by any of the foregoing disorders, of which they might easily recover; whereas, by being permitted to get a-head, they become incurable. As to young men, I am no way surprised at them, since the passions being strong at that age, they are, of course, the more easily overpowered by their baneful influence. But after fifty, our lives should in every thing be governed by reason, which teaches us that the consequences of gratifying our palate and our appetites are disease and death. Were this pleasure of the palate lasting it would be some excuse; but it is so momentary that there is scarce any distinguishing between the beginning and the end of it; whereas the diseases it produces are very durable. But it must be a great contentment to a man of sober life to be able to reflect, that in the manner he lives, he is sure that what he eats will keep him in good health and be productive of no disease or infirmity.

Now I was willing to make this new addition to my treatise, founded on new reasons; few persons caring to pursue long-winded discourses;—whereas short tracts have a chance of being read by many; and I wish that many may see this addition, to the end that its utility may be more extensive.

CAUTION TO FAMILIES IN THE USE OF CHARCOAL.

EVERY family should be in possession of the fact, that to leave lighted charcoal in a room without a free current of air, will render the atmosphere of that room destructive to life. So certain are the effects of the confined fumes of charcoal, that many suicides have produced their death by such means lately in France. People cannot be too cautious; and where common coal fires are lighted in bedrooms, they ought to be carefully raked out at night, lest the accidental stoppage of the chimney might be attended with evil consequences.

The mistress of a house in Bourdeaux, a short time since, had caused a bath to be prepared; but from some circumstances was prevented taking it. Ursula Delage, a seamstress, expressed a desire to make use of it, which she easily obtained. She shut herself up in the room, where every thing was ready. She drew the water from the cylinder which served to heat it; but the vapours of the coal, which absorbed the atmospheric air, soon produced their sad effect. The poor woman had not, probably, strength to call; for, when they went into the room, she was found in the bath, drowned. A simple opening of the neck was sufficient to prove that death took place rather from the effect of the air, than from the water.

A Mrs. Mair, of Niagara in America, is said to have lately fallen a victim to an act of carelessness or ignorance, in placing in her bed-room a pan of live coals, and then lying down to sleep. This ought to serve as a warning against a too prevalent practice.

THE PROPER EXERCISE OF THE BODY.

EXERCISE is as necessary to health, as the aliment we take for our nourishment; this every body knows, but there are few indeed who can properly adapt the right sort of exercise to their own bodies. Walking at full stretch is thought by many to be an excellent exercise, but nothing can be more injurious to an invalid, particularly a dispeptic one, than fast walking. Others hope that, in producing a copious perspiration on the skin, by violent exercise, such as running, racket-playing, sparring, &c.; they secure themselves against future diseases, and cure all present; but that will be more frequently found to be the promoter of disease, than the remedy against it. Upon this subject a modern writer has given us the following valuable opinions.

MR. FORSYTH'S OPINION ON EXERCISE.

Exercise of too violent a nature, and a total want of it, are attended with equal disadvantages. Much also depends on the kinds of motion and the different postures of the body. The advantages to be derived from exercise, are increase of bodily strength, free circulation of the blood and other fluids, a due performance of the necessary secretions and excretions—the whole mass of blood is cleared and refined, so that stagnation does not take place even in the minutest vessels, and if any obstruction be beginning to take place, it will be effectually relieved by it.

We may learn from the whole structure of the human body, from the number of muscles formed for motion, and from the mechanism in the circulation of the blood itself, that exercise is enjoined by nature. Those people are the most healthy who have continual strong exercise Man in a state of health is led instinctively to muscular exercise; and children that are perfectly healthy are constantly running about, and are in almost uninterrupted motion. But, if exercise, either from its violence or too long duration, exceed the proper limits, it naturally quickens both the circulation and respiration, which may occasion the rupture of small blood vessels, abortions, inflammatory diseases, and collections of blood towards certain parts of the body, such as the heart and the brain; and disengaging by this means the saline acrimony of the fluids, the fat of the body becomes dissolved, and inflammatory fevers, discharges of blood, palsies, &c. may be the consequence.

To those unaccustomed to it, violent exercise is particularly hurtful, more so where excesses in eating or drinking have been committed. Those also whose bodies have not been sufficiently nourished by food and drink, may do themselves harm by using too much exercise. In like manner sudden transition from a state of rest to violent action, is likewise hurtful, and still more so in hot than in cold weather. After strong emotions of the mind, every species of bodily exercise ought to be avoided, till the tranquillity of the mind return with that of the body; we should, nevertheless, guard against the effects of cold, which, in such a state, might prove extremely prejudicial.

MANNER OF TAKING EXERCISE.

Three principal points in the manner of taking exercise are necessary to be attended to, viz. 1. The kind of exercise. 2. The proper time for exercise. 3. The duration of it.

With respect to the kinds of exercise, the various species of it may be divided into active and passive.—Among the first, which admit of being considerably diversified, may be enumerated, walking, running, leaping, swimming, riding, fencing, the military exercise, different sorts of athletic games, &c. Among the latter, or passive kinds of exercise, may be comprised riding in a carriage, sailing, friction, swinging, &c. The first, or active exercises, are more beneficial to youth, to the middle-aged, to the robust in general, and particularly to the corpulent, the plethoric, and to those whose evacuations are

not in a due proportion to their supplies. The second, or passive kinds of exercise, on the contrary, are better calculated for children, old, dry, and emaciated persons of a delicate and debilitated constitution, and particularly to the asthmatic and consumptive.

With regard to the time in which exercise is most proper, it, in fact, depends on such a variety of concurrent circumstances, that it does not admit of being regulated by any general rules, and must therefore be collected from the observations made on the effects of air, food, drink, &c.

With respect to the duration of exercise, there are other particulars, relative to a greater or less degree of fatigue attending the different species, and the utility of it, in certain states of the mind and body, which must determine this consideration, as well as the preceding. That exercise is to be preferred, which, with a view to brace and strengthen the body, we are most accustomed to, as any unusual one may be attended with a contrary effect. It should always be begun and finished gradually, never abruptly. Exercise in the open air has many advantages over that used within doors. To continue exercise until a profuse perspiration or a great degree of weariness take place, is far from being wholesome. In the forenoon, when the stomach is not too much distended, muscular motion is both agreeable and healthful; it strengthens digestion, and heats the body less than with a full stomach; and a good appetite after it is a proof that it has not been carried to excess. But, at the same time, it should be understood that it is not advisable to take violent exercise immediately before a meal, as digestion might therefore be retarded.—Neither should we sit down to a substantial dinner or supper immediately on returning from a fatiguing walk, at a time when the blood is heated, and the body in a state of perspiration from previous exertion, as the worst consequence may arise, especially where cooling dishes, salad, or a glass of cold drink is begun with. Exercise is also hurtful after meals, from its impeding digestion, by propelling those fluids too much towards the surface of the body, which are designed for the solution of the food in the stomach, &c.

WALKING.

Among the variety of means employed as a medium of exercise, walking, which is the most simple and salutary, as well as the most natural, is in the power of every body, and it may be adapted in its degree and duration to the various circumstances of life. By walking the appetite and perspiration are promoted; the body is sustained in an uniform temperature—the mind is enlivened with the successive change of scene—the lungs are strengthened, as well as their motions facilitated—and the rigidity and contraction of the legs, the consequence of sitting too much, is relieved; to be brief, very obstinate diseases, and the most troublesome hysteric and hypochondriacal complaints, have frequently been cured by perseverance in this species of exercise.

Pure, dry, healthy air, in an agreeable country, social and agreeable company and conversation, at any time and season of the year, except during the oppressive heat of the sun, are best calculated to produce its best effects. To walk in towns, although it gives exercise, is less conducive to health, from the atmosphere being more charged with vapours arising from impure exhalations.

The inhabitants of large towns require longer walks than country people for the preservation of their health. From the simplicity of their manners, and living in a purer atmosphere, country people derive more bodily vigour as well as greater serenity of mind, with considerably less exercise than would prove beneficial to those who reside in towns. The citizen, therefore, as well as all who lead sedentary lives, or are harassed with nervous and hypochondriacal complaints, should take daily exercise; each in a manner the most agreeable to the state of his own feelings, or as may be best adapted to circumstances and modes of life.

FRICTION

Is a remedy of some antiquity, used still in the East Indies, where it was first adopted, and latterly introduced into European practice. It is one of those salutary expedients by which the whole body receives nearly as much benefit as from a tepid bath; and which, as being in the power of every person, ought to be more frequently, as well as more generally used.

To the sedentary, the hypochondriac, and those troubled with indigestion, and who cannot afford leisure to take sufficient exercise, daily friction of the belly in particular cannot be too strongly recommended as an eligible substitute of other means, for the purpose of invigorating the system. And, although friction may not be atttended with all the advantages derived from exercise in the open air, it nevertheless produces a powerful effect on the organs of digestion; for the moderate exercise of a whole day will scarcely invigorate the abdominal vessels, and particularly the stomach, so much as the friction of these parts continued for half an hour.

This species of exercise, which admits of being performed either by the naked hand, a piece of flannel, or, by what is still better, a flesh-brush, is one of the most gentle and useful that can be adopted; and to which the whole body may be subjected, but principally the abdomen, the backbone, the arms, and legs. It clears the skin, resolves stagnating humours, promotes perspiration, strengthens the fibres, and increases the warmth and energy of the whole system; and is frequently found to be an excellent remedy in rheumatism, gout, palsy, green-sickness, &c.

With a view of strengthening the organs of digestion, friction may be performed in the morning, on an empty stomach, or in bed before getting up, by using a gentle and circular motion of the hand for about five or ten minutes at a time. In a weak state of the abdomen and the nerves in general, still more salutary effects may be derived from friction, if the stomach and abdomen be rubbed over every morning after getting up, and every night before going to bed, with a sponge, or a piece of flannel dipped in cold water. This method possesses still greater advantages over medicine taken internally, as it can be safely employed, and in cases where the alimentary canal, from its obstructed state, scarcely admits of any other remedies, while friction and the effusion of cold water generally relieve not only these obstructions, but even habitual costiveness. Motion or exercise, of whatever kind, ought only to be continued till an agreeable lassitude, and a sensible degree of perspiration be felt. If carried further than this, instead of strengthening the body it weakens it, and does harm by filling the lungs with an excess of heated blood. Neither ought the thirst generally felt after exercise to be instantly satisfied by cooling drink. If we cannot wait till the warmth be reduced to the natural temperature, some warm diluent liquors may be allowed. For the same reason, after having taken exercise, no one should rest in a cool place, or upon a green plot, or remain exposed to a current of air, but rather resort, in summer, to some spot warmed by the mild rays of the sun; or, in winter, to a moderately warm apartment, to prevent the sudden change of temperature from injuring us, by suppressing the perspiration too suddenly.

EVILS OF TIGHT STAYS.

If intemperance, that vice which destroys the morals and brings ruin upon so many families, be almost peculiar to men, women are chargeable with a fault, which from its consequences to them and to their children, is hardly less to be deplored. There was a time—it was in the days of our respected grandmothers—when the frame of the fair was unconfined by whalebone and bodice, their minds untainted by the mania for suffocating themselves with stay-tape and buckram, and a long life of health and beauty richly compensated the wealthy and the wise for their wisdom and independence. But, alas! those hal-

cyon days we fear have departed for ever, and but few beauties are now found for adoration and love, but such as resemble the baked monks of St. Bernard. Palpitations of the heart, from other causes than love; short breathing without amorous sighs; consumptions without colds; ricketty children without attention, and funerals without number, are the daily results of the prevailing habit of following the milliner's contracted patterns, and bowing at the shrine of fashion. The cook braces her waist with a leathern strap, and the chamber-maid wears a busk, to be genteel; the latter apes the manners of her mistress's daughters, whose mother girts them up in brocaded stomachers to keep them in shape; and madam wears all sorts of anti-respiratory machinery, for the sake of being fashionable.

The degree of ill-health, bodily distortion, and untimely death among females, solely originating in tight stays, is incalculable; and still the custom is pursued with the most unaccountable pertinacity; but when revolving fashion and the good sense of that most interesting portion of society, begin to consult propriety and bodily ease, young women may entertain hopes they cannot now indulge, of living to a good old age, and bringing up a family of healthy children.

QUALITIES OF THE VEGETABLE FOOD COMMONLY USED IN DIET.

BREAD.

At the head of the vegetable class stands bread,—that article of food which from general use has received the name of the "staff of life." Wheat is the grain chiefly used for the purpose, and is among the most nutritive of all the farinaceous kinds, as it contains a great deal of starch. Bread is very properly eaten with animal food to correct the disposition to putrescency; but is most expedient with such articles of diet as contain much nourishment in a small bulk, because it then serves to give the stomach a proper degree of expansion. But as it produces a slimy chyle and disposes to costiveness, it ought not to be eaten in a large quantity. To render bread easy of digestion, it ought to be well fermented and baked; and it never should be used till it has stood twenty-four hours after being taken out of the oven, otherwise it is apt to occasion various complaints in those who have weak stomachs; such as flatulence, heart-burn, watchfulness, and the like. The custom of eating butter with bread, hot from the oven, is compatible only with very strong digestive powers.

PASTRY,

especially when hot, has all the disadvantages of hot bread and butter, and even buttered toast, though the bread be stale, is scarcely inferior in its effects on a weak stomach. Dry toast with butter is by far the wholesomest breakfast. Brown wheaten bread, in which there is a good deal rye, though not so nourishing as that made of fine flour, is both palateable and wholesome, but apt to become sour on weak stomachs.

OATS, BARLEY, AND RICE.

Oats, when deprived of the husk, and particularly barley, when properly prepared, are each of them softening, and afford wholesome and cooling nourishment. Rice likewise contains a nutritious mucilage, and is less used than it deserves, both on account of its wholesomeness and economical utility. The notion of its being hurtful to the sight is a vulgar error. In some constitutions it tends to induce costiveness; but this seems to be owing chiefly to flatulence, and may be corrected by the addition of some spice; such as caraways, anniseed, and the like.

POTATOES

are an agreeable and wholesome food, and yield nearly as much nourishment as any of the roots used in diet. The farinaceous or mealy kind is in general the most easy of digestion; and they are much improved by being toasted or baked. They ought

almost always be eaten with meat, and never without salt. The salt should be boiled with them.

GREEN PEAS AND BEANS,
boiled in their fresh state, are both agreeable to the taste and wholesome; being neither so flatulent nor so difficult of digestion as in their ripe state, in which they resemble the other leguminous vegetables. French beans possess much the same qualities; but yield a more watery juice, and have a greater disposition to produce flatulence. They should be eaten with some spice.

SALADS,
being eaten raw, require good digestive powers, especially those of the cooling kind; and the addition of oil and vinegar, though qualified with mustard, hardly renders the free use of them consistent with a weak stomach.

SPINACH
affords a soft lubricating aliment, but contains little nourishment. In weak stomachs it is apt to produce acidity, and frequently a looseness. To obviate these effects, it ought always to be well beaten, and but little butter mixed with it.

ASPARAGUS
is a nourishing article of diet, and promotes the secretion of urine; but in common with the vegetable class, disposes a little to flatulence.

ARTICHOKES
resemble asparagus in their qualities, but seem to be more nutritive and less diuretic.

CABBAGES
are some of the most conspicuous plants in the garden. They do not afford much nourishment, but are an agreeable addition to animal food, and are not quite so flatulent as the common greens: they are likewise diuretic and somewhat laxative.—Cabbage has a stronger tendency to putrefaction than most other vegetable substances: and during its putrefying state, sends forth an offensive smell, much resembling that of putrid animal bodies. So far, however, from promoting a putrid disposition in the human body, it is a wholesome aliment in the true putrid scurvy.

TURNIPS
are a nutritious article of vegetable food, but not very easy of digestion, and are flatulent. This effect is in a great measure obviated by pressing the water out of them before they are eaten.

CARROTS
contain a considerable quantity of nutritious juice, but are among the most flatulent of vegetable productions.

PARSNIPS
are more nourishing and less flatulent than carrots, which they also exceed in the sweetness of their mucilage. By boiling them in two different waters they are rendered less flatulent, but their other qualities are thereby diminished in proportion.

PARSLEY
is of a stimulating and aromatic nature, well calculated to make agreeable sauces. It is also a gentle diuretic; but preferable in all its qualities when boiled.

CELERY
affords a root both wholesome and fragrant, but it is difficult of digestion in its raw state. It gives an agreeable taste to soups, and renders them diuretic.

ONIONS, GARLIC, AND SHALLOT,
are all of a stimulating nature, by which they assist digestion, dissolve slimy humours, and expel flatulency. They are, however, most suitable to persons of a cold and phlegmatic constitution.

RADISHES
of all kind, particularly the horseradish, agree with the three preceding articles in powerfully dissolving slimy humours. They excite the discharge of air lodged in the stomach.

APPLES
are a wholesome vegetable aliment,

and in many cases medicinal, particularly in diseases of the breast and complaints arising from phlegm; but in general they agree best with the stomach when eaten either roasted or boiled. The more aromatic kinds of apples are the fittest for eating raw.

PEARS

resemble much in their effects the sweet kind of apples, but have more of a laxative quality, and a greater tendency to flatulence.

CHERRIES

are in general a wholesome fruit when they agree with the stomach, and they are beneficial in many diseases, especially those of the putrid kind.

PLUMS

are nourishing, and have besides an attenuating, as well as a laxative quality; but are apt to produce flatulence. If eaten fresh, and before they are ripe, especially in large quantities, they occasion cholics and other complaints of the bowels.

PEACHES

are not of a very nourishing quality, but they abound in juice, and are serviceable in bilious complaints.

APRICOTS

are more pulpy than peaches, but are apt to ferment, and produce acidities in weak stomachs. Where they do not disagree, they are cooling, and tend likewise to correct a disposition to putrescency.

GOOSEBERRIES AND CURRANTS,

when ripe, are similar in their qualities to cherries, and when used in a green state they are agreeably cooling.

STRAWBERRIES

are an agreeable cooling aliment, and are accounted good in cases of gravel.

CUCUMBERS

are cooling and agreeable to the palate in hot weather; but to prevent them from proving hurtful to the stomach, the juice ought to be squeezed out after they are sliced, and vinegar, pepper, and salt, afterwards added.

TEA.

By some, the use of this exotic is condemned in terms the most vehement and unqualified, while others have either asserted its innocence, or gone so far as to ascribe to it salubrious, and even extraordinary virtues. The truth seems to lie between these two extremes: there is, however, an essential difference in the effects of green tea and black, or of bohea; the former of which is much more apt to affect the nerves of the stomach than the latter, more especially when drank without cream, and likewise without bread and butter. That, taken in a large quantity, or at a later hour than usual, tea often produces watchfulness, is a point that cannot be denied; but if used in moderation, and accompanied with the addition just now mentioned, it does not sensibly discover any hurtful effects, but greatly relieves an oppression of the stomach, and abates a pain of the head. It ought always to be made of a moderate degree of strength; for if too weak it certainly relaxes the stomach. As it has an astringent taste, which seems not very consistent with a relaxing power, there is ground for ascribing this effect, not so much to the herb itself, as to the hot water, which not being impregnated with a sufficient quantity of tea, to correct its own emollient tendency, produces a relaxation, unjustly imputed to some noxious quality of the plant. But tea, like every other commodity, is liable to damage, and when this happens, it may produce effects not necessarily connected with its original qualities.

COFFEE.

It is allowed that coffee promotes digestion, and exhilarates the animal spirits; besides which, various other qualities are ascribed to it, such as dispelling flatulency, removing dizziness of the head, attenuating viscid humours, increasing the circulation of the blood, and consequently perspiration; but if drank too strong, it affects the nerves, occasions watchfulness, and tremor of the hands;

though in some phlegmatic constitutions it is apt to produce sleep.—Indeed, it is to persons of that habit that coffee is well accommodated; for to people of a thin and dry habit of body it seems to be injurious. Turkey coffee is greatly preferable in flavour to that of the West Indies. Drank, only in the quantity of one dish, after dinner to promote digestion, it answers best without either sugar or milk; but if taken at other times, it should have both: or in place of the latter, rather cream, which not only improves the beverage, but tends to mitigate the effect of coffee upon the nerves.

CHOCOLATE

Is a nutritive and wholesome composition, if taken in small quantities, and not repeated too often; but is generally hurtful to the stomachs of those with whom a vegetable diet disagrees. By the addition of vanilla and other ingredients, it is made too heating, and so much affects particular constitutions as to excite nervous symptoms, especially complaints of the head.

CAUTIONARY OBSERVATIONS ON THE SEASONS OF THE YEAR.

In a climate like England, man must be exposed to more diseases than in such as serener parts of Europe afford —but this evil is not beyond the power of remedy. But little attention, indeed, is requisite to prevent disease from the change of season. No more is to be done than to guard against very sudden changes of heat and cold; by attending to clothing; to avoid excess in hot weather; and keep up the natural temperature in winter, by artificial means.

A modern writer observes, that "Autumn is the most unhealthy of the four seasons of the year, because the particles of perspiration are retained in the body in a state inclining to putrefaction. This, however, may be remedied by guarding ourselves with proper dress, and selecting a suitable diet. Too light a dress, with too thin stockings, are not advisable at this season.

"Spring and the beginning of summer are most salutary to children and young persons; while the summer and the beginning of autumn agree best with those advanced in years.—The latter end of autumn and the succeeding winter, are commonly the most healthy seasons for middle-aged people.

"Physicians have remarked that certain disorders appear and disappear according to the different seasons of the year. For instance, putrid and bilious disorders prevail in summer; inflammatory diseases in winter; and the catarrhal, mucous, and gastric, or stomach affections, in spring and autumn. Also, that in spring the blood usually circulates more freely; and hence, in all probability, arose the old practice of bleeding and purging at certain regular periods—a practice by no means unattended with danger where it is not absolutely called for, and always hurtful to people in health, who should be satisfied to remain so.

"From the natural circumstances of the vegetable kingdom being renewed in spring, and vegetation generally being more lively at this season of the year, there can be little doubt that the pure vital air is then most copiously evolved by means of the solar influence. Hence it follows that the vernal air is more salubrious than the autumnal, which abounds with corrupted and highly putrescent particles. The cold of autumn nevertheless, and the frequent winds that then prevail, are not without their use; inasmuch as they prove very efficacious agents in counteracting the baneful effects of corruption and putridity."

We would recommend to our readers the following general rules, the attention to which may save many a pound from dropping into the doctor's pocket;—for this we hope the faculty will pardon us."

RULES OF HEALTH FOR THE SEASONS.

1st. In spring, if you are delicate or subject to cold, wear a washed

leather waistcoat, with sleeves, and if you are an invalid, wear a flannel jacket under it, or line the leather with flannel.

FOR SPRING AND WINTER.

2nd. Wear cork soles.

3rd. Let your apartment be air tight, and not either over heated or too long without fire.

4th. Let in no currents of air.

5th. If you go to a ball or crowded assembly, take, on leaving it, a warm cordial, and put on an additional covering.

FOR SUMMER AND AUTUMN.

6th. Leave off the leather waistcoat, and substitute calico for it in the latter end of May.

7th. If you bathe, stay not longer than three minutes in the water.

8th. Do not cover yourself warm at night.

9th. Do not leave the windows of your bed-room open, even though it be hot weather; but lighten the bed-covering.

10th. In autumn, never go out after sun-set.

11th. Take the following medicine regularly:

OPENING MEDICINE FOR SUMMER AND AUTUMN.

Take of cream of tartar, half an oz.
Of sulphate of magnesia, an oz.
Of nitre, one drachm,
Of ether, one drachm,
Of mint water, a pint;
Mix,—and take a wine glassful or two, whenever costive.

OPENING MEDICINE FOR SPRING AND WINTER.

Take of tincture of senna, and
Tincture of rhubarb, one drachm and half,
Of tincture of cardomoms, one drachm,
Of compound spirits of lavender, twenty drops;
Mix,—and take this at a dose whenever costive.

A HINT TO INVALIDS ON THE USE OF COFFEE.

COFFEE is a beverage which has been extolled by one party, and cried down by another. BACON says, it "comforts the heart and helps digestion;" and Dr. Willes says, "being daily drank, it wonderfully clears and enlightens each part of the soul, and disperses all the clouds of every function;" and Dr. Moseley thus enlarges upon its merits as a medicine:

"The extraordinary influence which coffee, judiciously prepared, imparts to the stomach, from its tonic and invigorating qualities, is strongly exemplified by the immediate effect produced on taking it, when the stomach is overloaded with food, or nauseated with surfeit, or debilitated by intemperance. To constitutionally weak stomachs, it affords a pleasing sensation; it accelerates the process of digestion, corrects crudities, and removes cholic and flatulencies. Besides its effect in keeping up the harmony of the gastric powers, it diffuses a genial warmth that cherishes the animal spirits, and takes away the listlessness and languor which so greatly embitter the hours of nervous people, after any deviation to excess, fatigue, or irregularity.

"From the warmth and efficacy of coffee, in attenuating the viscid fluids, and increasing the vigour of the circulation, it has been used with great success in the debilitating disorders of women, (fluor albus, &c.) in dropsy, and in worm complaints; and in those comatose, anasarcous, and such other diseases, that arise from unwholesome food, want of exercise, weak fibres, and obstructed perspiration. There are few people who are not aware of its utility for the head-ache; the steam sometimes is very useful to mitigate the pains of the head. In the West Indies, where the more violent species of head-aches are more frequent and more severe than in Europe, coffee is the only medicine that affords relief. Opiates are sometimes used, but coffee has an advantage that opium does not possess; it may be taken in all conditions of the stomach, and at all times

by women, who are most subject to these complaints, as it dissipates those congestions and obstructions that are frequently the cause of the disease, and which opium is known to increase, when its temporary relief is past.

"Coffee having the admirable property of promoting perspiration, it allays thirst and checks preternatural heat.

"The great use of coffee in France is supposed to have abated the prevalency of the gravel. In the French colonies, where coffee is more used than with the English, as well as in Turkey, where it is the principal beverage; not only the gravel, but the gout, those inveterate tormentors of the human race, are scarcely known. It has been found useful in quieting the tickling vexatious cough, that often accompanies the small pox, and other eruptive fevers."

Now the fact is, that the great merit of coffee depends upon the nature of the stomach into which it is taken, and it will be found in all cases, excepting head-ache, asthma, and nervous irritability—that the good effects arise from its purgative quality. Whenever it causes a gentle laxity of the bowels, it will be found wholesome, and the reverse when it constipates. A good deal depends upon the way coffee is prepared; the English in general only drink coffee WATER, and not that essential and well prepared beverage properly called coffee. One cup of the powder should be put to two of boiling water, and only boiled once, then clearly strained.

SCARLATINA;
HOW DISTINGUISHED FROM MEASLES.

THE scarlet fever sometimes resembles the measles so exactly, as not to be easily distinguishable; though this is a matter of great importance, because the manner of cure in the two diseases is extremely different. The redness of the scarlet fever is more equally diffused than in the measles, and is not, as in the latter, in distinct spots, with the natural colour of the skin interposed. In the measles, also, the eruption rises more above the skin, and occasions a roughness to the touch, which is hardly observable in the scarlet fever, except a very little roughness sometimes on the arms. In the scarlet fever there is seldom a severe cough; the eyes do not water much, and the eye-lids are not red and swoln; all which rarely fail to attend the measles. The time of the eruption is likewise different, for it appears in the scarlet fever both in the face and arms on the second day; but in the measles it begins only about the third day to be visible on the chin and breast, and does not come to the arms and hands till the fourth or fifth day.

COMMON TYPHUS FEVER.

TYPHUS principally attacks those of weak lax fibres; those who lead a sedentary life, and neglect proper exercise; those who study much; and those who indulge freely in enervating liquors: also, those who are weakened from not using a quantity of nutritive food, proportionable to the fatigue they daily undergo: hence it is very prevalent among the poor. It is often generated in jails, hospitals, transport and prison ships, ill-constructed and crowded barracks, workhouses, and the ill-ventilated apartments of the indigent. It is also to be met with very frequently in the damp and dirty cellars of the poorer class of manufacturers in large towns.

The foulness of the air is decidedly the greatest cause of typhus, and therefore in crowded places and close apartments, fumigation should be frequently employed. To do this, put a pan of vinegar in the centre of the room, and dip a red-hot iron into it.

STROKES OF THE SUN.

THIS appellation is applied to those disorders, which arise from too violent an influence of the heat of the sun immediately upon the head.

If we consider that wood, stone, and metals, when long exposed to the sun, become very hot, and that even in temperate climates, to such a degree that they can scarcely be touched without some sensation of burning, we may easily conceive the risk a person undergoes, in having his head exposed to the same degree of heat. The blood-vessels grow dry, the blood itself becomes condensed or thickened, and a real inflammation is formed, which has often proved mortal in a very little time. It was this distemper, a stroke of the sun, which killed Manasses the husband of Judith.—"For as he was among the labourers who bound up the sheafs in the fields, the heat struck upon his head, and he was taken ill; he went to bed, and he died." The signs which precede and attend this disease are, being exposed in a place where the sun shines forth with great force and ardour; a violent head-ache, attended with a very hot and extremely dry skin: the eyes are also dry and red, being neither able to remain open, nor yet to bear the light; and sometimes there is a kind of continual and involuntary motion in the eye-lid; while some degree of relief is perceivable from the application of any cooling liquor. It often happens that some cannot possibly sleep; and at other times they have a great drowsiness, but interrupted with outrageous wakenings: there is a very strong fever, a great faintness, and a total disrelish and loathing.—Sometimes the patient is very thirsty, and at other times not at all so: and the skin of his face often looks as though it were burnt.

People may be afflicted with the disease from this cause, at two different seasons of the year; that is, either in the spring or during the very raging heats; but their events are very different. Country people and labourers are but little liable to the former. It chiefly affects the inhabitants of cities, and delicate persons, who have used very little exercise in the winter, and abound with superfluous humours. If thus circumstanced, they expose themselves to the sun, (as even in the spring he attains a considerable force,) and by the course of life they have led, their humours are already much disposed to mount to the head; while the coolness of the soil, especially when it has rained, prevents their feet from being so easily warmed; the power of the sun acts upon the head like a blister, attracting a great quantity of humours to it. This produces excruciating pains of the head, frequently accompanied with quick and violent shootings, and with pain in the eyes; notwithstanding, this degree of the malady is seldom dangerous. Country people, and even such inhabitants of cities and towns, as have not forborn to exercise themselves in winter, have no sort of dread of these strokes of the sun in the spring of the year. Its summer strokes are much more troublesome and vehement, and assault labourers and travellers, who are for a long time exposed to the fervour of it. Then it is that the disease is aggravated to its highest pitch, those who are thus struck often dying upon the spot. In hot climates this cause destroys many in the streets, and makes dreadful havoc among armies on the march, and at sieges. Some tragical effects of it, on such occasions, are seen even in the temperate countries. After having marched a whole day in the sun, a man shall fall into a lethargy, and die within some hours, with all the symptoms of raving madness. We have seen a tiler in a very hot day, complaining to his comrade of a violent pain in his head, which increased almost every moment; and at the very instant when he purposed to retire out of the sun, he sunk down dead, and fell from the house which he was slating. This same cause produces very often in the country some most dangerous phrenzies, which are called, there, hot or burning fevers. Every year furnishes but too many of them.

The vehemence of the sun is still more dangerous to those who venture to sleep exposed to it. Two mowers who fell asleep on a haycock, being wakened by some others, immediately on waking, staggered, and pronouncing a few incoherent unmeaning words,

died. When the violence of wine or spirits and that of the sun are combined, they kill very suddenly. Those affected, who escape so speedy and premature a death, are subject, for the remainder of their lives, to chronical or tedious head-aches; and to suffer some little disorder and confusion of their ideas. We have seen some cases, when after violent head-aches of some days continuance, the disease has been transferred to the eye-lids, which continued a long time red and distended, so that they could not be kept asunder or open. It has also been known, that some persons have been struck by the sun into a delirium or raving, without a fever, and without complaining of a head-ache. Sometimes blindness has been its consequence; and it is very common to see people, whose long continuance under the strong light and influence of the sun, has made such an impression upon the eyes, as presents them with different bodies flying about in the air, which distract and confuse their sight.

A man of forty-two years of age, having been exposed for several hours to the violent heat of the sun, with a very small cap or bonnet; and having passed the following night in the open air, was attacked the next day with a most severe head-ache, a burning fever, retchings to vomit, great anguish, and red and sparkling eyes. Notwithstanding the best assistance of several physicians, he became outrageous on the fifth day, and died on the ninth. Suppurated matter was discharged from his mouth, one of his nostrils, and his right ear, a few hours before his death; upon dissection a small abscess was found within the skull; and the whole brain, as well as all the membranes inclosing it, were entirely corrupted.

In very young children, who are not, or never should be, exposed for any long time to such excessive heat, (and whom a slight cause will often affect,) this malady discovers itself by a heavy deep drowsiness, which lasts for several days; also by incessant ravings mingled with rage and terror, much the same as when they are affected with violent fear; and sometimes by convulsive twitchings; by head-aches which return at certain periods; and continual vomitings.—Children, after a stroke of the sun, are often harrassed a long time with a cough.

Old men, who often expose themselves imprudently to the sun, are little apprized of all the dangers they incur by it. A person, who purposely sunned himself for a considerable time, in the clear day of an intermitting tertian fever, underwent the attack of an apoplexy, which carried him off the following day. And even when the disease may not be so speedy and violent, yet this custom of sunning in hot weather, certainly disposes to an apoplexy, and to disorders of the head. One of the slightest effects of much solar heat upon the head is, to cause a defluxion from the brain, a swelling of the glands of the neck, and a dryness of the eyes, which sometimes continues for a considerable term after it.

The effect of too much culinary or common fire, is of the same quality with that of the sun. Dr. Tissot mentions the case of a man who fell asleep with his head directly opposite, and probably very near to the fire, went off in an apoplexy during his nap.

The action of too violent a sun is not only pernicious, when it falls upon the head; but it is also hurtful to other parts; and those who continue long exposed to it, though their heads should not be affected, experience violent pains, a disagreeable sensation of heat, and a considerable stiffness in the parts that have been in some manner parched by it; as in the legs, the knees, the thighs, reins, and arms; and sometimes they prove feverish.

In contemplating the case of a patient sun-struck, as we may term it, we must endeavour to distinguish whether there may not be also some other joint causes concurring to the effect. A traveller or a labouring man, is often as much affected by the fatigue of his journey or of his labour, as he is by the influence of solar heat.

THE CURE.

It is necessary to set about the cure of this disease as soon as ever we are satisfied of its existence: for such as might have been easily preserved by an early application, are considerably endangered by a neglect of it. The method of treating this is very much the same, with that of other inflammatory diseases; that is, by bleeding, and cooling medicines of various kinds in their drinks, by bathings, and clysters.

1. If the disease be very high and urgent, a large quantity of blood should be taken away, and occasionally repeated. Lewis XIV. was bled nine times to prevent the fatality of a stroke of the sun, which he received in hunting in 1658.

2. After bleeding, the patient's legs should be plunged into warm water. This is one of the applications that affords the most speedy relief; and we have seen the head-ache go off and return again, in proportion to the repetition and the duration of these bathings of the legs. When the disorder is highly dangerous, it will be necessary to treat the patient with warm baths, in which he may sit up to his hips; and in the most dangerous degrees of it, even to bathe the whole body: but the water in this case, as well as in bathings of the feet, should be only sensibly warm; the use of hot water would be highly pernicious.

3. Clysters made from a decoction of any of the emollient herbs are also very effectual.

4. The patient must take the following mixture:

Take of infusion of senna leaves, a tea cup full,

Add of nitre, half a drachm;

Mix both.—Half to be taken immediately, and the other half in three hours.

He should also drink plentifully of almond emulsion; of lemonade; of water and vinegar, which is a very good substitute for lemonade; and of what is still more efficacious, very clear whey, with the addition of a little vinegar. These various drinks may all be taken cold; linen cloths dipped in cold water and vinegar of roses may be applied to the forehead, the temples, or all over the head, which is equivalent to every other application used upon such occasions. Those which are most valued are, the juice of purslain, of lettuce, of houseleek, and of vervain.

Cold baths have sometimes recovered persons out of such violent symptoms, from this cause, as have been almost despaired of.

A man twenty years of age, having been a very long time exposed to the scorching sun, became violently delirious, without a fever, and proved really mad. After repeated bleedings, he was thrown into a cold bath, which was also frequently repeated; pouring cold water, at the same time, upon his head. With such assistance he recovered, though very gradually.

An officer who had rode post for several days successively, in very hot weather, swooned away immediately on dismounting; from which he could not be recovered by the ordinary assistance in such cases. He was saved, however, in consequence of being plunged into a bath of freezing water. It should be observed, that in these cases the cold bath should never be recurred to without previous bleeding.

It is past doubt, that if a person stand still in the violent heat of the sun, he is more liable to be struck with it than if he walk about; and the use of white hats, or of some folds of clean white paper under a black one, may sensibly contribute to prevent any injury from the considerable heat of the sun; though it is a very incompetent defence against a violent degree of it.

The natural constitution, or even that constitution which has been formed from long custom and habit, makes a very great difference between the effects of solar heat on different persons. People insensibly accustom themselves to the impressions of it, as they do to those of all the other bodies and elements, which are continually acting upon us; and by degrees we arrive at a power of sustaining his violent heat with impu-

nity: just as others arrive at the hardiness of bearing the most rigid colds, with very little complaint or inconvenience. The human body is capable of supporting many more violences and extremes than it commonly does. Its natural force is scarcely ever ascertained among civilized nations; because their education generally tends to impair and lessen it, and always succeed in this respect. If we were inclined to consider a purely natural and simply physical man, we must look for him among savage nations; where, only, we can discover what he is able to be and to bear. We certainly could not fail of being gainers by adopting their corporeal education; neither does it seem as yet to have been infallibly demonstrated that we should be great losers in commuting our moral education for theirs.

CURE FOR EPILEPSY.

A PHYSICIAN of Triebel, near Serau, has discovered that the root of the common worm-wood is an efficacious medicine in epilepsy. He recommends gathering this plant in autumn, drying it in the shade without being washed, and not pulverizing it till it is wanted for use. It should be administered in the form of powder, as soon as signs of the approach of the fit are manifested. To an adult, it may be given in a dose of from fifty to seventy grains in a warm liquid. After the patient has taken the medicine, he should go to bed and cover himself well up, and not remove from it till the perspiration has ceased.

CASE OF DIABETES, OR IMMODERATE DISCHARGE OF URINE.

BY MR. ADAMS OF NEW YORK.

THE great and immediate good effects resulting from the curative means used in this case, offer a sufficient apology for giving publicity to an outline of it. I very well know that other physicians have pursued a similar course with similar results; and that Dr. Henry Marsh of Dublin, is particularly entitled to great credit, no less for his philosophical views, than his scientific and successful treatment of this obstinate malady. The subject of the present case was a young man about eighteen years of age. I was first summoned to visit him on the 25th of August, 1824. He then stated that he had laboured under the disease four months, and that it arose immediately after four or five days' exposure to the cold storms and atmospheric vicissitudes of the preceding April. The following were the most prominent and distinguishing characteristics of his complaint:—extreme listlessness; great prostration of strength; thirst; voracious appetite; swelled stomach; obstinate constipation; extreme emaciation; daily excretion of from sixteen to twenty-one pints of sweetish urine, depositing a coarse brown sediment during evaporation; a sensation of coldness on the surface; a total loss of perspiration; a yellow and dry skin, apparently adherent to the subjacent muscles.

The following treatment was adopted. A strong purge every evening, until it produced five or six daily motions; the use of the vapour bath once or twice daily; frictions with emollient liniment, and the internal exhibition of large quantities of opium, combined with Dover's powders. These means, conjoined with an animal diet and active exercise, were continued until the 1st of December, when the disease seemed wholly eradicated. The patient was then directed to discontinue the use of medicine, and depend on manual labour for the maintenance of a constant and equable perspiration, and equality of those vital forces, that had previously been concentrated in the nephritic secreting system. The patient has since had no recurrence of his complaint, and enjoys constant and vigorous health. The writer feels assured, that this case, equally with those of Dr. Marsh, amply illustrates the controlling influence, by means

of perspiration, exerted by the cutaneous membrane over this disease, and demonstrates the imperious necessity of administering internal remedies, and of applying external remedial agents that have a direct relation with the diseased state of this organ.

THE VAPOUR BATH.

CONSIDERABLY more heat can be endured in the form of vapour than of water. The advantages thus obtained are greater when a powerful stimulus is required; and it consequently renders perspiration more copious and free.

The baths of the ancients were mostly of this kind, as warm water was only poured on at intervals, and the bather was principally exposed to the vapour arising from it.

The baths of the Turks, Russians, Swedes, and native Americans, are of this kind; and probably the stimulant, as well as the relaxant effects are most effectually produced from them.

We think we cannot gratify our readers more than by presenting them with a description of these baths, as related by various travellers of great credit and respectability.

Savary gives the following interesting account of the baths at Cairo:—

"The first apartment, or undressing chamber, is a lofty and spacious hall, which rises in the form of a rotunda, and is open at the top for admitting a free circulation of the air. A spacious estrade, or raised floor, covered with a carpet and divided into compartments goes round it; on which the person who bathes lays his clothes. In the middle of the building a *jet d'eau* spouts up from a basin and agreeably entertains the eye. When you are undressed, you tie a napkin round your loins, put on a pair of sandals, and then enter a narrow passage, where you begin to feel the heat. The door is shut. At a distance of twenty paces you open a second door and proceed along a passage which forms a right angle with the former; here the heat increases. Those who are afraid of suddenly exposing themselves to a stronger degree of it, stop in a marble hall in the way to the bath properly so called.

"The bath itself is a spacious and vaulted apartment, paved and lined with marble, around which are four closets. The vapour, incessantly rising from a fountain and cistern of hot water, mixes itself with the burning perfumes, when perfumes are desired by the persons who bathe. The bathers, extended on a cloth that is spread out, and with the head supported by a small cushion, stretch themselves freely in every posture, whilst they are enveloped with clouds of odoriferous vapours which penetrate into all their pores. After reposing there for some time, till a gentle moisture is perceived over the whole body, a servant presses you gently, and turns you over; when the limbs are become supple and flexible, he makes all the joints crack without any difficulty. He masses, i. e. delicately touches and seems to knead the flesh without making you feel the slightest pain. When this operation is finished, he puts on a glove covered with a piece of coarse stuff, and rubs you for a long time; and during this operation, he detaches from the body, running with sweat, a scurf or sort of small scales, and even the imperceptible filth that stops the pores. The skin becomes soft and smooth like satin. He then conducts you into a closet, pours a lather of perfumed soap upon your head and then withdraws. The closet is furnished with two cocks,—the one for cold the other for hot water.

"After having washed in this apartment, the servant brings a depilatory pomatum, composed of the mineral called "rusma," which is of a deep brown colour, and which the Egyptians burn lightly, knead with water, and mix with half the quantity of slaked lime. This greyish paste, applied to the hair, makes it fall off in a little time, and it is generally used, both by men and women, in Egypt. After being well washed and purified, you are wrapped up in hot linen, and conducted through the

windings that lead to the outer apartments; and by this gradual transition from heat to cold, or by stopping for some time in the hall near the stove, no inconvenience arises from the use of the bath.

"On arriving at the estrade, you find a bed prepared for you; and as soon as you are laid down, a child presses every part of your body with its delicate fingers, in order to dry you thoroughly. Here you change linen a second time, and the child gently grates the callosity of your feet with pummice stone; he then brings you a pipe and Mocha coffee.

"By these baths, the use of which the ancients strongly recommended, and which are still the delight of the Egyptians, they prevent and dispel rheumatism, catarrhs, and such cutaneous disorders as are produced by want of perspiration. Thus the blood is made to circulate with freedom; the whole body acquires a suppleness and lightness; and the spirits gain a vivacity and flow, which are not experienced in an equal degree by those who do not pay an equal regard to cleanliness.

"The women are particularly fond of these baths, and frequent them at least once a week.—After undergoing the usual preparations, they wash their bodies, and more especially their heads, with rose water.—Here the female hair-dressers form their long black hair into tresses, to which they apply costly essences instead of powder and pomatum.—Here they blacken the edges of their eye-lids, and lengthen their eye-brows with "cohel," or a preparation of tin burnt with gall-nuts.—Here also they stain the finger and toe nails with "henne," which gives them a golden colour. The linen and clothing they use is passed through the sweet steam of the wood of aloes. The days appropriated to the bath are festivals for Egyptian women; and on this occasion they pay great attention to the ornaments of their dress, as well as to the cleanliness of their persons.

"Baths similar to that above described, though differing in size, are constructed in all the principal towns of Egypt. The necessity of cleanliness in the eastern climates, where perspiration is so copious, has rendered baths indispensable. The comfort they produce preserves the use of them —and Mahomet, who knew their utility, has reinforced the practice of ablution and bathing by express precept."—SAVARY'S TRAVELS, vol. 1, p. 146.

The following account of the Russian adoption of warm vapour bathing is given by a respectable traveller.

"The universal prevalence of bathing in steam is remarkable. Towards the end of the week the Mougik complains that his skin begins to itch, and whether it is summer or winter, his first leisure hour, if he possesses but three copecks, is employed in the bath. The process here undergone has been often described; to judge from its effect on myself, I can only say, that being as in general at 120°. Fahrenheit or 130°. Fahrenheit, it is far from affording to a stranger any very great gratification. At first, it is true, a luxurious sense of lassitude comes on, but this is succeeded by an oppressed debility, which continues so long that I should be very unwilling to undergo its discipline a second time: the body is completely exhausted by the strong temporary stimulus which is applied. Its power, indeed, may be imagined from the well known fact, that it is the common custom with the lower classes of people to roll in the snow in winter time, immediately on leaving the bath: nor is the sudden change ever succeeded by illness, or productive of the least inconvenience.

"The heat of the atmosphere was in this month very great, the mercury standing at upwards of 80°. Fahrenheit in the shade; and this sort, therefore, of vapour-washing, which is so universal in hot countries, seemed nothing more than the natural course of things. But to what can we ascribe its adoption in the northern districts: in Finland, in Ingria, at Archangel, where it is as constantly applied during the short period of their summer? Probably, like many other customs of the Russian nation, the use of the

bath was borrowed from the habits of their eastern or southern neighbours, and thence has been gradually extended by fashion and imitation over the whole empire."—JAMES's Travels in Russia, Sweden, and Poland.

Mr. James admits the use of the vapour washing in the summer and during the great heats, but is at a loss to account for the advantages of it in the winter season. A free perspiration, or at least a brisk circulation in the superficial vessels, is as necessary in winter as in summer, for the chilling air tends to repel the fluids from the skin inwards. Hence the prevailing diseases of that season are occasioned by these causes; and perhaps the best means of putting a stop to the very buddings of fever or inflammation, is to restore the circulation and secretion of the skin.

The benefit afforded by vapour bathing may be very principally accounted for from the high temperature that can be endured of steam, perhaps nearly 150°. and more heat is also given out during the condensation of heat into water;—the latter fluid requiring less heat in its composition, it is distributed freely during the change of form.

Amongst the Turks, every village has its public bagnio, for the accommodation of the poor. It consists of two chambers that communicate, and are lighted by a small cupola: under the farthermost is a subterranean fire that heats a cauldron covered by a marble floor. These baths are heated a day before they are used, and water is thrown down on the floor, which is so hot that those who enter the room are obliged to put on high sandals of wood to avoid burning their feet. A sudden perspiration flows from every pore in an instant; but notwithstanding the great heat, the women will remain in them several hours, and visit them frequently.

The mode of vapour bathing in Russia and Finland is more simple. The inside of the hut is heated by a furnace, which is lined with stones that become red hot. The visitors first expose themselves naked to the dry heat of the air, and afterwards throw down water on the hot flints, from whence issues a copious steam that envelopes them; and the water is renewed as the tepid mist clears away. The benches rise one above another; and as the hottest vapours ascend highest, they mount up to the degree of heat that they are inclined for. The plentiful perspiration that bedews the bather, they keep up by friction with the downy leaves of the lime tree, covered with soap. These operations being finished, they pour buckets of cold water over their heads, or dip into an adjoining pond, and oftentimes divert themselves by rolling in the snow.

Various contrivances have been devised to simplify the application of vapour to the body.

A vapour bath may be made of a common tin slipper bathing machine, lining it with a blanket, and the patient sitting in it is also to be enveloped in one. Hot vapour from a tea-kettle conveyed by a leaden pipe, is to be admitted to the air within the slipper, and the purpose is accomplished. A patient lying in bed may have vapour communicated in a similar manner, by means of a machine composed of a semicircular frame of wood placed over his body, which is to be covered with a blanket to retain the steam.*

The Hon. Basil Cochrane has endeavoured with a laudable industry, to introduce vapour bathing among us. He recommends it from his personal experience of its great efficacy when in India, and states as a motive for its use, that "nine-tenths of the complaints with which Europeans are afflicted in India, originate in checked perspiration;" and he believes that in England we greatly suffer from the same evil.

We cannot finish our observations on the vapour bath better, than by quoting the judicious practical remarks of this gentleman, who, with a very uncommon benevolence, erected

* A cheap method of constructing baths, by Professor Playfair.

vapour baths at his own house for the use of the diseased poor.

"In the course of my experiments," says Mr. Cochrane, "in the application of vapour, I have seen inveterate catarrhs, chronic rheumatisms, contraction of the muscles, and stiff joints, give way to its influence; and two cases of gout have met a cure. In one instance, calculi have been brought away in great quantity, and without any of that agony suffered by the patient on former occasions. In using the bath I have observed, that the periods most proper are before breakfast, or between ten in the morning and three in the afternoon; as after repletion the patient has generally complained of more heat and languor than at other times. In the early stage of experiment, it was usual to allow the patient to remain in the bath from fifteen to twenty minutes; but latterly I have found from five to ten minutes sufficient, as a profuse perspiration is induced in the course of three minutes.

"In cases that require friction, my servants perform that operation according to the mode adopted in India, there called shampooing, and which may be learned by any person with great ease in an hour. Having touched on shampooing, I shall trespass to remark, that it is capable of more beneficial effects than will be imagined, upon a slight consideration of a mean so seemingly trifling. The Indians hold it in the highest estimation, and resort to it continually, both as a luxury and as a remedy. After much fatigue, and in excessive lassitude, it is the first of restoratives; and it is excellent in disposing to sleep, having frequently succeeded after opiates had failed. These are facts to which I can speak from my own experience, and from what I have witnessed in others."*

* Hon. Basil Cochrane's Essay on the Vapour Bath, and the apparatus connected with it.

EARLY RISING.

To rise early is so truly the one thing needful above all, to all who are candidates for either of those capital prizes—health, wealth, or wisdom,—that it is the only sure foundation for securing any chance of obtaining either of them.

"He that would thrive
Must rise by Five;—
He that has thriven
May lay till Seven."

Instances may be found, but very seldom, of persons who have sat up late becoming wealthy, but they have paid for it the unwise price of their health. You cannot remember one solitary example of a sluggard having ever obtained one of these blessings of life. "Shake off dull sloth, and early rise." There is no time spent so stupidly as that which inconsiderate people pass in a morning between sleeping and waking. He who is awake may be at work or at play; he who is asleep is receiving the refreshment necessary to fit him for action; but the hours spent in dozing and slumbering are wasted, without either pleasure or profit. The sooner you leave your bed, the seldomer you will be confined to it. When old people have been examined in order to ascertain the cause of their longevity, they have uniformly agreed in one thing only, that they "all went to bed and all rose early."

AN EARNEST EXHORTATION;

WHEREIN THE AUTHOR URGES THE NECESSITY OF EMBRACING A SOBER AND REGULAR LIFE, IN ORDER TO ATTAIN OLD AGE.

BY LEWIS CORNARO.

CHAPTER III.

OF THE BIRTH AND DEATH OF MAN.

NOT to be wanting in my duty, that duty incumbent upon every man, and not to lose at the same time, the satisfaction I feel in being useful to others, I have resolved to take up my pen, and to inform those, who, for want of

conversing with me, are strangers to what those know and see with whom I have the pleasure of being acquainted. But, as certain things may appear, to some persons, scarcely credible, nay, impossible, though actually true, I shall not fail to relate them, for the benefit of the public. Wherefore, I say, being, God be praised, arrived at my ninety-fifth year, and still finding myself sound and hearty, content and cheerful, I never cease thanking the Divine Majesty for so great a blessing, considering the usual fate of other old men. These scarcely attain the age of seventy, without losing their health and spirits, growing melancholy and peevish, continually haunted by the thoughts of death; apprehending their last hour from one day to another, so that it is impossible to drive such thoughts out of their minds; whereas such things give me not the least uneasiness; for indeed I cannot at all make them the object of my attention, as I shall hereafter more plainly relate. I shall, besides, demonstrate the certainty I enjoy of living to a hundred. But to render this dissertation more methodical, I shall begin by considering man at his birth; and from thence accompany him, through every stage of life, to his grave.

I therefore say, that some come into the world with the stamina of life so weak, that they live but a few days, or months, or years, and it cannot be clearly known, to what such shortness of life is owing; whether to some defect in the father or mother in begetting them; or to the revolutions of the heavens; or to the defect of nature, subject as she is to the celestial influence. For I could never bring myself to believe that nature, the common parent of all, should be partial to any of her children. Therefore, as we cannot assign the causes, we must be content with reasoning from the effects, such as they daily appear to our view.

Others are born sound, and indeed lively; but, notwithstanding, with a poor, weakly constitution: and of these, some live to the age of ten; others to twenty; others to thirty and forty; yet they seldom live to be old men. Others again, bring into the world a perfect constitution, and live to an old age: but it is generally, as I have already said, an old age full of sickness and sorrow; for which they have to thank themselves; because they most unreasonably presume on the goodness of their constitutions; and cannot by any means be brought to depart, when grown old, from the mode of life they pursued in their younger days; as if they still retained all their primitive vigour. Nay, they intend to live as irregularly when past the meridian of life, as they did all the time of their youth; thinking they shall never grow old, nor their constitutions be ever impaired. Neither do they consider that the stomach has lost its natural heat; and that they should on that account pay a greater regard to the quality of what they eat and what wines they drink; and likewise to the quantity of each, which they ought to lessen: whereas on the contrary, they are for increasing it; saying, that as we lose our health and vigour by growing old, we should endeavour to repair the loss by increasing the quantity of our food, since it is by sustenance that we are to preserve the individual.

In this, nevertheless, they are mistaken, since as the natural heat lessens as a man grows in years, he should diminish the quantity of his meat and drink; nature, especially at that period, being content with little. Nay, though they have every reason to believe this to be the case, they are so obstinate as to think otherwise; and still follow their usual disorderly life. But were they to relinquish it in due time, and betake themselves to a regular and sober course, they would not grow infirm in their old age, but would continue, as I am, strong and hearty, considering how good and perfect a constitution it has pleased the Almighty to bestow upon them, and would live to the age of a hundred and twenty. This has been the case of others, who, as we read in many authors, have lived

a sober life, and of course were born with this perfect constitution; and had it been my lot to enjoy such a constitution, I should make no doubt of attaining the same age. But as I was born with a feeble stamina, I am afraid I shall not outlive a hundred. Were others too, who are also born with an infirm constitution, to betake themselves to a regular life as I have done, they would attain the age of a hundred and upwards, as shall be my case.

And this certainty of being able to live to a great age is in my opinion a great advantage, and highly to be valued; none being sure to live even a single hour, except such as adhere to the rules of temperance. This security of life is built on good and truly natural reasons which can never fail; it being impossible in the nature of things, that he who leads a sober and regular life, should breed any sickness or die an unnatural death, before the time at which it is absolutely impossible he should live.—But sooner he cannot die, as a sober life has the virtue to remove all the usual causes of sickness, and sickness cannot happen without a cause; which cause being removed, sickness is likewise removed; and sickness being removed, an untimely and violent death must be prevented.

And there is no doubt that temperance has the virtue and efficacy to remove such causes; for since health and sickness, life and death, depend on the good or bad quality of the humours, temperance corrects their viciousness and renders them perfect, being possessed of the natural power of making them unite and bind together, so as to render them inseparable, and incapable of altering or fermenting; circumstances which engender cruel fevers and end in death. It is true indeed, and it would be a folly to deny it, that let our humours be originally ever so good, time, which consumes every thing, cannot fail to consume and exhaust them; and that man, as soon as that happens, must die of a natural death; but yet without sickness, as will be my case, who shall die at my appointed time, when these humours shall be consumed, which they are not at present. Nay, they are still perfect; nor is it possible they should be otherwise in my present condition, when I find myself hearty and content, eating with a good appetite and sleeping soundly. Moreover, all my senses are as good as ever, and in the highest perfection; my understanding clearer and brighter than ever; my judgment sound; my memory tenacious; my spirits good; and my voice, the first thing that is apt to fail us, grown so strong and sonorous, that I cannot help chanting out aloud my prayers morning and night, instead of whispering and muttering them to myself, as was formerly my custom.

These are all so many true and sure signs and tokens that my humours are good, and cannot waste but with time, as all those who converse with me conclude. O, how glorious this life of mine is likely to be, replete with all the felicities which man can enjoy on this side of the grave! It is entirely exempt from that sensual brutality which age has enabled my better reason to banish; because, where reason resides, there is no room for sensuality nor its bitter fruits, the passions and perturbations of the mind, with a train of disagreeable apprehensions. Nor yet can the thoughts of death find room in my mind, as I have no sensuality to nourish such thoughts. Neither can the death of grandchildren and other relations and friends make any impression on me but for a moment or two, and then it is over. Still less am I liable to be cast down by losses in point of fortune, as many have seen to their no small surprise. And this is a happiness not be expected by any but such as attain old age by sobriety, and not in consequence of a strong constitution; and such may moreover expect to spend their days happily, as I do mine, in a perpetual round of amusement and pleasure. And how is it possible a man should not enjoy himself, who meets with no crosses or disappointments in his old age, such as youth is constantly plagued with, and from which,

as I shall presently show, I have the happiness of being exempt.

The first of these is to do service to my country. O, what a glorious amusement! in which I find infinite delight, as I thereby show her the means of improving her important estuary or harbour, beyond the possibility of its filling for thousands of years to come; so as to secure to Venice her surprising and miraculous title of a maiden city, as she really is; and the only one in the whole world. She will moreover thereby add to her great and excellent surname of Queen of the Sea! Such is my amusement; and nothing is wanting to make it complete. Another amusement of mine is that of showing this maid and queen in what manner she may abound with provisions, by improving large tracts of land, as well marshes as barren sands, to great profit. A third amusement, and an amusement also without any alloy, is that of showing how Venice, though already so strong as to be in a manner impregnable, may be rendered still stronger; and though extremely beautiful, may still increase its beauty; though rich, may acquire more wealth; and may be made to enjoy better air, though her's is excellent. These three amusements, all arising from the idea of public utility, I enjoy in the highest degree. And who can say that they admit of any alloy, as in fact they do not? Another comfort I enjoy is, that having lost a considerable portion of my income, of which my grandchildren have been unfortunately robbed, I, by mere force of thought, which never sleeps, and without any fatigue of body, and very little of mind, have found a true and infallible method for repairing such loss more than double, by a judicious use of that most commendable of arts—agriculture. Another comfort I still enjoy, is to think that my Treatise on Temperance, which I wrote in order to be useful to others, is really so, as many assure me by word of mouth, mentioning that it has proved extremely useful to them, as it in fact appears to have been; whilst others inform me by letter, that under God they are indebted to me for life. Still another comfort I enjoy, is that of being able to write with my own hand; for I write enough to be of service to others, both on architecture and agriculture. I likewise enjoy another satisfaction, which is that of conversing with men of bright parts and superior understanding, from whom, even at this advanced period of life, I learn something. What a comfort is this, that old as I am, I should be able, without the least fatigue, to study the most important, sublime, and difficult subjects!

I must further add, also, though it may appear impossible to some, and may be so in some measure, that at this age I enjoy, at once, two lives; one terrestrial, which I possess in fact; the other celestial, which I possess in thought; and this thought is equal to actual enjoyment, when founded upon things we are sure to attain, as I am sure to attain that celestial life, through the infinite goodness and mercy of God. Thus I enjoy this terrestrial life in consequence of my sobriety and temperance, virtues so agreeable to the Deity; and I enjoy, by the grace of the same Divine Majesty, the celestial, which he makes me anticipate in thought; a thought so lively, as to fix me entirely on this object, the fruition of which I hold and affirm to be of the utmost certainty. And I hold that dying, in the manner I expect, is not really death, but a passage of the soul from this earthly life to a celestial, immortal, and infinitely perfect existence. Neither can it be otherwise; and this thought is so pleasing, so superlatively sublime, that it can no longer stoop to low and worldly objects, such as the death of this body, being entirely taken up with the happiness of living a celestial and divine life; whence it is, that I enjoy two lives. Nor can the terminating of so high a gratification, which I enjoy in this life, give me any concern; it rather affords me infinite pleasure, as it will be only to make room for another glorious and immortal life.

Now, is it possible that any one should grow tired of so great a com-

fort and blessing, as this which I really enjoy; and which every one else might enjoy, by leading the life I have led? an example which every one has it in his power to follow; for I am but a mere man, and no saint; a servant to God, to whom so regular a life is extremely agreeable.

And whereas many embrace a spiritual and contemplative life, which is holy and commendable, the chief employment of those who lead it being to celebrate the praises of God. Oh, that they would likewise, betake themselves entirely to a regular and sober life! how much more agreeable would they render themselves in the sight of God! What a much greater honour and ornament would they be to the world! They would then be considered as saints indeed, upon earth, as those primitive Christians were held, who joined sobriety to so recluse a life. By living like them, to the age of a hundred and twenty, they might expect, by the power of God, to work numberless miracles; and, besides, they would enjoy constant health and spirits, and be always happy within themselves; whereas, they are now mostly infirm, melancholy, and dissatisfied. Now, as some of these people think, these are trials sent them by God Almighty, with a view of promoting their salvation, that they may do penance, in this life, for their past errors, I cannot help saying, that, in my opinion, they are greatly mistaken. For I can by no means believe, that it is agreeable to the Deity, that man, his favourite creature, should live infirm, melancholy, and dissatisfied; but rather enjoy good health and spirits, and be always content within himself. In this manner did the holy fathers live, and, by such a conduct did they daily render themselves more acceptable to the Divine Majesty, so as to work the great and surprising miracles we read of in history. How beautiful, how glorious a scene should we then behold! far more beautiful than in those ancient times, because we now abound with so many religious orders and monasteries, which did not then exist; and were the members of these communities to lead a temperate life, we should then behold such a number of venerable old men as would create surprise. Nor would they trespass against their rules: they would rather improve upon them; since every religious community allows its subjects bread, wine, and sometimes eggs, (some of them allow meat,) besides soups made with vegetables, salads, fruit, and other cakes, things which disagree with them, and even shorten their lives. But as they are allowed such things by their rules, they freely make use of them: thinking, perhaps, that it would be wrong to abstain from them, whereas it would not. It would rather be commendable, if, after the age of thirty, they abstained from such food, and confined themselves to bread, wine, broths, and eggs; for this is the true method of preserving men of a bad constitution; and it is a life of more indulgence than that led by the holy fathers of the desert, who subsisted entirely on wild fruits and roots, and drank nothing but pure water; and, nevertheless, lived as I have already mentioned, in good health and spirits, and always happy within themselves. Were those of our days to do the same, they would, like them, find the road to heaven much easier; for it is always open to every faithful Christian, as our Saviour Jesus Christ left it, when he came down upon earth to shed his precious blood, in order to deliver us from the tyranny of the devil; and all through his immense goodness and loving-kindness to save mankind.

So that, to make an end of this discourse, I say, since length of days abounds with so many favours and blessings, and I happen to be one of those who are arrived at that state, I cannot (as I would not willingly want charity) but give testimony in favour of it, and solemnly assure all mankind, that I really enjoy a great deal more than what I now mention; and that I have no other reason for writing, but that of demonstrating the great advantages which arise from longevity, to the end that their conviction may induce them to observe these excellent rules of temperance and sobriety;

and, therefore, I never cease to raise my voice, crying out to you, My friends, may your days be long, and may you continue to improve in every virtue!

MANNER IN WHICH THE RUSSIANS TREAT PERSONS AFFECTED BY THE FUMES OF BURNING CHARCOAL.

RUSSIAN houses are heated by means of ovens, and the manner of heating them is as follows: a number of billets of wood are placed in the *peech* or stove, and allowed to burn till they fall in a mass of bright red cinders; then the vent above is shut up, and likewise the door of the peech, which opens into the room, in order to concentrate the heat; this makes the tiles, of which the *peech* is composed, as hot as you desire, and sufficiently warms the apartment; but sometimes a servant is so negligent as to shut up the *peech* or oven before the wood is sufficiently burnt; for the red cinders should be turned over from time to time, to see that no bit of wood remains of a blackish colour, but that the whole mass is of an uniform glare (as if almost transparent) before the openings are shut, else the *ugar* or vapour is sure to succeed to mismanagement of this sort, and its effects are as follow:

If a person lays himself down to sleep in the room, exposed to the influence of this vapour, he falls into so sound a sleep, that it is difficult to awake him, but he feels (or is insensible of) nothing. There is no spasm excited in the trachea or lungs, to rouse him, nor does the breathing, by all accounts, seem to be particularly affected; in short, there is no one symptom of suffocation; but towards the end of the catastrophe, a sort of groaning is heard by the people in the next room, which brings them sometimes to the relief of the sufferer. If a person only sits down in the room, without intention to sleep, he is after some time seized with a drowsiness and inclination to vomit. However, this last symptom seldom affects a Russian, it is chiefly foreigners, who are awakened to their dangers by a nausea; but the natives, in common with strangers, perceive a dull pain in their heads, and if they do not remove directly, which they are often too sleepy to do, are soon deprived of sense and the power of motion, insomuch, that if no person fortunately discovers them within an hour, after this worst stage, they are irrecoverably lost; for the Russians say, that they do not succeed in restoring to life those who have lain more than an hour in a state of insensibility.

The recovery is always attempted, and often effected, in this manner: they carry the patient immediately out of doors, and lay him upon the snow, with nothing upon him but a shirt and linen drawers. His stomach and temples are then *well rubbed with snow, and cold water or milk is poured down his throat.* This friction is continued with fresh snow until the livid hue which the body had when brought out, is changed to its natural colour, and life renewed; then they cure the violent head-ache, which remains, *by binding on the forehead a cataplasm of black rye bread and vinegar.*

In this manner the unhappy man is perfectly restored, without blowing up the lungs, as is necessary in the case of drowned persons; on the contrary, they begin to play of themselves as soon as the surcharge of phlogiston makes its escape from the body. It is well worthy of observation, how diametrically opposite the modes are of restoring to life those who are deprived of it *by water*, and those who have lost it by the *fumes of charcoal;* the one consisting in the internal and external application of heat, and the other in that of cold. It may be alleged, that the stimulus of the cold produces heat, and the fact seems confirmed by the Russian method of restoring circulation in a frozen limb by means of friction with snow. But what is most singular in the case of people apparently deprived of life in the manner treated of, is, that the body is much warmer when

brought out of the room than at the instant life is restored, and that they awake cold and shivering. The colour of the body is also changed from a livid red to its natural complexion, which, together with some other circumstances, would almost lead us to suspect, that they are restored to life by the snow and cold water freeing them from the load of phlogiston with which the system seems to be replete; for although the first application of cold water to the human body produces heat, yet, if often repeated in a very cold atmosphere, it then cools instead of continuing to heat, just as the cold bath does when a person remains too long in it.

THE BILIOUS CHOLIC.

THE bilious cholic discovers itself by very acute pains, but is seldom accompanied by a fever; at least not until it has lasted a day or two: and even if there should be some degree of fever, yet the pulse, though quick, is neither strong nor hard; the belly is neither tense nor stretched as it were, nor burning hot as in inflammatory cholic; the urine comes away with more ease, and is less high coloured. Nevertheless the inward heat and thirst are considerable; the taste is bitter; the vomiting or purging, when either of them attend it, discharges a yellowish humour or excrement; and the patient's head is often dizzy.

The method of curing this is,

1. By injecting clysters of whey and honey, or what is still better the following

SOOTHING INJECTION FOR BILIOUS CHOLIC.

Take two handfulls of mallow leaves and flowers; cut them small and pour a pint of boiling water upon them. After standing some time strain it, adding one ounce of honey to it. If mallows cannot be procured, lettuce or spinach will do instead.

ANOTHER.

Take half a pint of warm water, throw into it a little camomile-flowers, then strain off, and add an ounce of of olive or castor oil. This is good in most cases where injections are necessary.

2. By making the sick drink considerably of whey.

3. By giving every hour half a drachm of cream of tartar.

4. Fomentations of warm water and half-baths are also very proper.

5. If the pains be sharp and violent, in a robust strong person, and the pulse be strong and tense, bleeding should be used to prevent an inflammation.

6. No other nourishment should be given, except some thin soups, made from vegetables, and particularly from sorrel.

7. After plentiful dilution with the proper drink, if no fever supervene; if the pains still continue, and the patient discharge but little by stool, he should take a moderate purge. The following is a proper one.

PURGATIVE MIXTURE.

Take an ounce Epsom salts,
Two ounces of tamarinds;
Pour on them eight ounces of boiling water; strain off, and give one half at a dose, the other half in two hours after.

This bilious cholic is habitual to many persons, and may be prevented or greatly mitigated by submitting to a moderate retrenchment in the article of flesh-meat; and by avoiding heating and greasy food, and the use of milk, and by taking eight or ten grains of rhubarb daily; or the following draught between breakfast and dinner:

APERIENT DRAUGHT.

Take of tincture of rhubarb, two drachms,
Of Daffy's elixir, one drachm;
Mix.

THE GOITRES AND IDIOTS OF THE VALLAIS.

As *Guttural Protuberances* are by no means unfrequent in England, we shall present our readers with a late celebrated traveller's remarks upon

that disorder, as he observed it in the Vallais of Switzerland.

"Before I take my leave of the Vallais," says Mr. Coxe, "you will probably expect, that, according to my promise, I should send you some information concerning the causes which are supposed to occasion, or to contribute to render goïtrous persons and idiots so remarkably common in many parts of this country. I have indeed made all possible researches, in order to gain some satisfactory intelligence upon so curious a subject; but I have the mortification to add, that the very faint lights I have been able to obtain have left me almost as much in the dark as I was before.

"I shall begin, however, with an undoubted fact; the Vallaisans are not all equally subject to the above infirmities; but those chiefly who live in or near the lower parts of the Vallais, as about Sider, Sion, Martinac, &c. The people in general are a robust and hardy race, as well those who dwell in the places last mentioned, as those who inhabit the more mountainous parts of the country.

"It is a common notion, that snow water occasions goïtres: but I have some reason to think the contrary. For I have been at several places where the inhabitants drink no other water than what they procure from those rivers and torrents, which descend from the glaciers; and yet are not subject to this malady; indeed I have been assured, though I will not venture to answer for the truth of the assertion, that snow-water, so far from being a cause, is esteemed even a preventive. The air of the mountains is also a strong preservative against them; and goïtres have been known *to diminish upon elevated situations;* whereas, in the lower parts of the Vallais, if this excrescence once begins to shew itself, it always continues to increase. Some districts are more particularly remarkable for this disorder than others; thus, in a little village, near Sion, almost all the inhabitants are goïtrous.

"From these facts it seems reasonable to conclude, that goïtres are derived from certain local circumstances; and that several causes, both physical and moral, may jointly contribute to their production. Among the physical, *bad water* and *bad air*, may, perhaps, be justly assigned, but chiefly the former; which near the particular districts above-mentioned, is stagnant, and loaded with particles of *tufo*. The torrents also, which are formed by the melting of the snows, dissolve this substance, or similar ones, in their passage; and probably this circumstance has given rise to the notion, that snow-water, simply in itself, occasions these goïtres; but wherever it has that effect, it is strongly *impregnated with certain stony particles*. I was shewn several pools of these stagnant waters, which I should have supposed no human being to have been capable of drinking.

"Among the moral causes, which may be supposed to concur in occasioning these *guttural protuberances*, the inconceivable laziness and negligence of these people, may be mentioned. For they rarely take the least precaution to guard against or to remedy the ill effects of their unwholesome water: indolently acquiescing in its consequences, they use no sort of means either to prevent or remove them.

"The same causes, which seem to produce the goïtres, probable operate in the case of *idiots;* for wherever in this country the former abound, the latter are also in great numbers. Such indeed is the nice and inexplicable connexion between our bodies and our minds, that the one ever sympathises with the other: we see that the body suffers, whenever the mind is deeply affected by any strong impression of melancholy or distress; and in return, that whenever the corporeal frame is impaired and shattered by long pain and sickness, the understanding also is equally out of order. Hence it is by no means an ill-grounded conjecture, that, in the case before us, the same causes which affect the body, should also affect the mind; or in other words, that the same waters, &c. which create

obstructions and goïtres, should also occasion mental imbecility and disarrangement. But, in conjunction with causes of a physical nature, there is a moral one likewise to be taken into the account: for the children of the common people are *totally neglected* by their parents; and, with no more education than the meanest brutes, are, like them, suffered to wallow in the dirt, and to eat and drink whatever comes in their way!

"I saw several idiots with goïtres, but I do not mean to draw any certain conclusion from that circumstance. For though in general they are the children of goïtrous parents, and have frequently those swellings themselves, yet the contrary often happens; and they are sometimes the offspring even of healthy parents, whose other children are all properly organized. So that it seems, the causes above-mentioned operate more or less upon some constitutions than upon others; as, indeed, is observable in all epidemical disorders whatsoever.

"I was told by a physician of the Vallais, that children are sometimes born with goïtres; and I saw several, scarce ten years old, who had very large ones. These swellings, when they increase to a considerable magnitude, check respiration, and render those who have them exceedingly languid and indolent. During my expedition through the Vallais, I observed some of all proportions, from the size of a *walnut* to the bigness of a *peck loaf*.

"The species of idiots I have mentioned above, and who are deemed, by many authors, as peculiar to the Vallais, are called *Cretins*. Among these I also observed a kind of sensible gradation: namely, from those who, being totally deaf and dumb, and incapable of helping themselves, give no proof of their existence, but the mere animal sensations; to others, who are a little more animated, and possess some faint dawnings of reason.

"I was informed at Sion, that the number, both of goïtrous persons and of idiots, have considerably decreased within these few years; and two reasons were assigned: one is the laudable care which the magistrates have taken to dry up the stagnant waters in the neighbourhood; and the other, the custom which now generally prevails of sending their children to the mountains; by which means they escape the bad effects of the unwholesome air and water.

"It is to be presumed, that a person accustomed to see these excrescences daily, will not be at all shocked at their deformity; but I do not find, as some writers assert, that they consider them as beauties. I cannot believe that a Vallaisan poet would venture to address a copy of verses to his mistress in praise of her goïtre. To judge by the accounts of some travellers, one might suppose, that all these people, without exception, were gifted with the above appendage; whereas, in fact, as I have before remarked, the Vallaisans, in general, are a robust, hardy race of people; and all that with truth can be affirmed is, that *goitrous persons and idiots, are more abundant here than perhaps in any other part of the globe.*

"It has been asserted also by some, that the people very much *respect these idiots*, and even consider them as blessings from heaven; an assertion, which is as strongly contradicted by others. I made many inquiries in order to get at the truth of this matter. Upon my questioning some gentlemen of this country, whom I met at the baths of Leuk, they treated the notion as absurd and false: but whether they spoke their real sentiments, or were unwilling to confirm what they thought might lower their countrymen in the opinion of a stranger, will admit of some doubt. For I have, since that time, repeatedly enquired among the lower sort, and am convinced, that the common people esteem them as a blessing. They call them '*Souls of God, without sin*;' and there are many parents who prefer these idiot-children to those whose understandings are perfect; because, as they are incapable of intentional criminality, they consider them as

more certain than the others of happiness in a future state.—Nor is this opinion entirely without some good effect, as it disposes the parents to pay the greater attention to those unhappy beings, who are incapable of taking care of themselves. These idiots are suffered to marry, as well among themselves as with others; and thus the breed is, in some measure, prevented from becoming extinct.

"Since I wrote the above letter, I have met with an account of these Cretins in the '*Recherches Philosophiques sur les Americains.*' The ingenious author compares them with the *Blafards* of the isthmus of Darien; a species of beings who resemble the white Negroes. I shall here subjoin his account of the Cretins, as being, in many respects, more ample than mine.

"We cannot give a better idea of the *Blafards*, than by comparing them to the Cretins, or idiots, that are so numerous in the Vallais. They are deaf, dumb, almost insensible to blows, and many have great *protuberances from the throat, that hang down to their very waists.* They are neither malevolent nor fierce, although absolutely devoid of the faculties of thought. By instinct only, they attend to their natural wants, and abandon themselves to sensual pleasures without one idea of indecency or crime!—The inhabitants of the Vallais regard them as *saints*, and as the tutelary angels of their families. They never contradict them, they watch them with all the assiduity of tenderness, and neglect nothing that can tend to divert them, and to gratify their appetites. The aged revere, and children dare not insult them. Their skin is very livid, and *they are born Cretins*—that is, in the lowest degree of stupidity; and in this deplorable state they continue till death. The veneration they bear for these persons is founded on their innocence and their weakness; they cannot sin, because they cannot distinguish vice from virtue; they can injure no one, being equally devoid of strength and inclination. This is precisely the case with the *Blafards.*"

METHOD OF INOCULATION FOR THE SMALL-POX AT HINDOSTAN.

INOCULATION is performed in Hindostan by a particular tribe of Bramins, who are delegated annually for that service. The inhabitants of the different provinces, knowing the usual time of their arrival, observe strictly the regimen enjoined, whether they determine to be inoculated or not. This preparation consists only in abstaining for a month from fish, milk, and *ghee*, a kind of butter made generally of buffalo's milk.

When the Bramins begin to inoculate, they pass from house to house, and operate at the door; refusing to perform on any person who has not strictly observed the preparatory course enjoined them. It is not unusual for them to ask their parents, how many pustules they choose their children should have; and though vanity, more than well-founded confidence in their own skill, might seem to prompt such a question, we are assured by good authority, that they hardly ever exceed, or are deficient in the number required.

They inoculate indifferently on any part, but if left to their own choice, they prefer the outside of the arm, mid-way between the wrist and the elbow for the males, and the same between the elbow and shoulder for those of the other sex.

After the operation, which (a few superstitious ceremonies excepted) is performed nearly in the usual manner, the diet that had been previously recommended, is ordered to be continued a month longer. It is likewise prescribed, that a quantity of cold water be thrown on the patient every morning and evening, till the fever supervenes; from which time this method of bathing is to be suspended, until the appearance of the eruption, when it is again to be practised in the same manner, through the subsequent course of the disease.

The pustules are opened with a fine sharp-pointed thorn, as soon as they begin to change their colour, and whilst the matter continues in a fluid

state. Confinement to the house is absolutely forbid, and the regimen is ordered to consist of all the cooling things which the climate and season produces.

CAUTION IN EATING.

THOUGH appetite for food be the most certain indication that nature requires a supply, yet when irregular, it ought never to be indulged beyond a moderate extent. By slow eating the stomach suffers a very gradual distension, and the food has sufficient time to be duly prepared by mastication or chewing in the mouth; and he who observes this simple rule will feel himself satisfied only when he has received a due proportion of aliment; whilst he who swallows his food too quickly and before it is perfectly chewed, will be apt to imagine he has eaten enough, when the unmasticated provisions merely press on the sides of the stomach; the consequence is, that hunger will soon return. Those who take more exercise in winter than in summer can also digest more food: but as individuals leading a sedentary life usually suffer in winter from a bad state of digestion, owing to a want of exercise, they ought in this season to be more sparing of aliment.

To those who suffer from fast eating and too strong an appetite, we recommend the following

DIGESTIVE PILLS.

Take of extract of Jalap, half a drachm;
Of powdered rhubarb, a scruple;
Of gamboge, six grains;
Of extract of colocynth, a drachm;
Mix,—and make into fifteen or eighteen pills.—From one to four, a dose. Take them after dinner or supper.

TO ALLAY HUNGER AND THIRST.

IN famine, life may be protracted with less pain and misery by a moderate allowance of water: for the acrimony and putrefaction of the humours are obviated by such dilution, and the lungs are furnished with that moisture which is essential to the performance of their functions.

Fontanus relates the history of a woman who obstinately refused to take any sustenance except twice during the space of fifty days, at the end of which period she died. But he adds, that she used water by way of drink, though in small quantities.

Rede, who made many cruel experiments to ascertain the effects of fasting on fowls, observed, that none were able to support life beyond the ninth day, to whom drink was denied; whereas those who had water allowed, lived more than twenty days. Many instances are on record of the support of human life, for a time, by water alone.

To those who by their occupations are exposed to the dreadful calamity of hunger, it is of serious importance to be instructed in the means of alleviating it. The American Indians use a composition of the juice of tobacco and the shells of snails, cockles, and oysters calcined, whenever they undertake a long journey, and are likely to be destitute of provisions. The shells are not burnt into quick lime; but only so as to destroy their tenacity and to render them fit to be powdered. The mass is dried and formed into pills of a proper size, to be held between the gum and the lip, which being gradually dissolved and swallowed, blunts the sensation both of hunger and thirst. Tobacco, by its narcotic quality, seems well adapted to counteract the uneasy impressions which the gastric juice makes on the nerves of the stomach when empty; and the combination of these earthy powders tends to correct the secretion that is supposed to be the chief agent in digestion, and which, if not acid, is always attended by acidity, and so is neutralized by the shells. Certain it is at least, that their operation is most grateful and salutary; for we find that the inhabitants of the East Indies mix them with the beetle nut, to the chewing of which they are uni-

versally and immoderately addicted. Perhaps such absorbents may be usefully applied, both to divide the doses, and to moderate the virulence of the tobacco; for in the internal exhibition of this plant, much caution is required; as it produces sickness, vertigo, cold clammy perspirations, and a train of other formidable symptoms, when taken in too large a dose.

USEFUL OPENING POWDER

FOR CHILREN OF ALL KINDS, TO RESTORE AS WELL AS PRESERVE HEALTH.

TAKE of rhubarb, jalap, and powdered cinnamon, each, half a drachm;
Of cream of tartar, a drachm;
Mix,—and divide into six powders.

When the child wants physic, let one powder be given at nine o'clock in the morning, and one every three hours till they operate. This may be done with advantage, once a month, with every child.

HEART-BURN, AND ACIDITIES IN THE STOMACH.

WHEN heart-burn takes place, we may without doubt infer, that there is a greater quantity of bile thrown out from the liver into the intestinal canal than is necessary for the process of digestion; or else, that being blocked up by constipation, it becomes acid and irritating, and is regurgitated from the intestinal canal into the stomach

To obtain immediate relief, the best medicine is the following

POWDER FOR HEARTBURN.

Take of calcined magnesia, a tablespoonful;
Of compound powder of chalk with opium, ten grains:
Mix,—and take in a little milk.

This powder will immediately check heart-burn or acidities in the stomach; but to prevent a return of the complaint, one or two of the following pills must be taken every second or third night.

PILLS TO CURE HEART-BURN, AND PREVENT ITS RETURN.

Take of sublimate of quicksilver, twelve grains;
Extract of jalap, half a drachm;
Scammony, a scruple;
Gamboge, ten grains;
Oil of cloves, six drops;
Mix,—and make into twelve pills.

Most people who labour under indigestion are afflicted with superabundant acids in the stomach, and the principle symptom is the sour eructations which they commonly experience. With such, the above powder, followed by the use of the pills for a considerable time, will be of great benefit.

CHOLERA-MORBUS.

THIS disease is a sudden, abundant, and painful evacuation, by vomiting and by stool.

It begins with much flatulence, with swelling and slight pains in the stomach, accompanied by great dejection, and followed with large evacuations either by stool or by vomit at first, but whenever either of them has begun the other quickly follows. The matter evacuated is either yellowish, green, brown, whitish, or black; the pains in the stomach are violent; the pulse, (almost constantly feverish,) is sometimes strong at first, but soon sinks into weakness, in consequence of the prodigious discharge. Some patients purge a hundred times in the compass of a few hours: they may even be seen to fall away; and if the disease exist in a violent degree, they are scarcely to be known within three or four hours from the commencement of these discharges. After a great number of them, they are afflicted with spasms or cramps in their legs, thighs, and arms, which torment them as much as the pains in the stomach. When the disease

rages too highly to be assuaged; hiccups, convulsions, and a coldness of the extremities approach; there is a uninterrupted succession of fainting or swooning fits; the patient dying either in one of them, or in convulsions.

This disease, which constantly depends on bile raised to the highest acrimony, commonly prevails towards the end of July and in August: especially if the heats have been very violent, and there have been little or no summer fruits, which greatly conduce to attemper and allay the putrescent acrimony of the bile.

Nevertheless, however violent this distemper may be, it can be very soon allayed; but if neglected or improperly treated, it as soon ends fatally.

1. Our first endeavour should be to dilute, or even to drown this acrid bile, by draughts, by deluges of the most mitigating drinks; the irritation being so great, that every thing having the least sharpness is injurious. Therefore the patient should continually take in, by drink, and by way of clyster, either barley-water or pure water with one eighth part milk; or he may use a very light decoction of bread, which is made by gently boiling a pound of toasted bread in three or four quarts of water for half an hour.

A very light thin soup made of a pullet, a chicken, or of one pound of lean veal, in three quarts of water, is very proper in this disorder. Whey is also employed to good purpose; and in those places where it can be easily had, butter-milk is the best drink of any. But whichever of these drinks shall be thought preferable, it is a necessary point to drink very plentifully of it; and the clysters should be given every two hours.

2. If the patient be of a robust constitution and sanguine complexion, with a strong pulse at the time of the attack, and the pains are very severe; a first, and in some cases a second bleeding, very early on the invasion, assuages the violence of the malady and allows more leisure for the assistance of other remedies. We have seen the vomiting cease almost entirely after the first bleeding.

The rage of this disorder abates a little after a duration of five or six hours: we must not, however, during this remission or abatement, forbear to throw in proper remedies; since it returns soon after with great force, which return however indicates no alteration of the method already entered upon.

3. In general, the warm bath refreshes the patient while he continues in it; but the pains frequently return soon after he is taken out; which however, is no reason for omitting it, since it has very frequently been found to give a more durable relief. The patient should continue in it for a considerable time, and during that time, he should take six or seven glasses of diluting drink. By these means the vomiting has been stopped; and the patient upon going out of the bath, has had several large evacuations, which very considerably diminished the violence of the disorder.

4. If the patient's attendants be terrified by these great evacuations, and determine to check them, however prematurely, by Venice treacle, mint water, syrup of white poppies, called diacodium, by opium, or mithridate, it either happens that the disorder and all its symptoms are heightened, or if the evacuations should actually be stopped, the patient, in consequence of it, is thrown into a more dangerous condition.

However, when the patient has drank of weak drinks largely and of broths, we should administer laudanum, which is a specific in cholera-morbus. Twenty drops, or from that to forty drops, is a dose; and this may be repeated twice or even thrice a day, according to circumstances. When the limbs are affected with spasms, nothing will relieve so suddenly as laudanum.

If the patient be likely to recover, the pains and evacuations gradually abate; the thirst is less; the pulse continues very quick, but it becomes regular. There have been instances of their propensity to a heavy kind

of drowsiness at this time; for perfect refreshing sleep advances but slowly after this disorder. It will still be proper to persevere in the medicines already directed, though somewhat less frequently. And now we may begin to allow the patient a few soups from farinaceous or mealy substances; and as soon as the evacuations acccompanying this disorder are evidently ceased, and the pains are vanished, though an acute sensibility and great weakness continue; beside such soups, he may be allowed some new-laid eggs, very lightly boiled, or even raw, for some days. He must also continue to take daily the following

LAXATIVE AND ANTIBILIOUS POWDERS.

Take of rhubarb, five grains;
Of powdered Scammony, two grains;
Of ginger, five grains:
Mix.

This should be taken in a little wine.

DIARRHŒA, OR LOOSENESS.

EVERY one knows what is meant by a looseness or purging, frequently called a flux, and sometimes a cholic.

Those which come on suddenly, without any preceding disorder, except a slight qualm or short loathing, and a pain in the loins and knees; which are not attended with smart pains nor a fever, and frequently without any pain or any other complaint, are oftener of service than prejudicial. They carry off a heap of matter that may have been long amassed and corrupted in the body; which, if not discharged, might have produced some distemper; and far from weakening the body, such purgings as these render it more strong, light, and active.

Such, therefore, ought by no means to be stopped, nor even speedily checked: they generally cease of themselves, as soon as all the noxious matter is discharged; and as they require no medicine, it is only necessary to retrench considerably from the ordinary quantity of nourishment; to abstain from flesh, eggs, and wine, or other strong drink; to live only on some soups, or on a little fruit, whether raw or baked; and to drink rather less than usual.

But should it continue more than five or six days, and manifestly weaken the patient; if the pains attending it grow a little severe; and especially if the irritation, the urging to stool, prove more frequent, it becomes seasonable to check or stop it. For this purpose the patient is to be put into a regimen; and if the looseness have been accompanied with great loathing, with risings at the stomach, with a foul furred tongue, and a bad taste in the mouth, he must take the following

EMETIC.

Take of ipecacuanha, thirty grains;
Of tartar emetic, one grain:
Mix.

But if these symptoms do not appear, give the following

ANTI-ACID POWDER.

Take of rhubarb, twelve grains;
Of ipecacuanha, two grains:
Mix.

And during the following hours, let him take every half hour, a cup of weak light broth, without any fat on it.

If the purging, after being restrained by this medicine, should return within a few days, it would strongly infer, there was still some tough viscid matter within that required evacuation. To effect this he should take the medicines again; and afterwards take fasting, for two successive mornings, ten grains of compound powder of chalk.

A purging is often neglected for a long time without observing the least regimen, from which neglect they degenerate into tedious, and as it were, habitual, perpetual ones, and entirely weaken the patient. In such cases the following should be given:

MIXTURE FOR LOOSENESS.

Take of chalk mixture, half a pint;
Of tincture of opium, 2 drachms.
A table-spoonful every three hours.

During all which time he should live on nothing but panada; or on rice boiled in weak chicken broth. A strengthening stomachic plaister has sometimes been successfully applied. Cold and moisture should be carefully avoided in these cases, as it frequently occasions immediate relapses, even after the looseness has ceased for many day.

MEDICAL DIRECTIONS CONCERNING CHILDREN.

THE following concise observations, if profited by, will serve to give children a more vigorous constitution and temperament, and to preserve them from many disorders.

First, then, we should be careful not to cram them too much, and to regulate both the quantity and the set time of their meals, which is a very practicable thing, even in the very earliest days of their life, when the woman who nurses them should be careful to do it regularly. Perhaps, indeed, this is the very age, when such a regulation may be the most easily attempted and effected; because it is that stage, when the constant uniformity of their way of living should incline us to suppose, that what they have occasion for is most constantly much the same.

A child who has already attained to a few years, and who is surrendered up more to his own exercise and vivacity, feels other calls; his way of life has become a little more various and irregular; whence his appetite must prove so too. Hence it would be inconvenient to subject him too strictly to one certain rule in the quantity of his nourishment, or the distance of his meals. The dissipation or passing off of his nutrition being unequal, the occasions he has for repairing it cannot be precisely stated and regular. But with respect to very little children in arms or on the lap, a uniformity in the first of these respects, (the quantity of their food,) very consistently conduces to a useful regularity with respect to the second, (the times of feeding them.) Sickness is probably the only circumstance that can warrant any alteration in the order and intervals of their meals; and then this change should consist in a diminution of their usual quantity, notwithstanding a general and fatal conduct seems to establish the very reverse; and this pernicious fashion authorizes the nurses to cram these poor little creatures the more, in proportion as they have real need of less feeding. They conclude of course, that all their cries are the effects of hunger; and the moment an infant begins, they immediately stop his mouth with his food, without once suspecting that these wailings may be occasioned by the uneasiness which an overloaded stomach may have introduced, or by pains, whose cause is neither removed nor mitigated, by making the children eat; though the mere action of eating may render them insensible to slight pains for a very few minutes; in the first place, by calling off their attention; and secondly, by hushing them to sleep; a common effect of feeding children, being in fact a very general and constant one, and depending on the same causes which dispose so many grown persons to sleep after meals.

A detail of the many evils children are exposed to, by thus forcing too much food upon them at the very time when their complaints are owing to causes very different from hunger, might appear incredible. They are, however, so numerous and certain, that we seriously wish sensible mothers would open their eyes to the consideration of this abuse, and agree to put an end to it.

Those who overload them with victuals in hopes of strengthening them, are extremely deceived; there being no one prejudice equally fatal to such a number of them. Whatever unnecessary aliment a child receives, weakens instead of strengthening him. The stomach, when over-

distended, suffers in its force and functions, and becomes less able to digest thoroughly. The excess of the food last received impairs the concoction of the quantity that was really necessary; which being badly digested, is so far from yielding any nourishment to the infant, that it weakens it, proves a source of disease, and concurs to produce obstructions, rickets, the evil, slow fevers, a consumption, and death.

Another unhappy custom prevails with regard to the diet of children when they begin to receive any other food besides their nurse's milk, and that is, to give them such as exceeds the digestive power of their stomachs; and to indulge them in a mixture of such things in their meals, as are hurtful in themselves, and are more particularly so with regard to their feeble and delicate organs.

To justify this pernicious indulgence they affirm it is necessary to accustom their stomachs to every kind of food: but this notion is highly absurd, since their stomachs should first be strengthened, in order to make them capable of digesting every food; and crowding indigestible or very difficultly digestible materials into it, is not the way to strengthen it. To make a foal sufficiently strong for future labour, he is exempted from any till he is four years old; which enables him to submit to considerable work, without being the worse for it. But if to inure him to fatigue, he should be accustomed immediately from his birth to submit to burdens above his strength, he could never prove any thing but an utter jade, incapable of real service. The application of this to the stomach of a child is plainly obvious.

We shall add another very important remark, and it is this, that the too early work to which the children of the peasantry are forced, become of real prejudice to the public. Hence families themselves are less numerous; and the more children there are removed from their parents while they are very young, it follows, that those who are left are obliged to work the more, and very often at hard labour, at an age when they should exercise themselves in the usual diversions and sports of children.—Hence they wear out, in a manner, before they attain the ordinary term of manhood; they never arrive at their utmost strength, nor reach their full stature; and it is too common to see a countenance with the look of twenty years, joined to a stature of twelve or thirteen. In fact they often sink under the weight of such hard involuntary labour, and fall into a mortal degree of wasting and exhaustion.

Secondly, they must be frequently washed or bathed in cold water.

Thirdly, they should be moved about and exercised as much as they can bear, after they are some weeks old: the earlier days of their tender lives seeming consecrated by nature herself, to a nearly total repose, and to sleeping; which seem not to determine, until they have need of nourishment: so that during this very tender term of life, too much agitation or exercise might be attended with mortal consequences. But as soon as their organs have attained a little more solidity and firmness, the more they are danced about (provided it is not done about their usual time of repose, which ought still to be very considerable) they are so much the better for it: and by increasing it gradually, they may be accustomed to a very quick movement, and at length very safely to such as may be called hard and hearty exercise. That sort of motion they receive in go-carts, or other vehicles particularly contrived for their use, is more beneficial to them than what they have from their nurse's arms; because they are in a better attitude in the former, and it heats them less in summer, which is a circumstance of no small importance to them; considerable heat and perspiration disposing them to be ricketty.

Fourthly, they should be accustomed to breathe in the open air as much as possible. If children have unhappily been less attended to than they ought, whence they are evidently feeble, thin, languid, obstructed,

and liable to that which constitutes what is termed a ricketty or consumptive state: these four directions, duly observed, may retrieve them from that unhappy state; provided the execution of them has not been too long delayed.

Fifthly, if they have any natural discharge of a humour by the skin, which is very common with them, or any eruption, such as tetters, white scurf, a rash, or the like, care must be taken not to check or repel them by restringent applications. Not a year passes without numbers of children having been destroyed by imprudence in this respect; while others have been reduced to a deplorable and weakly habit.

We have been a witness to the most unhappy consequences of external medicines applied for the rash and white scurf; which, however frightful they may appear, are never dangerous; provided nothing at all be applied to them without the advice and consideration of a skilful person.

When such external disorders prove very obstinate, it is reasonable to suspect some fault or disagreement in the milk the child sucks; in which case it should immediately be discontinued, corrected, or changed.

ADVICE ON WOUNDS.

LABOURING countrymen and mechanics are exposed, in the course of their daily work, to many outward accidents, such as cuts, contusions, &c. which, however considerable in themselves, very generally end happily; and that chiefly in consequence of the pure and simple nature of their blood, which is generally much less acrimonious in the country, than in great towns or cities. Nevertheless, the very improper treatment of such accidents, in the country, frequently renders them, however light in themselves, very troublesome; and indeed we have seen so many instances of this, that we have thought it necessary to mark out here the proper treatment of such accidents as may not necessarily require the hand or attendance of a surgeon.

If a wound has penetrated into any of the cavities, and has wounded any part contained in the breast or in the belly; or if, without having entered into one of the cavities, it has opened some great blood-vessel; or if it has wounded a considerable nerve, which occasions symptoms much more violent than would have otherwise happened; if it has penetrated even to and injured the bone; in short, if any great and severe symptom supervenes, there is an absolute necessity for calling in a surgeon. But whenever the wound is not attended with any of these circumstances, when it affects only the skin, the fat membrane beneath it, the fleshy parts and the small vessels, it may easily and simply be dressed without such assistance; since, in general, all that is truly necessary in such cases is, to defend the wound from the impressions of the air, and yet not so as to give any material obstruction to the discharge of the matter that is to issue from the wound.

If the blood do not particularly flow out at any considerable vessel, but trickles almost equally from every spot of the wound, it may very safely be permitted to bleed, while some lint is speedily preparing. As soon as the lint is ready, so much of it may be introduced into the wound as will nearly fill it, without being forced in, which is highly improper, and would be attended with the same inconveniences as tents and dossils. It should be covered over with a compress dipped in sweet oil, and the whole dressing should be kept on, with a bandage of two fingers breadth, and of a length proportioned to the size of the part it is to surround: it should be rolled on tight enough to secure the dressings, and yet so moderately as to bring on no inflammation.

This bandage with these dressings are to remain on twenty four or forty-eight hours; wounds healing the sooner for being less frequently drest. At the second dressing all the lint must be removed, which can be done with ease, and with reasonable speed,

to the wounded; and if any of it should stick close, in consequence of the clogged and dry blood, it should be left behind, adding a little fresh lint to it; this dressing in other respects resembling the first.

When, from the continuance of this simple dressing, the wound has become very superficial, it is sufficient to apply the plaister, without any lint.

Such as have conceived an extraordinary opinion of any medical oils, impregnated with the virtues of particular plants, may, if that will increase their satisfaction, make use of the common oil of yarrow, of trefoil, of lillies, of camomile, of balsamines, or of red roses; only being very careful, that such oils are not become stale and rank.

When the wound is considerable, it must be expected to inflame before suppuration (which in such a case, advances more slowly) can ensue; which inflammation will necessarily be attended with pain, with a fever, and sometimes with a raving or wandering too. In such a situation, a poultice of bread and milk, with the addition of a little oil, that it may not stick too close, must be applied instead of the compress or plaister; which poultice is to be changed, but without uncovering the wound, thrice and even four times every day.

Should some considerable blood-vessel be opened by the wound, there must be applied over it a piece of agaric of the oak, of which no country place ought to be unprovided. It is to be kept on, by applying a great quantity of lint over it; covering the whole with a thick compress, and then with a bandage a little tighter than usual. If this should not be sufficient to prevent the bleeding from the large vessel, and the wound be in the leg or arm, a strong ligature must be made above the wouud with a tourniquet, which is formed in a moment with a skain of thread or of hemp, that is passed round the arm circularly, into the middle of which is inserted a piece of wood or stick of an inch thickness, and four or five inches long; so that by turning round this piece of wood, any tightness or compression may be effected at pleasure. But care must be taken,

1. To dispose the skain in such a manner, that it must always be two inches wider than the part it surrounds.

2. Not to strain it so tight as to bring on an inflammation, which might terminate in a mortification.

All the boasted virtues of a multitude of ointments are downright nonsense or quackery. Art, strictly considered, does not in the least contribute to the healing of wounds; the utmost we can do amounting only to our removing those accidents, which are so many obstacles to their reunion. On this account, if there be any extraneous body in the wound, such as iron, lead, wood, glass, bits of cloth, or linen, they must be extracted, if that can be very easily done; but if not, application must be made to a good surgeon, who considers what measures are to be taken, and then dresses the wound, as we have already advised.

Very far from being useful, there are many ointments that are pernicious on these occasions; and the only cases in which they should be used, are those in which the wounds are distinguished with some particular appearances, which ought to be removed by particular applications: but a simple recent wound, in a healthy man, requires no other treatment but what we have already directed, besides that of the general regimen.

Spirituous applications are commonly hurtful, and can be suitable and proper but in a few cases, which physicians and surgeons only can distinguish.

When wounds happen in the head, instead of the compress dipped in oil, or of the cerecloth, the wound should be covered with a compress squeezed out of hot wine.

As the following symptoms, of which we should be most apprehensive, are such as attend inflammations, the means we ought to have recourse to are those which are [illegible] most likely to prevent them: [illegible] such as bleed-

ing, the usual regimen, moderate purgatives, and clysters.

Should the wound be very inconsiderable in its degree and in its situation, it may be sufficient to avoid taking any thing heating; and above all things to retrench the use of any strong drink, and of flesh-meat.

But when it is considerable, and an inflammation must be expected, there is a necessity for bleeding; the patient should be kept in the most quiet and easy situation; he should be ordered immediately to a regimen; and sometimes the bleeding also must be repeated. Now all these means are the more indispensably necessary, when the wound has penetrated to some internal part; in which situation, no remedy is more certain than that of an extremely light diet. Such wounded persons as have been supposed incapable of living many hours, after wounds in the breast, stomach, or kidneys, have been completely recovered, by living for the course of several weeks, on nothing but barley, or other farinaceous mealy drinks, without salt, without soup, without any medicine, and especially without the use of any ointments.

In the same proportion that bleeding, moderately and judiciously employed, is serviceable, in that same degree an excess of it becomes pernicious. Great wounds are generally attended with a considerable loss of blood, which has already exhausted the wounded person; and the fever is often a consequence of this copious loss of blood. Now if under such a circumstance, bleeding should be ordered and performed, the patient's strength is totally sunk; the humours stagnate and corrupt; a gangrene supervenes, and he dies miserably, at the end of two or three days, of a series of repeated bleedings, but not of the wound. Notwithstanding the certainty of this, the surgeon frequently boasts of his ten, twelve, or fifteen bleedings; assuring his hearers of the insuperable mortality of the wound, since the letting out such a quantity of blood could not recover the patient; when it really was that excessive artificial profusion of it, that dispatched him.

The balsams and vulnerary plants, which have often been so highly celebrated for the cure of wounds, are very noxious, when taken inwardly; because the introduction of them gives or heightens the fever, which ought to have been abated.

ADVICE ON BURNS.

When a burn is trifling and superficial, and occasions no vesication or blister, it is sufficient to place a compress of several folds of soft linen upon it, dipped in cold water, and to renew it every quarter of an hour, till the pain is entirely removed. But when the burn has blistered, a compress of very fine linen, spread over with simple ointment, should be applied over it, and changed twice a day.

If the true skin be burnt, and even the muscles, or the flesh under it be injured, the same ointment may be applied; but instead of a compress, it should be spread upon a fold of soft lint, to be applied very exactly over it, and over that again a plaister of the following

OINTMENT FOR BURNS.

Take of lard, a quarter of a pound,
Of sugar of lead, half an ounce;
Mix.

But independently of these external applications, (which are the most effectual ones, when they are directly to be had,) whenever the burn has been violent, is highly inflamed, and we are apprehensive of the progress and the consequences of the inflammation, the same means and remedies must be recurred to, which are used in violent inflammations; the patient should be bled, and if it is necessary, it should be repeated more than once, and he should be put into a regimen; drinking nothing but barley water and cream of tartar.

If the ingredients for the above ointment be not at hand, one part

of wax should be melted in eight such parts of oil, to two ounces of which mixture the yolk of an egg should be added. An application still more simple and sooner prepared, is that of one egg (both the yolk and white) beat up with two common spoonsful of sweet oil, without any rankness.

ADVICE ON CONTUSIONS OR BRUISES.

A CONTUSION, which is commonly called a bruise, is the effect of the forcible impression or stroke of a substance not sharp or cutting, on the body of a man or any animal; whether such an impression be violently made on the man, as when he is struck by a stick, or by a stone thrown at him; or whether the man be involuntarily forced against a post, a stone, or any hard substance by a fall; or whether, in short, he is squeezed between two hard bodies, as when his finger is squeezed between the door and the door-post, or the whole body jammed between any carriage and the wall. These bruises, however, are still more frequent in the country than wounds, and commonly more dangerous; and indeed the more so, as we cannot judge so exactly, and so soon of the whole injury that has been incurred; and because all that is immediately visible of it is often but a small part of the real damage attending it; since it frequently happens that no hurt appears for a few successive days: nor does it become manifest, until it is too late to admit of an effectual cure.

A cooper had fallen in removing some casks or hogsheads, and the whole weight of his body had been violently impressed upon the right side of his breast. Notwithstanding this, he was sensible of no hurt at first; but some days afterwards he began to feel a dull heavy pain in that part, which continued and brought on a difficulty of breathing, weakness, broken sleep, and loss of appetite. He was ordered immediate rest, and to drink a decoction of barley sweetened with honey, in a plentiful quantity. He regularly obeyed only the latter part of the directions: and although he said he was better, he was, in a week after, found dead in his bed. The imposthume had undoubtedly broke, and suffocated him.

A young man, run away with by his horse, was forced with violence against a stable door, without being sensible of any damage at the time. But at the expiration of twelve days he found himself attacked by some such complaints, as generally occur at the beginning of a fever. This fever was mistaken for a putrid one, and he was very improperly treated, for the fever it really was, above a month. In short, it was agreed at a consultation, that matter was collected in the breast. In consequence of this, he was more properly attended, and at length happily cured by the operation for an empyema, after languishing a whole year. We have published these two instances, to demonstrate the great danger of neglecting violent strokes or bruises: since the first of these patients might have escaped death, and the second a tedious and afflicting disorder, if they had taken immediately after each accident, the necessary precautions against its consequences.

Whenever any part is bruised, one of two things always ensues, and commonly both happen together; especially if the contusion be considerable; either the small blood-vessels of the contused part are broken, and the blood they contained is spread about in the adjoining parts; or else, without such an effusion of it, these vessels have lost their tone, their active force, and no longer contributing to the circulation, their contents stagnate. In each of these cases, if nature, either with or without the assistance of art, does not remove the impediment, an inflammation comes on, attended by an imperfect suppuration, with putrefaction and a gangrene; not to mention the symptoms that arise from the contusion of some particular substance, as a nerve, a

large vessel, a bone, &c. Hence we may also conceive the danger of a contusion happening to any inward part, from which the blood is either internally effused, or the circulation wholly obstructed in some vital organ. This is the cause of the sudden death of persons after a violent fall; or of those who have received the violent force of heavy descending bodies on their heads; or of some violent strokes; without any evident external hurt or mark.

There have been many instances of sudden deaths, after a blow on the pit of the stomach, which has occasioned a rupture of the spleen.

It is in consequence of falls occasioning a general slight contusion, as well internal as external, that they are sometimes attended with such serious consequences; especially in old men, where nature, already enfeebled, is less able to redress such disorders. And thus in fact it has been, that many such, who had before enjoyed a firm state of health, have immediately lost it after a fall, (which seemed at first to have affected them little or not at all,) and languished soon after to the moment of their death, which such accidents very generally accelerate.

Different external and internal remedies are applicable in contusions. When the accident has occurred in a slight degree, and there has been no great nor general shock which might produce an internal soreness or contusion, external applications may be sufficient. They should consist of such things as are adapted, first, to attenuate and resolve the effused and stagnant blood, which shews itself so apparently; and which, from its manifest blackness very soon after the contusion, becomes successively brown, yellow, and greyish, in proportion as the magnitude of the suffusion or settling decreases, till at last it disappears entirely, and the skin recovers its natural colour; without the blood's having been discharged through the external surface, as it has been insensibly and gradually dissolved and taken in again by the vessels: and secondly, the medicines should be such as are qualified to restore the tone and to recover the strength of the affected vessels.

The best application is vinegar, diluted if very sharp, with twice as much warm water; in which mixture folds of linen are to be dipped, within which the contused parts are to be involved; and these folds are to be re-moistened and re-applied every two hours on the first day.

Parsley, chervil, and houseleek leaves, lightly pounded, have also been successfully employed; and these applications are preferable to vinegar, when a wound is joined to the bruise.

It has been a common practice immediately to apply spirituous liquors, such as brandy, arquebusade, and alibour water,* and the like; but a long abuse ought not to be established by prescription. These liquids, which coagulate the blood, instead of resolving it, are truly pernicious; notwithstanding they are sometimes employed without any visible disadvantage, on very slight occasions. Frequently, by determining the settled blood toward the interstices of the muscles, the fleshy parts, or sometimes even by preventing the effusion, or visible settling of the blood, and fixing it, as it were, within the bruised vessels, they seem to be well; though this only arises from their concentrating and concealing the evil, which, at the end of a few months, breaks forth again in a very troublesome shape. Of this we have seen some miserable examples, whence it has been abundantly evinced, that applications of this sort should never be admitted, and that vinegar should be used instead of them. At the utmost, it should only be allowed (after there is reason to suppose all the stagnant blood resolved and resorbed into the circulation,) to add a third part of the arquebusade water to the vinegar, with an intention to restore

* A solution of white vitriol and some other drugs in spirits of wine, and is never used in regular practice now.

some strength to the relaxed and weakened parts.

It is a still more pernicious practice to apply to bruises plaisters composed of greasy substances, resins, gums, earths, &c. The most boasted of these is always hurtful, and there have been many instances of very slight contusions being aggravated into gangrenes by such plaisters ignorantly applied, and which bruises would have been entirely subdued by the economy of nature, if left to herself, in three or four days.

Those suffusions of coagulated blood which are visible under the skin, should never be opened, except for some urgent reason; since, however large they may be, they insensibly dissipate; instead of which termination, by opening them, they sometimes terminate in a dangerous ulceration.

The internal treatment of contusions is exactly the same with that of wounds; only that in these cases the best drink is a decoction of elder-flowers, to each quart of which a drachm of nitre must be added.

When any person has had a violent fall; has lost his senses, or is become very stupid; when the blood starts out of his nostrils or his ears; when he is greatly oppressed, or his belly feels very tight and tense, which indicates an effusion of blood either into the head, the breast, or the stomach; he must first of all be bled upon the spot, giving the patient the least possible disturbance or motion, and by all means avoiding to jog or shake him, with a design to bring him to his senses, which would be directly and effectually killing him, by causing a further effusion of blood. Instead of this, the parts should be wetted with vinegar and water.

In these circumstances, wine, distilled spirits, and whatever has been supposed to revive and to rouse, are mortal. For this reason, people should not be too impatient, because the patients remain some time without sense or feeling. The giving of turpentine is more likely to do mischief than good; and if it has been sometimes serviceable, it must have been in consequence of its purging the patient, who probably then needed to be purged. The fat of a whale (spermacœte), dragon's blood, crab's-eyes, and ointments of whatsoever sort, are at least useless and dangerous medicines, if the case be very hazardous; either by the mischief they do, or the good they prevent being done. The proper indication is to dilute the blood, to render it more fluid and disposed to circulate, by light drinks, in food, and gentle laxitives.

When an aged person gets a fall, which is more dangerous in proportion to his age and grossness; notwithstanding he should not seem in the least incommoded by it, if he be sanguine and still somewhat vigorous, he should part with three or four ounces of blood. He should take immediately a few successive cups of a lightly aromatic drink, which should be given him hot; such, for instance, as an infusion of green tea, and he should be advised to move gently about. He must retrench a little from the usual quantity of his food, and accustom himself to very gentle, but very frequent exercise.

Sprains or wrenches, which so often happen, produce a kind of contusion in the parts adjoining to the sprained joint. This contusion is caused by the violent friction of the bone against the neighbouring parts; and as soon as the bones are immediately returned into their proper situation, the disorder should be treated as a contusion. Indeed, if the bones should not of themselves return into their proper natural position, recourse must be had to the hand of a surgeon.

The best remedy in this case is absolute rest and repose, after applying a compress moistened in vinegar and water, which is to be renewed and continued till the marks of the contusion entirely disappear, and there remains not the smallest apprehension of an inflammation. Then indeed, and not before, a little brandy may be added to the vinegar; and the part (which is almost constantly the foot) should

be strengthened and secured for a considerable time with a bandage; as it might otherwise be liable to fresh sprains, which would daily more and more enfeeble it; for if this evil is overlooked in its infancy, the part never recovers its full strength; and a small swelling often remains to the end of the patient's life.

If the sprain is very slight and moderate, a plunging of the part into cold water is excellent; but if this is not done at once immediately after the sprain, or if the contusion is violent, it is even hurtful.

The custom of rolling the naked foot upon some round body is insufficient, when the bones are not perfectly replaced; and hurtful, when the sprain is accompanied with a contusion.

It happens continually almost, that country people, who encounter such accidents, apply themselves either to ignorant or knavish impostors, who find, or are determined to find, a disorder or dislocation of the bones, where there is none; and who, by their violent manner of handling the parts, or by the plaisters they surround them with, bring on a dangerous inflammation, and change the patient's dread of a small disorder, into a very grievous malady.

These are the very persons who have created, or indeed rather imagined, some impossible diseases, such as the opening, the splitting of the stomach, and of the kidnies. Such monstrous words terrify the poor country people, and dispose them to be more easily and effectually duped.

ADVICE ON ULCERS.

WHENEVER ulcers arise from a general fault of the blood, it is impossible to cure them, without destroying the cause and fuel of them. It is in fact imprudent to heal them up by outward remedies; and a real misfortune to the patient, if his assistant effectually heals and closes them.

But, for the greater part, ulcers in the country are the consequences of some wound, bruise, or tumour improperly treated; and especially of such as have been dressed with too sharp, or too spirituous applications. Rancid oils are also one of the causes, which change the most simple wounds into obstinate ulcers, for which reason they should be avoided; and apothecaries should be careful, when they compound greasy ointments, to make but little at a time, and the oftener, as a very considerable quantity of any of them becomes rank before it is all sold; notwithstanding sweet fresh oil may have been employed in preparing them.

What serves to distinguish ulcers from wounds, is the dryness and hardness of the sides or borders of ulcers, and the quality of the humour discharged from them; which, instead of being ripe consistent matter, is a liquid more thin, less white, sometimes yielding a disagreeable smell, and so very sharp, that if it touch the adjoining skin, it produces redness, inflammation, or pustules there; sometimes a serpiginous, or ring-worm-like eruption, and even a further ulceration.

Such ulcers as are of a long duration, which spread wide, and discharge much, prey upon the patient, and throw him into a slow fever, which melts and consumes him. Besides, when an ulcer is of a long standing, it is dangerous to dry it up; and indeed this never should be done, but by substituting in the place of one discharge, that is become almost natural, some other evacuation, such as purging from time to time.

We may daily see sudden deaths, or very tormenting diseases, ensue the sudden drying up such humours and drains as have been of a long continuance; and whenever any quack (and as many as promise the speedy cure of such, deserve that title) assures the patient of his curing an inveterate ulcer in a few days, he demonstrates himself to be a very dangerous and ignorant intermeddler, who must kill the patient, if he keep his word. Some of these impudent impostors make use of the most corrosive applications, and even arsenical ones; notwithstanding the most

violent death is generally the consequence of them.

The utmost that art can effect, with regard to ulcers, which do not arise from any fault in the humours, is to change them into wounds. To this end, the hardness and dryness of the edges of the ulcer, and indeed of the whole ulcer, must be diminished, and its inflammation removed. But sometimes the hardness is so obstinate, that this cannot be mollified any other way, than by scarifying the edges with a lancet, or by touching the edges daily with lunar caustic, and sprinkling the centre with red precipitate powder.

To forward the cure, salted food, spices, and strong drink, should be avoided; the quantity of flesh-meat should be lessened; and the body be kept open by a vegetable regimen, and by the habitual use of whey sweetened with honey.

If the ulcers be in the legs, a very common situation for them, it is of great importance, as well as in wounds of the same parts, that the patients should walk about but little; and yet never stand up without walking.—This indeed is one of these cases, in which those, who have some credit and influence in the estimation of the people, should omit nothing to make them thoroughly comprehend the necessity of confining themselves, some days, to undisturbed tranquility and rest; and they should also convince them, that this term of rest is so far from being lost time, that it is likely to prove their most profitable time of life. Negligence, in this material point, changes the slightest wounds into ulcers, and the most trifling ulcers into obstinate and incurable ones.

WHEN MILK MAY BE PROPER OR IMPROPER IN DISEASE.

It is proper in consumptions, in all cases of mineral poisons, in salivations, in stranguary, in fluor albus, in gonorrhœa, in scrofula, and in spasmodic diseases. It is also good, diluted with water, in gouty affections, when the paroxysm is gone off, in small-pox, and in measles.

Milk is improper in all bilious affections, in acute fevers, in strong inflammations, in rickets, in headaches, and in dyspeptic habits.

Milk rendered into whey, is a good drink in every disorder.

Taken with soda or seidlitz water, it is a most wholesome drink, and to obviate the costiveness which the constant use of milk may induce, a little magnesia mixed occasionally with it is an excellent medicine.

THE MOST USUAL CAUSES OF POPULAR DISEASES.

EXCESSIVE LABOUR.

The most frequent causes of diseases commonly incident to country people are, first, excessive labour, continued for a very considerable time. Sometimes they sink down at once in a state of exhaustion and faintness, from which they seldom recover: but they are oftener attacked with some inflammatory disease, as a quinsey, a pleurisy, or an inflammation of the breast.

There are two methods of preventing these evils: one is, to avoid the cause which produces them; but this is frequently impossible. Another is, when such excessive labour has been unavoidable, to allay their fatigue by a free use of some temperate refreshing drink; especially by sweet whey, by butter-milk, or by water, to a quart of which, a wine-glass of vinegar may be added; or instead of that, the expressed juice of grapes not fully ripe, or even of gooseberries or cherries; which wholesome and agreeable liquors are refreshing and cordial. The exhaustion or emptiness, though accompanied with symptoms different from the former, has yet some affinity to them with respect to their cause, which is a kind of general dryness. Some have been cured from this cause by whey, succeeded by tepid baths, and afterwards by cow's milk: in such cases hot medicines and high nourishment are fatal.

There is another kind of exhaustion

or emptiness, which may be termed real emptiness, and is the consequence of great poverty, the want of sufficient nourishment, bad food, unwholesome drink, and excessive labour. In cases thus circumstanced, good soups and a little wine are very proper. Such happen however very seldom in this country; but they are frequent in some others, especially in many provinces of France.

LYING DOWN IN COLD PLACES.

A second and very common source of disorders arises from people lying down and reposing, when very hot, in a cold place. This at once stops perspiration, the matter of which being thrown upon some internal part, proves the cause of many violent diseases, particularly of quinseys, inflammations of the breast, pleurisies, and inflammatory cholics. These evils, from this cause, may always be avoided by avoiding the cause, which is one of those that destroy a great number of persons. However, when it has occurred, as soon as the first symptoms of the malady are perceivable, which sometimes does not happen till several days after, the patient should immediately be bled; his legs should be put into water moderately hot; and he should drink plentifully of the infusion of elder flowers. Such assistances frequently prevent the increase of these disorders; which on the contrary, are greatly aggravated if hot medicines be given to make the patient perspire.

DRINKING COLD WATER.

A third cause is drinking cold water, when a person is extremely hot. This acts in the same manner with the second; but its consequences are commonly more sudden and violent. We have seen most terrible examples of it, in quinseys, inflammations of the breast, cholics, inflammations of the liver, and all parts of the stomach, with prodigious swellings, vomitings, suppressions of urine, and inexpressible anguish. The most available remedies in such cases, from this cause, are a plentiful bleeding at the onset, a very copious drinking of warm water, to which one fifth part of whey should be added; or of an emulsion of almonds, all taken warm. Fomentations of warm water should also be applied to the throat, the the breast, and stomach, with clysters of the same, and a little milk. In this case, as well as in the preceding one, a semicupium, or half-bath of warm water has sometimes been attended with immediate relief. It seems really astonishing that labouring people should so often habituate themselves to this pernicious custom, which they know to be very dangerous even to their beasts. There are none of them, who will not prevent their horses from drinking while they are hot; especially if they are just going to put them up. Each of them knows, that if he lets them drink in that state, they might possibly burst; but nevertheless he is not afraid of incurring the like danger himself. However, this is not the only case in which the peasant seems to have more attention to the health of his cattle, than to his own.

CHANGES OF WEATHER.

The fourth cause, which indeed affects every body, but more particularly the labourer, is the inconstancy of the weather. We shift all at once many times a day, from heat to cold, and from cold to heat, in a more remarkable manner, and more suddenly than in most other countries. This makes distempers from defluxion and cold so common with us: and it should make us careful to go rather more warmly clothed than the season may seem to require; to have recourse to our winter clothing early in Autumn, and not to part with it too early in the Spring. Prudent labourers, who strip while they are at work, take care to put on their clothes in the evening when they return home.—Those who from negligence are satified with hanging them upon their tools, frequently experience on their return, the very unhappy effects of it. There are some, though not many places, where the air itself is unwholesome, more from its particular quality, than from its changes of tem-

perature, as the fens of Lincolnshire. Such places are particularly subject to intermittent fevers.

Such sudden changes are often attended with showers of rain, and even cold rain, in the middle of a very hot day; when the person who was bathed, as it were, in a perspiration, is at once moistened in cold water; which occasions the same distempers as the sudden transition from heat to cold, and requires the same remedies. If the sun or a hot air succeed immediately to such a shower, the evil is considerably lighter: but if the cold continues, many are often incommoded by it.

A traveller is sometimes thoroughly and unavoidably wet with mud; the ill consequence of which is often inconsiderable, provided he changes his clothes immediately, when he sits up. Fatal pleurisies have ensued from omitting this caution. Whenever the body or the limbs are wet, nothing can be more useful than bathing them in warm water. If the legs only have been wet, it may be sufficient to bathe them. We have thoroughly cured persons subject to violent cholics, as often as their feet were wet, by persuading them to pursue this advice. The bath proves still more effectual if a small quantity of soap be dissolved in it.

CORRUPTED VAPOURS.

A fifth cause, which is seldom attended to, probably indeed because it produces less violent consequences, and yet is certainly hurtful, is the common custom of many villages of having their ditches or dunghills directly under their windows. Corrupted vapours are continually exhaling from them, which in time, cannot fail of being prejudicial, and must contribute to produce putrid diseases. Those who are accustomed to the smell become insensible of it; but the cause, nevertheless, does not cease to be unwholesomely active; and such as are unused to it, perceive the impression in all its force.

To this cause may also be added the neglect of the peasants to air their lodgings. It is well known that too close an air occasions the most perplexing malignant fevers; and the poor country people breathe no other in their houses. It is easy, however, to prevent all the evils arising from this source by opening the windows daily; so very practicable a precaution must be followed with the happiest consequences.

DRUNKENNESS.

We consider drunkenness as a sixth cause, not indeed as producing epidemical diseases, but which destroys, as it were, by retail, at all times and every where. The poor wretches who abandon themselves to it are subject to frequent inflammations of the breast, and to pleurisies, which often carry them off in the flower of their age. If they sometimes escape through these violent maladies, they sink, a long time before the ordinary approach of old age, into all its infirmities; and especially into an asthma, which terminates in a dropsy of the breast. Their bodies worn out by excess, do not comply and concur as they ought with the force or operation of remedies; and diseases and weakness, resulting from this cause, are almost always incurable. It seems happy, however, that society loses nothing in parting with these subjects, who are a dishonour to it, and whose brutal souls are, in some measure, dead long before their carcases.

PROVISIONS.

The provisions of the common people are also one cause of popular maladies.

1. This happens whenever the corn, not well ripened or not well got in, in bad harvests, has contracted an unwholesome quality. Fortunately, however, this is seldom the case; and the danger attending the use of it may be lessened by some precautions; such as those of washing and drying the grain completely; of mixing a little wine with the dough in kneading it; by allowing it a little more time to swell or rise, and by baking it a little more.

2. The fairer and better saved part of the wheat is sometimes damaged in the farmer's house; either because

he does not take due care of it, or because he has no convenient place to preserve it, only from one Summer to the next. Nevertheless, there are known and easy methods to provide against this by a little care. It is sufficient to make the people sensible, that since their chief sustenance consists of corn, their health must necessarily be impaired by what is bad.

3. That wheat which is good, is often made into bad bread by not letting it rise sufficiently; by baking it too little; and by keeping it too long. All these errors have their troublesome consequences on those who eat it; but in a greater degree on children and valetudinarians, or weakly people.

Tarts or cakes may be considered as an abuse of bread; and this in some villages is increased to a very pernicious height. The dough is almost constantly bad, and often unleavened, ill baked, greasy, and stuffed with either fat or sour ingredients, which compound one of the most indigestible aliments imaginable. — Women and children consume the most of this food, and are the very subjects for whom it is the most improper: little children especially, who live sometimes for many successive days on these tarts, are for the greater part unable to digest them perfectly. Hence they receive a source of obstructions, in the bowels of the stomach, and of a slimy viscidity or thickness throughout the mass of humours, which throws them into various diseases from weakness; slow fevers, a hectic, the rickets, the king's evil, and feebleness, for the miserable remainder of their days. Probably indeed there is nothing more unwholesome than dough not sufficiently leavened, ill baked, greasy, and soured by the addition of fruits. Besides, if we consider these tarts in an economical view, they must be found inconvenient for the peasant on that account too.

IMPERFECT CHEWING OF FOOD. Some other causes of maladies may also be referred to the article of food, though less serious and less frequent; into a full detail of which it is difficult to enter. We shall therefore conclude this article with this general remark: that is, the care which peasants usually take in eating slowly and in chewing well, that very greatly lessens the danger from a bad regimen: and we are convinced they constitute one of the greatest causes of that health they enjoy. We may further add indeed the exercise the peasant uses, and his long abiding in the open air, where he passes two thirds of his life; besides his happy custom of going soon to bed, and of rising very early, which are also considerable advantages. It were to be wished, that in these respects, and perhaps on many other accounts, the inhabitants of the country were effectually proposed as models for reforming the citizens.

We should not omit, in enumerating the causes of maladies among country people, the construction of their houses, which as we have observed, is another, and not the least important source of their diseases. A hardy labourer is not immediately sensible of the bad influence of a moist and marshy habitation; but they do not fail to operate some time or other, and it has been abundantly observed their most evident bad effects, especially on women in childbed, on children, and in persons recovering of a preceding disease. It would be easy to prevent this inconvenience, by raising the ground on which the house stood, several inches above the level of the adjacent soil, by a bed of gravel, of small flints, pounded bricks, or such other materials; and by avoiding to build immediately close to, or as it were, under a much higher soil. This object, perhaps, may well deserve the attention of the public: and we earnestly advise as many as do build, to observe the necessary precautions on this head. Another, which would cost still less trouble, is to give the front of their houses an exposure to the south-east. This exposure, supposing all other circumstances of the building and its situation to be alike, is both the most wholesome and

most advantageous. We have seen it, notwithstanding, very often neglected without the least reason being assigned for not preferring it.

These admonitions may possibly be thought of little consequence by three fourths of the people. We take the liberty of reminding them, however, that they are more important than they may be supposed; and so many causes concur to the destruction of men, that none of the means should be neglected, which may contribute to their preservation.

A FEW USEFUL MEDICAL HINTS FOR FAMILIES.

ON POWDERS.

In mixing powders, always add but very little fluid, so as to first reduce it to a paste; then add water or whatever fiuid the powder is to be dissolved in, by little and little.

Powders containing calomel are best taken in jelly, or such thing; because, if mixed with water, the calomel, being very heavy, falls to and remains upon the bottom.

The principal purgative powders in use are, jalap, calomel, rhubarb, scammony, gamboge, senna, and cream of tartar.

ON PILLS.

Pills are generally made into such sizes as the quantity presented will admit of, never exceeding in weight five grains.

Many take pills by themselves, as they would crumbs of bread, while others cannot swallow even bread alone when made into pills. The best mode of taking them in ordinary, is with jelly or panada or the like: but to those who cannot swallow them thus, an oyster will be the best carrier to the stomach: slit the thick part of a plump native oyster, and insert the pill, then pepper the oyster and swallow it. A child who can eat oysters, and will not swallow pills, may thus be effectually deceived.

Pills do not spoil in keeping when composed of gums; but when made of conserve of roses, or any such confection, they soon spoil.

The principal purgatives made into pills, are, aloes, extract of jalap, scammony, gamboge, and compound extract of colocynth, with all of which calomel is frequently joined.

ON MIXTURES.

The basis of mixtures in general is water, which serves as a medium for the administration of unpleasantly-tasted tinctures, and various medicinal salts and acids. They ought never to be taken after having stood for a long time.

Mixtures act sooner than pills.

The principal purgative mixtures are composed of salts and nitre, salts and senna, and infusion of senna; to these are often added some sudorific or diuretic, as the case may require.

OF DRAUGHTS.

These are administered when a medicine is required which it would be dangerous to entrust in two doses to those who administer the medicine; or when only one dose is required; or when the apothecary's bill is to be quickly enlarged. They are like mixtures, but smaller.

When it be desirable to get cheap and good medicines, the druggists are the places to find them, to whom the prescriptions should be taken; but when medical advice as to what drugs the disease requires is wanted, this is the last place to go to. *Good* prescribers do not mix; and *good* mixers do not prescribe.

POPULAR REMEDIES EXAMINED.

FOR A COLD.

Elderberry wine at nights, and other cordials, are most common in what is termed a "cold."

They may sometimes be taken without mischief, but the practice is extremely dangerous. "Colds" are always inflammations, and stimulating liquors must therefore increase them. In another part of our work

we shall treat at large upon what are termed "COLDS."

FOR PURIFYING THE BLOOD.

NETTLES boiled, and eaten in the morning.

This, with thousands of other nostrums, are daily given from one to another for what is termed "purifying the blood." This "PURIFYING" is nonsense; they either act by purgation, astringency, or a diuretic quality; we know of no medical quality in nettles. They are not, however, unwholesome; and in scarce winters, they serve as a substitute for greens.

TO SUPPLE THE JOINTS.

OIL of swallows.

There is no such oil in existence, nor ever has been. Yet it is commonly called for, and coloured oil sold for it. Tailors commonly use it after work.

MODE OF BEAUTIFYING THE COMPLEXION.

1st. WASH well the face in soft water and soap.

2nd. Wash off the particles of soap with PUMP water.

3rd. Wash the skin lightly with the following:

Take of soft water, a pint;
Of pure and sweet cream, quarter of a pint;
Of lavender-water, half a glass;
Then wipe the face with a soft linen napkin.

This is positively the best way, and decidedly the safest.

PROTECTION TO HARD DRINKERS.

ALTHOUGH hard drinking is a disease we would heartily wish to remedy, we fear it is not in the power of medicine to do it. However, let those who are determined to swallow the poison of fermented liquors, observe to take in their finishing glass half an ounce of antimonial wine and half an ounce of tincture of rhubarb.

MEDICATED BATHS.

HAVING treated upon the cold bath, the warm bath, and the vapour bath, we shall now consider those which are medicated.

Warm baths, impregnated with various medicinal substances, have been recommended for particular complaints, as being more effectual than any other baths.

If the intention of such baths is to produce their effects on the skin and external surface, we believe that these impregnated baths will hold a very high rank in point of utility; but if we look for benefit from the absorption of some salutary substance through the countless pores of the skin, as the wonderful cases recorded of their efficacy would dispose us to think, we candidly confess that, in this view, we hold them very lightly, and would rather ascribe their beneficial consequences, with Dr. Samuel Johnson, "to tepid moisture."

The marvellous cures said to have been performed by the medicated baths of M. Dominicetti excited much of the public attention. In a conversation with Dr. Johnson, in a mixed company, some person ventured to speak of their unrivalled excellence. The Doctor, with the penetration that he evinced on all subjects to which he applied his mind, treated them very lightly, and declared that "tepid moisture" was sufficient to account for all the good that accrued from them. The gentleman who asked his opinion, pertinaciously defended their superior medical uses; when the Doctor, with his usual sarcastic humour, that would confound those whom he could not convince, replied—"Well, Sir, be it so; and do you go to Dominicetti, and let him apply his bath to the peccant part—thy head."

We shall only briefly notice those impregnations which, by affecting the surface more essentially, relieve the internal indisposition.

THE SALT-WATER BATH.

We esteem this natural impregnated bath unrivalled for its effects on the system, from the equability of its temperature, from its density, and from the gentle irritation on the cuticular surface, perceived from the temporary pimples and spots which occur from its use.

AN ARTIFICIAL SALT-WATER BATH may be made by mixing a pound of common bay salt with every four gallons of water used for bathing.

THE ACID BATH.

A mixture of nitric acid and muriatic acid, or the aqua fortis and spirit of salts of the shops, has been found exceedingly useful in bilious disorders, especially by Dr. Scott, who long resided in India. Half an ounce of each acid may be previously mixed with a pint of water, and put into a wooden bucket that will contain two or three gallons of warm water. The feet and legs are to be immersed for half an hour, on going to bed. The acid may be increased half as much more by degrees, as it can be borne; or if its effects are unpleasant, the proportion of acids should be diminished. Dr. Scott supposes that sponging the body, or the extremities, will answer as well as the bath. He adds, that it increases the secretion of bile, often clears alimentary obstructions, and promotes a healthful perspiration. It occasionally affects the body with itching, a copper taste in the mouth, &c. which are only of transient duration, and exhibits its influence on the secretions.

In the vicinity of smelting houses it is common to impregnate the bath with the scoriæ of metals, as iron, copper, &c.

The pepper water of the Alps has been much celebrated for its use in bathing; it breaks out with great impetuosity in the early part of the year, and continues till autumn.

SULPHUREOUS BATHS.

The most celebrated natural springs are those of Harrowgate, in Yorkshire; and of Barege, in France, near the Pyrenees. A very good imitation of the first may be made by adding two ounces of sulphuret of potass to enough water for a bath, and

AN ARTIFICIAL BAREGE BATH, by dissolving the same quantity of sulphureted potass, and adding thereto a shred of soap.

These baths are particularly useful in eruptive and other cutaneous affections, and are not dangerous, as repellants are; for the source of the impurities is removed by the influence of the tepid bath, while the skin is cleansed of its blemishes by the healing virtues of the impregnations.

THE SHOWER BATH.

THIS may be used of any temperature, and its effects are similar in kind to bathing by immersion in water, but rather less in degree.

"I firmly believe," says Dr. Armstrong, "that the almost daily use of the shower bath is one of the best preventives of pulmonary consumption, by maintaining the tone of the superficial vessels. In all cases sea water is better than spring water."*

The machine for using it is a wooden box, resembling a sentry box, for the person to stand in, and having a reservoir of water at the top, which streams down over the body through minute perforations in the apparatus. A cheap substitute for it is a common garden watering pot.

The sensations derived from the shower bath are not so pleasant as from immersion, but it forms a very easy and useful succedaneum.

We have occasionally poured cold water in this way over the body when rising up out of the warm bath, and we can from experience say, that the glow is always stronger, and lasts longer, than we have found from any other mode of practice.

The height from which the stream

* Armstrong on pulmonary consumption, &c.

is poured may be increased, or the apertures of the apparatus enlarged, as the invalid requires to be affected with cold.

ANATOMY.

ARTICLE I.

THE human frame consists of fluids, which properly belong to the science of physiology; and of solids, consisting of bone, cartilage, ligament, fibre, membrane, vessel, artery, vein, nerve, muscle, gland, fat, and viscera.

A *bone* is that hard and solid substance, which forms the great framework of the human body.

A *cartilage* is that smooth, pliable, and elastic substance of a whitish or pearl colour, which covers the extremities of bones.

A *ligament* is a white, fibrous, compact substance, more pliable than a cartilage, difficult to be torn, and yielding very little when stretched.

Fibres are small and simple filaments; and are either membranous, fleshy, tendinous, or bony.

A *membrane* is a pliable net-work of fibres, interwoven in the same plane; and differ in thickness according to the smallness of fibres and number of planes. Such planes are called *laminæ*, and distinguished according to their situations.

Vessels are canals, more or less flexible, composed of different membranes termed *coats;* and are distinguished into blood-vessels, lacteal vessels, lymphatic vessels, &c. and the smallest of these are termed *capillaries*. The vessels which receive the blood from the heart, and distribute it through the body are *arteries*; and the vessels which bring the blood back to the heart are *veins*.

Arteries are distinguishable from veins in a dead body, by their greater thickness, and by their diameter being preserved when divided, owing to their elastic coat, and being always found empty, when the veins are not.

Nerves are the white chords which proceed from the cerebrum, cerebellum, and spinal marrow, and are ramified over all parts of the body.

Absorbents are vessels which take up and convey whatever fluid comes in contact with their orifices; and consist of the *lacteals* and *lymphatics*.

Muscles are masses of red fibres of various lengths: the middle portion of each muscle is fleshy; the extremities are called *tendinous;* and the glistening, tough, and inelastic substance issuing from them, is called *tendon*.

Glands are clusters of blood-vessels and nerves united together in different folds and intertextures, and invested with a membraneous covering. They separate from the mass of blood certain fluids, which they discharge either immediately, or by other vessels termed *excretory*.

Fat is an oily soft substance, collected between the skin and the muscles, in the interstices of the muscles, about the viscera, &c. and contained in a fine spongy net-work called the *cellular membrane*.

Viscera are parts contained in a great cavity, without being connected to it through their whole extent; such are the stomach, intestines, &c.

OF THE BONES IN GENERAL.

Bones are designed by nature to give shape and firmness to the human frame, to form levers for the muscles to act upon; and to defend from injury those parts which are most immediately necessary to life; as the brain, spinal marrow, heart, lungs, &c.

The fibres of a bone, when first formed, are soft and gelatinous; by the addition of solid matters they grow to the hardness of cartillage; and arrive at length at the state of perfect bone. This ossification depends on their vessels being so disposed, and of such diameters, as to separate a liquor which may easily turn into a bony substance, when it is deprived of its thinner parts.

Bones are greatly assisted in their induration, by the pressure of the great weights they support, and by the force of the parts they contain. In this process the ossifying matter sometimes shoots out of the bones,

and forms bony excrescences. There is in every long bone a large middle cavity, which contains an oily marrow, that connects and softens the fibres. The extreme ends of bones are articulated for the convenience of motion; and all bones are covered with a membrane, which upon the skull is called the *pericranium*, but on all other bones the *periosteum*.

THE SKELETON.

(See Plate marked No. 1.)

The skeleton is divided into the head, the trunk, the upper and the lower extremities.

The head is divided into the bones of the cranium, and the bones of the face.

The trunk is divided into the spine, the ribs, and the sternum or breast-bone.

The extremities into upper, which are the arms; and lower, which are the legs and thighs.

The following are the names of the bones of the skeleton, with the figures of reference to the Plate.

1. The frontal bone.
2. The parietal bone.—There is one similar on the other side.
3. The temporal bone.—There is one similar on the other side.
4. The occipital bone.
5. The zigomatic bone.
6. Maxillary, or upper-jaw bones.
7. The nasal bones—(two.)
8. The palate bone.
9. The inferior maxillary, or under-jaw bone.
10. The vertebræ, or back-bone.
11. The clavile, or collar-bone where it is united to the sternum, or breast-bone.
12. Where it is united with the shoulder bone.
13. The scapula, or shoulder bone.
14. The humerus, or bone of the upper arm.
15. The radius, or larger bone of the fore arm.
16. The ulna, or smaller bone of the fore arm.
17. The carpal bones. } A number of small bones forming the hand.
18. The meta carpal bones. } A number of small bones forming the hand.
19. The fingers. } A number of small bones forming the hand.
20. The centre of the sternum, or breast-bone.
21. The inferior end of the sternum.
22. The ribs.
23. The last of the vertebræ, or back-bone.
24. The ossa innominata, or hip bones.
25. The oss sacrum, or tail bone.
26. The oss coxygis, or last joint of the sacrum.
27. The femur, or thigh bone.
28. The patella, or cap-bone of the knee.
29. The fibula, or small bone of the leg.
30. The tibia, or great bone of the leg.
31. The calcis or heel bone. } A number of small bones forming the foot.
32. The tarsal bones. } A number of small bones forming the foot.
33. The meta tarsal bones. } A number of small bones forming the foot.
34. The toes. } A number of small bones forming the foot.

We shall at a future part of the work, treat of Anatony for the use of painters and sculptors, illustrated with plates.

SIMPLE THINGS WHICH PROMOTE DIGESTION.

SEA-SALT, spices, mustard, scurvy-grass, tongue-grass, horse-raddish, capers, water-cresses, cellery, old cheese, a little port wine, or a little spirits diluted.

WHAT RETARDS DIGESTION.

Water in any quantity, particularly when hot, all acids, astringents, Peruvian bark, (if taken after eating,) all oliagenous substances, and much spirits. Agitation of mind after eating, will also much retard digestion.

LYING IN BED WITH THE HEAD HIGH.

IT is often a question amongst people who are unacquainted with the anatomy and physiology of man, whether lying with the head exalted or even with the body was the most wholesome. Most consult their own ease in this point, and argue in favour of that which they prefer. Now although many delight in bolstering

up their heads at night, and sleep soundly without injury, yet we declare it to be a dangerous habit. The vessels through which the blood passes from the heart to the head, are always lessened in their cavities when the head is resting in bed higher than the body, therefore in all diseases attended with fever, the head should be pretty nearly on a level with the body; and people ought to accustom themselves to sleep thus to avoid danger.

OF THE DISEASES OF SUCH WHO STAND WHEN THEY ARE AT WORK.

In a foregoing part of our work, we treated upon the diseases of Tailors, and those who sit much. We now come to speak of those who stand all day long, such as carpenters, coopers, sawyers, engravers, blacksmiths, bricklayers, &c. In general, those who stand at work are subject chiefly to varices, or swellings in the veins of the legs; for the tonic motion of the muscles retards the course of the blood, upon which it stagnates in the veins and valves of the legs. How much the distension of the muscles contributes to retard the natural motion of the blood, is apparent to any one, who does but feel his own pulse when his arm is stretched out; for then he will find it very low and small. In the case now before us, the muscular fibres of the legs and the loins being stretched out, the arteries which run downwards are thereby pressed and straitened; so that their cavity being narrower, they do not push forward the blood with that force which takes place in walking, where the alternate motion of the muscles conspires to assist them.—Hence the blood, that returns from the arteries into the veins, does not receive the necessary force from the impulse of the arteries, to make it rise in a perpendicular line: so that, for want of the due impulse to back it, it stops, and produces varices in the legs.

Much standing likewise produces ulcers in the legs, a weakness in the joints, pains in the loins, and a bloody urine. Many servants, who attend upon gentlemen, complain of pain in the kidneys, for which they can assign no other cause but the continual standing; for when the body is in an erect posture, the fibres of the muscles of the loins must needs be bent, which necessarily affects the kidneys; so that the blood does not circulate so freely, nor the secretion of the serum proceed so regularly as it ought to do.

A weak stomach is likewise the companion of those who stand at work; for, in a standing posture the stomach hangs, whereas when we sit or bend our bodies, it rests upon the intestines; and for this reason, when we are seized with any disorder in the stomach, we naturally bend the whole body forward, and draw up our knees and legs. Bacon observes, that the galley-slaves are fat and well-complexioned, notwithstanding the misery of their condition, because they row in a sitting posture, and exercise the limbs more than the abdomen and the stomach. The same observation holds of weavers, who exercise their hands and their feet at once; for the moving of the external parts, and leaving the internal at rest, renders our bodies fatter and lustier than standing and walking, which are apt to tire us.

It is worth while to enquire how it comes to pass, that standing for a little while tires us more than either walking or running for a longer space of time. The common opinion is, that it is owing to the tonic motion of all the antagonist muscles, whether extended or bended. But this opinion is confuted by the learned Borelli, who demonstrates that the arm is stretched out without the action of the flexores, or bending muscles, only by the active force of the extenders; and that the case is the same in the erected posture of the body, where all the benders lie by, and only the extenders are employed to act.

This ingenious author imputes the cause of our being so soon tired with standing, to the continued and uninterrupted action of the same muscles;

for, he says, Nature delights in alternate and interpolated actions, and for that reason walking does not tire us so much; and those who stand alternately upon one foot at a time, are less tired than if they stood upon both feet at once. This tendency of nature we may plainly perceive in the beasts, particularly in pullets, who sometimes stand upon one foot, while they hold up and save the other; and in asses, who, upon long standing, are observed to rest one of their hinder feet in the stirrup. This alternate succession of action is agreeable to nature, not only in the motion of the body, but in almost all the natural functions; for if we look steadily upon one object, if we listen attentively to one sound, if the same meat be often served up at table, if our nostrils be long exposed to the same smells, we are uneasy; so much does nature delight in vicissitude and change. Accordingly we see the Jews, when they were fed with heavenly manna in the wilderness, began to long for the Egyptian garlic and onions. Thus Horace, in his Art of Poetry, expresses himself in the following beautiful manner:

Ridetur chorda, qui semper oberrat eadem.

Upon the whole, those tradesmen who are obliged to stand when they are at work, ought to shift their standing posture as often as they can, either by sitting now and then, or walking, or moving the body any other way. They will find benefit from whatever is apt to remove lassitude, and restore the spring of the parts, such as moist frictions, fomentations, and baths. As for the cure of the varices, the ulcers of the kidneys, ruptures, and similar disorders, they must consult practitioners.

The exercises of walking, running, dancing, and leaping, will be found great antidotes to the ills of standing much, and should be indulged in freely; but above all, cold bathing in summer, and warm in winter, will serve them. They should put their feet into warm water every night, and rub the soles of their feet well.

THE PLEURISY.

The pleurisy is chiefly known by these four symptoms,—a strong fever, a difficulty of breathing, a cough, and an acute pain about the breast.

The cause of this disease is usually sudden checking of perspiration by cold, and it is accompanied with a most acute pain under the ribs, which is commonly termed a stitch. This pain is felt indifferently over every part of the breast; though more commonly about the sides, under the more fleshy parts of the breast, and oftenest on the right side. The pain is greatly increased whenever the patient coughs, or draws in the air in breathing; and hence a dread of increasing it, which makes some patients forbear to cough or respire as much as they possibly can, aggravates the disease by stopping the course of the blood in the lungs, that are soon over-charged with it. Hence the inflammation of this bowel becomes general; the blood mounts up to the head; the countenance looks deeply red, or, as it were, livid; and the patient becomes nearly suffocated.

Sometimes the pain is so extremely violent, that if the cough be very urgent at the same, and the patient cannot suppress or restrain it, he is seized with convulsions, of which we have seen many instances, but these occur almost always to women; though they are much less subject than men to this disease, and indeed to all inflammatory ones. It may be proper, however, to observe here, that if women should be attacked with it during their monthly illnesses, that circumstance should not prevent the repeated and necessary bleedings, nor occasion any alteration in the treatment of the disease. And hence it appears, that pleurisy is really an inflammation of the lungs, accompanied with acute pain.

Sometimes an inflammation of the lungs is communicated also to that membrane, which lining the inside of the breast, is called the pleura; and from thence to the muscles, the fleshy parts, over and between the

ribs. This however is not very frequently the case.

Spring and Autumn are commonly the seasons most productive of pleurisies: in general there are few in Summer. The disease usually begins with a violent shivering, succeeded by a considerable heat, with a cough, and oppression, and sometimes with a sensible straitening or contraction, as it were, all over the breast; and also with a head-ache, a redness of the cheeks, and with retchings to vomit. The stitch does not always happen at the first onset: often not till several hours from the first complaint; sometimes not before the second or even the third day. In some cases the patient feels two stitches, in different parts of the side; though it seldom happens that they are equally sharp, and the lightest soon ceases. Sometimes also the stitch shifts its place, which promises well, if the part first attacked by it continues perfectly free from pain: but it has a dangerous appearance, if, while the first is present, another also supervene, and both continue. The pulse is usually very hard in this disease; but in very bad cases it becomes soft and small.—There often occurs at, or very quickly after the invasion, such an expectoration or hawking up as happens in an inflammation of the breast; at other times there is not the least appearance of it, whence such are named dry pleurisies, which happen very often. Sometimes the sick cough but little or not at all. They often lie more at ease upon the side affected, than on the sound one. Large hæmorrages, or bleedings from the nose frequently happen, to the great relief of the patient; but such discharges consist of a kind of corrupted blood, when the patient is very ill, and these are very unfavourable symptoms.

This disease is often produced by drinking cold water while a person is hot; from which cause it is sometimes so violent as to kill the patient in three hours. A young man was found dead at the side of a spring, from which he had quenched his thirst. Neither indeed is it uncommon for pleurisies to prove mortal within three days.

Sometimes the stitch disappears, whence the patient complains less: but at the same time his countenance changes; he grows pale and sad; his eyes look dull and heavy, and his pulse grows feeble. This signifies a translation of the disease to the brain,—a case which is almost constantly fatal.

There is no disease in which the critical symptoms are more violent and more strongly marked than in this. It is proper this should be known, as it may prevent or lessen our excessive terror. A perfect cure sometimes supervenes at the very moment when death was expected.

This malady is one of the most common and the most destroying kind, as well from its own violent nature, as through the pernicious treatment of it in country places. That prejudice which insists on curing all diseases by sweating, entirely regulates their conduct in treating a pleurisy; and as soon as a person is is afflicted with a stitch, all the hot medicines are immediately set to work. This mortal error destroys a number of people: and it is so much the more hurtful, as this disease is of the most violent kind; and because, as there is not commonly a moment to be lost, the whole depends on the method immediately recurred to.

The proper manner of treating this disease are by bleedings, softening and diluting drinks, purges, clysters, and blisters. These last perhaps are still more effectual in the pleurisy; and therefore they should be continually applied over the very stitch.

The first bleeding, especially if there have been a considerable discharge, almost constantly abates the stitch, and often entirely removes it: though it more commonly returns after an intermission of some hours, either in the same spot, or sometimes in another. This shifting of it is rather favourable, especially if the pain, that was first felt under the breast, shift into the shoulders, to the back, the shoulder-blade, or the nape of the neck.

When the stitch is not at all abated, or if after having abated, it return as violently as at first, and especially if it return in the same spot, and the height of the other symptoms continue, bleeding must be repeated. But if a sensible abatement of the stitch continue; and if, though it return, it should be in a smaller degree and by intervals, or in those places we have mentioned above; if the quickness or the hardness of the pulse, and all the other symptoms are sensibly diminished, this repeated bleeding may sometimes be omitted. Nevertheless, in a very strong subject it seems more prudent not to omit it, since in such circumstances it can do no mischief; and a considerable hazard may sometimes be incurred by the omission. In very high and dangerous pleurisies frequent bleeding is necessary, except some impediment to it should arise from the particular constitution of the patient, from his age, or some other circumstances.

If from the beginning of the disease, the pulse be but a little quicker and harder than in a healthy state; if it be not manifestly strong; if the head-ache and the stitch be so moderate as to prove supportable; if the cough be not too violent; if there be no sensible oppression or straitness; and the patient expectorate or cough up; bleeding may be omitted.

When the disease be not very acute and pressing, it has often been cured in a very few days by a single bleeding, and a large quantity of a tea or infusion of elder flowers, sweetened with honey.

In those dry pleurisies in which the stitch, the fever, and the head-ache, are strong and violent; and where the pulse is very hard and full, with an excessive dryness of the skin and of the tongue, bleeding should be frequently repeated, and at small intervals from each other. This method frequently cures the disease effectually, without using any other evacuation.

The pleurisy terminates, like any other inward inflammation, either by some evacuation; by an abscess; in a mortification; or in a scirrhosity or hard tumour; and it often leaves adhesions in the breast.

The gangrene or mortification sometimes appears on the third day without having been preceded by very vehement pains. In such cases the body after death often looks very black, especially in the parts near the seat of the disease; and in such the more superstitious ascribe it to some supernatural cause; or draw some unhappy presage from it, with respect to those who are yet unattacked by it. This appearance, however, is purely a natural consequence, quite simple, and cannot be otherwise; and the hot regimen and medicines are the most prevailing causes of it. We have seen it thus circumstanced in a man in the flower of his age who had taken Venice treacle in cherry water and wine.

It has been observed, that some persons who have been once attacked by this disease, are often liable to relapses of it, especially such as drink hard. A few bleedings at certain proper intervals might prevent these frequent returns of it; which joined to their excessive drinking, make them languid and stupid in the very flower of their age. They generally fall into some species of asthma, and from that into a dropsy, which proves the melancholy, though not an improper conclusion of their lives. Such as can confine themselves to some proper precautions may also prevent these frequent returns of this disease, even without bleeding; by a temperate regimen; by abstaining from time to time from eating flesh and drinking wine; at which times they should drink whey or some other light diet-drinks; and by bathing their legs sometimes in warm water; especially in those seasons when this disease is most likely to return.

Seneca rattle-snake root has been recommended, and we shall observe that the best way of exhibiting it is in decoction, by gradually simmering and boiling two ounces of it in gross powder, in two pints and a half of water, to a pint and a quarter; and then giving three spoonfuls of it to

an adult every six hours. If the stitch should continue or return after taking it, bleeding, which should be premised to it, must be occasionally repeated; though it seldom proves necessary after a few doses of it. It greatly promotes expectoration, keeps the body gently open, and sometimes operates by urine and perspiration; very seldom proving at all emetic in decoction. The regimen of drinks directed here in pleurisies is to be observed as usual. Dr. Tennant, the introducer of this valuable medicine, confided solely in it, without bleeding, blistering, or any other medicines.

Let the following points be observed as principles in the cure of pleurisy, and success will follow.

1. Bleed frequently until all pain cease.
2. Then put on a large blister over the part where the pain is.
3. Purge the patient with salts.
4. Give plenty of whey with a little nitre.

DROPPING OF THE ALMONDS OF THE EARS.

THIS affection is quite unconnected with the ears, although commonly named as above. It is nothing more than an enlargement of some of the glands situated under the jaw-bone, and very often occasioned by slight colds. To reduce these swellings, the following mixtures should be taken:

Take of tamarinds, an ounce; boil in half a pint of water;
Add to this a drachm of cream of tartar, five grains of rhubarb, and a little honey.
Take two table spoonfuls every hour till it purges.

Then gently rub the parts with a little of the following

LINIMENT.

Take two ounces of sweet oil;
Add to it two drachms of hartshorn, and shake well together.

CHRONIC COUGH,

OCCASIONED BY THE PALATE OF THE MOUTH BEING DOWN, OR ELONGATION OF THE UVULA.

WHEN, through relaxation, the uvula, (or that portion which appears suspended at the back of the palate,) becomes elongated, it is usually denominated a dropping of the palate of the mouth. Although this affection is not dangerous, yet it is disagreeable, and indicates that the constitution is not in a perfectly healthy state. The following case, detailed by an American physician, shows that sometimes the elongation of the uvula may be attended with serious consequence. We have never yet seen such happen; yet we think it very probable.

"A female, thirty years of age, born of healthy parents, and possessed herself of a healthy constitution, who had contracted a cough from frequent exposure to the vicissitudes of temperature, after a year's suffering, presented the following symptoms, notwithstanding the 'use of the most *heroic* and the most varied means which were considered proper for retarding the progress of a severe disorganization of the parenchyma of the lungs. The respiration was oppressed; a considerable constriction of the thorax existed; an acute, lancinating, and fugacious pains, increased on coughing and on full inspiration, were felt in that cavity; the patient was continually attempting to swallow or hawk up mucus from the throat; a fixed pain, accompanied with tickling, existed in the larynx; the appetite was almost null; the tongue was sometimes white and sometimes in a natural condition: her pale countenance, extreme emaciation, depressed condition, both moral and physical, seemed, however, to indicate the profound lesion of some important organ: the chest, carefully explored, resounded very well in every part, except at the upper portion, where the sound seemed a little dull: the pulse was sometimes small, unequal, and at other times frequent and full, and frequently changed in

less than half an hour to one or other of these conditions.'

"M. Cuynat, on examining the fauces, found the uvula elongated, loose on the base of the tongue, and distended with serous fluid. It occurred to him, that all the symptoms experienced by the patient were occasioned by the elongation of this appendix. All internal treatment was discontinued, and the superabundant portion of the uvula was cut off. Fifteen days had scarcely elapsed, before all the symptoms previously indicated had ceased: the patient was soon completely restored to health."

When this elongation is evident, which may be easily ascertained by looking into the throat, and by a peculiar sensation in swallowing, the following gargle should be made use of frequently in the day:

GARGLE FOR A DROPPING OF THE PALATE.

Take of decoction of bark, eight oz.
Of alum, half an ounce;
Of syrup of buckthorn, half an ounce;
Mix.

Besides this, small doses of rhubarb should be taken daily, so as to keep the bowels moderate.

TO PREVENT CONTAGION IN VISITING THE SICK

THERE are a great many arguments for and against the doctrine of contagion. With these, however, we do not now wish to mix; but upon the simple fact that people catch fevers by visiting sick chambers, give the best advice we can to prevent that occurrence. In the first place, then, we would recommend persons who visit those in fever, never to go into the room while in a perspiration; for the pores of the skin being then open, and the circulation of the blood more active, contagious matter or effluvia is more likely to be imbibed. Secondly, the room should be fumigated before entering, or well ventilated. Thirdly, never go close to the patient, nor take hold of the hand, nor stand the windward side of him. Fourthly, take the following draught on entering the sick chamber, or a little before:

DRAUGHT TO PREVENT CONTAGION.

Take of decoction of bark, half an oz.
Of tincture of bark, two drachms;
Mix.

The following is the opinion of the Editor of 'The Boston Medical Intelligencer,' upon the effects of bark in preventing contagion:—"It is not many years since we were placed in midst of a highly contagious and fatal epidemic. We then took constantly large quantities of bark; we mixed it with our tea and coffee morning and evening; and carried a phial of the tincture in our pockets, to take as we entered the chambers of the sick. It was to this precaution we had every reason to attribute our entire escape from the disease, though we were daily attending great numbers, who were exceedingly ill; and we have no doubt that not only the best preventive, but the most successful practice in yellow-fever, must be that which is based upon the same principle."

A LETTER

FROM SIGNIOR LEWIS CORNARO, TO THE RIGHT REV. BARBARO, PATRIARCH ELECT OF AQUIELIA.

CHAPTER IV.

THE METHOD OF ENJOYING A COMPLETE HAPPINESS IN OLD AGE.

MY LORD,

THE human understanding must certainly have something divine in its constitution and frame. How divine the invention of conversing with an absent friend, by the help of writing! How divinely is it contrived by nature, that men, though at a great distance, should see one another with the intellectual eye, as I now see your Lordship! By means of this contrivance, I shall endeavour to entertain

you with matters of the greatest moment. It is true, that I shall speak of nothing but what I have already mentioned. But it was not at the age of ninety-one, to which I have now attained; a thing I cannot help taking notice of, because, as I advance in years, the sounder and heartier I grow, to the amazement of the world. I, who can account for it, am bound to show, that a man may enjoy a terrestrial paradise after eighty, which I enjoy; but it is not to be obtained except by temperance and sobriety, virtues so acceptable to the Almighty, enemies to sensuality, and friends to reason.

Now, my Lord, to begin, I must tell you, that within these few days past, I have been visited by many of the learned doctors of this university, as well physicians as philosophers, who were well acquainted with my age, my life and manners; knowing how stout, hearty, and gay I was; and in what perfection all my senses still continued; likewise my memory, spirits, and understanding; and even my voice and teeth. They knew besides that I constantly employed eights hours every day in writing treatises with my own hand, on subjects useful to mankind, and spent many more in walking and singing. O, my Lord, how melodious my voice is grown! were you to hear me chaunt my prayers, and that to my lyre, after the example of David, I am certain it would give you great pleasure, my voice is so musical.—Now, when they told me that they had been already acquainted with all these particulars, they added, that it was indeed next to a miracle, how I could write so much, and upon subjects that required both judgment and spirit. And, indeed, my Lord, it is incredible what satisfaction and pleasure I have in these compositions. But as I write to be useful, your Lordship may easily conceive what pleasure I enjoyed. They concluded by telling me, that I ought not to be looked upon as a person advanced in years, since all my occupations were those of a young man, and by no means like those of other aged persons, who, when they have reached eighty, are reckoned decrepit. Such, moreover, are subject, some to the gout, some to sciatica, and some to other complaints, to be relieved from which they must undergo a number of painful operations, as cannot but render life extremely disagreeable. And if by chance, one of them happens to escape a long illness, his senses are impaired, and he cannot see or hear so well; or else fails in some one or other of the corporeal faculties; he cannot walk, or his hand shakes; and supposing him exempt from these bodily infirmities, his memory, his spirits, or his understanding fail him; he is not cheerful, pleasant, and happy within himself, as I am.

Besides all these blessings, I mentioned another which I enjoyed; and so great a blessing, that they were all amazed at it, since it is altogether beside the usual course of nature.—This blessing is, that I should pass fifty, in spite of a most powerful and mortal enemy I carry about me, and which I can by no means conquer, because it is natural, or an occult quality implanted in my body by nature; and this is, that every year, from the beginning of July to the end of August, I cannot drink any wine, of whatever kind or country; for besides being these two months quite disgustful to my palate, it disagrees with my stomach. Thus losing my milk, (for wine is indeed the milk of old age,) and having nothing to drink, for no change of preparation of waters can have the virtue of wine, nor of course do me any good: having nothing, I say, to drink, and my stomach being thereby disordered, I can eat but very little; and this spare diet, with the want of wine, reduces me, by the middle of August, extremely low; nor is the strongest capon broth or any other remedy of service to me; so that I am ready, through mere weakness, to sink into the grave. Hence they inferred, that were not the new wine (for I always take care to have some ready by the beginning of September) to come in so soon, I should be a

dead man. But what surprized them still more was, that this new wine should have power sufficient to restore me in two or three days, to that degree of health and strength, of which the old wine had robbed me: a fact they themselves had been eye witnesses of within these few days, and which a man must see to believe it; insomuch, that they could not help crying out; "Many of us, who are physicians, have visited him annually for several years past: and ten years ago, judged it impossible for him to live a year or two longer, considering what a mortal enemy he carried about him, and his advanced age; yet we do not find him so weak at present as he used to be." This singularity, and the many other blessings they see me enjoy, obliged them to confess, that the joining of such a number of favours was, with regard to me, a special grace conferred on me at my birth by nature, or by the stars; and to prove this to be a good conclusion, which it really is not, (because not grounded on strong and sufficient reasons, but merely on their own opinions,) they found themselves under a necessity to display their eloquence, and to say a great many fine things. Certain it is, my Lord, that eloquence, in men of bright parts, has great power; so great, as to induce people to believe things which have neither actual nor possible existence. I had, however, great pleasure and satisfaction in hearing them; for it must, no doubt, be a high entertainment to hear such men talk in that manner.

Another satisfaction, without the least mixture of alloy, I at the same time enjoyed, was to think, that age and experience are sufficient to make a man learned, who without them, would know nothing; nor is it surprising they should, since length of days is the foundation of true knowledge. Accordingly, it was by means of it alone I discovered their conclusion to be false. Thus you see, my Lord, how apt men are to deceive themselves in their judgment of things, when such judgment is not built upon a solid foundation. And, therefore, to undeceive them and set them right, I made answer, that their conclusion was false, as I should actually convince them, by proving that the happiness I enjoyed was not confined to me, but common to all mankind, and that every man might equally enjoy it; since I was but a mere mortal, composed like all others, of the four elements; and endued, besides existence and life, with sensible and intellectual faculties, which are common to all men. For it has pleased the Almighty to bestow on his favourite creature, man, these extraordinary blessings and favours above other animals, which enjoy only the sensible perceptions, in order that such blessings and favours may be the means of keeping him long in good health; so that length of days is a universal favour granted by the Deity, and not by nature and the stars.

But man being in his youthful days more of the sensual than of the rational animal, is apt to yield to sensible impressions; and when he afterwards arrives at the age of forty or fifty, he ought to consider, that he has attained the noon of life, by the vigour of youth and a good tone of stomach; natural blessings, which favoured him in ascending the hill; but that he must now think of going down, and approaching the grave, with a heavy weight of years on his back; and that old age is the reverse of youth, as much as order is the reverse of disorder. Hence it is requisite he should alter his mode of life in regard to the articles of eating and drinking, on which health and longevity depend. And as the first part of his life was sensual and irregular, the second should be the reverse, since nothing can subsist without order, especially the life of man: irregularity being, without all doubt, prejudicial, and regularity advantageous to the human species.

Besides, it is impossible in the nature of things, that the man, who is bent on indulging his palate and his appetite, should not be guilty of irregularity. Hence it was, that to avoid this vice, as soon as I found

myself arrived at maturer years, I embraced a regular and sober life. It is, no doubt, true, that I found some difficulty in compassing it, but in order to conquer this difficulty, I beseeched the Almighty to grant me the virtue of sobriety, well knowing that he would graciously hear my prayer. Then considering that when a man is about to undertake any thing of importance, which he knows he can compass, though not without difficulty, he may make it much easier to himself by being steady in his purpose: I pursued the same course; I endeavoured gradually to relinquish a disorderly life, and to suit myself insensibly to the rules of temperance; and thus it came to pass, that a sober and regular life no longer proved uneasy or disagreeable; though on account of the weakness of my constitution, I tied myself down to such strict rules in regard to the quantity and quality of what I eat and drink.

Others who happen to be blessed with a stronger temperament, may eat many other kinds of food, and in greater quantity; and so of wines; whereas, though their lives may still be sober, they will not be so confined as mine, but much more free. Now on hearing these arguments, and examining the reasons on which they are founded, they all agreed that I had advanced nothing but what was true. Indeed the youngest of them said, that though he could not but allow the favour or advantages, I had been speaking of, to be common to all mankind, yet I enjoyed the special grace of being able to relinquish with ease one kind of life, and embrace another; a thing which he knew by experience to be feasible; but as difficult to him, as it had proved easy to me.

To this I replied, that partaking of humanity like himself, I likewise found it a difficult task; but it did not become a person to shrink from a glorious but practicable undertaking, on account of the difficulties attending it, because in proportion to these difficulties, is the honour he acquires by it in the eye of man, and the merit in the sight of God. Our beneficent Creator is desirous, that as he originally favoured human nature with longevity, we should all enjoy the full advantage of his intentions; knowing that when a man has passed the age of eighty, he is entirely exempt from the bitter fruits of sensual enjoyments, and governed by the dictates of reason. Vice and immorality must then leave him; hence God is willing he should live to a full maturity of years; and has ordained, that whoever reaches his natural term should end his days without sickness, by mere dissolution, the natural way of quitting this mortal life to enter upon immortality, as will be my case. For I am sure to die chanting my prayers; nor do the dreadful thoughts of death give me the least uneasiness, though considering my great age, it cannot be far distant, knowing as I do, that I was born to die, and reflecting that such numbers have departed this life without reaching my age.

Nor does that other thought, inseparable from the former, namely, the fear of those torments, to which wicked men are hereafter liable, give me any uneasiness, because I am a good Christian, and bound to believe that I shall be saved by the virtue of the most sacred blood of Christ, which he has vouchsafed to shed, in order to free us from those torments. How beautiful the life I lead! how happy my end! To this the young gentleman, my antagonist, had nothing to reply, but that he was resolved to embrace a sober life, in order to follow my example; and that he had taken another more important resolution, which was, that as he had been always very desirous to live to be old, so he was now equally impatient to reach that period, the sooner to enjoy the felicity of old age.

The great desire I had, my Lord, to converse with you at this distance, has forced me to be prolix, and still obliges me to proceed, though not much further. There are many sensualists, my Lord, who say that I have thrown away my time and trou-

ble in writing a Treatise on Temperance, and other discourses on the same subject, to induce men to lead a regular life; alleging that it is impossible to conform to it, so that my treatise must answer as little purpose as that of Plato on Government, who took a great deal of pains to recommend a thing impracticable; whence they inferred, that as his treatise was of no use, mine will share the same fate. Now this surprises me the more, as they may see by my treatise, that I had led a sober life for many years before I had composed it; and that I should never have composed it, had I not previously been convinced, that it was such a life as man might lead; and being a virtuous life, would be of great service to him; so that I thought myself under an obligation to represent it in a true light. I have the satisfaction now to hear, that numbers on seeing my treatise have embraced such a life; and I have read that many in times past, have actually led it; so that the objection Plato's Treatise on Government is liable to, can be of no force against mine. But such sensualists, enemies to reason, and slaves to their passions, ought to think themselves well off, if whilst they study to indulge their palates and their appetites, they do not contract long and painful diseases, and are not many of them overtaken by an untimely death.

TREATMENT IN CASES OF POISON.

BY DR. WEBSTER, OF PHILADELPHIA.

POISONING BY CANTHARIDES.

VOMITING should be excited by mild diluent drinks, as sugar and water, barley water, linseed tea, &c. or sweet oil may be taken. For the inflammatory symptoms, the usual depletory measures must be had recourse to, and emollient clysters should be freely administered. "Camphor dissolved in oil may be rubbed over the belly and on the thighs." Should it have been taken in the form of powder, it may be detected by its peculiar lustre in the matters discharged.

VEGETABLE POISONS.

With respect to the treatment, our first object will be to endeavour to evacuate the contents of the stomach; for this purpose we must resort to the employment of emetic. Sulphate of zinc would seem the most proper, but ipecacuanha, and tartarized antimony have been highly recommended.—Their operation should be aided by a very free use of large quantities of warm beverages, as barley water, mucilaginous drinks, &c.; at the same time that the fauces are to be tickled with a feather. "A tobacco cataplasm should be laid over the epigastrium." The tepid bath, with emollient injections, must also be employed. Should these means not succeed, we must endeavour to pump out the contents of the stomach.—When we have completely evacuated the stomach, it may perhaps be necessary to clear the alimentary canal of its contents; with this view we should administer a brisk cathartic. In order to relieve the severe pain in the abdomen, it will be proper to employ fomentations, and local abstraction of blood by cups or by leeches.

It not unfrequently happens, when the stomach has been completely evacuated, that the effects of the poison do not disappear. In such cases we must order the person to stir about. Strong coffee, or diluted vinegar, should be given freely. "Camphor mixture with æther may be taken frequently, and if insensibility be considerable, warmth, friction, and blisters may be employed." Should inflammation supervene, we must recur to bleeding, purging, fomentations, and lowest possible diet.

NARCOTIC POISONS.

In as much as the same objects are to be attained, the same course of treatment is to be pursued in this as in the former class. Should the stupor or drowsiness (peculiar to this class) remain the same after these

means have been employed, topical bleeding by cups, or from the jugular vein, should be tried, aided by blisters to the head and extremities, together with warm stimulating frictions. What we before said of the fewilla cordifolia, is applicable in this place; it will be recollected that it must be in "as recent a state as possible."

MERCURY.

Called to a person who is suspected to have taken corrosive sublimate, we must endeavour to promote vomiting by the administration of very large quantities of diluent drinks, as fresh milk, gum arabic water, barley water, gruel, &c. Since the experiments of M. Orfila, the antidotal powders of albumen have been fully established by repeated trials. Consequently, we should at the same time give the whites of eggs in large quantities, beaten up with water. Should we fail by these means, and inflammatory symptoms require it, the antiphlogiston measures must be employed.

ARSENIC.

It is recommended in these cases, to endeavour to promote vomiting by the exhibition of an emetic of sulphate of zinc or ipecacuanha, assisted by drinking large quantities of sweetened waters, decoction of linseed, mallows, and other emollient drinks. Lime water with sugar, or chalk and water, have been highly recommended to be drank freely, where the arsenic has been taken in solution.—Milk, according to Mr. Navier, has a peculiar efficacy in dissolving arsenic.

Numerous articles have been recommended as antidotes to arsenic; as liver of sulphur, charcoal, vegetable decoctions, &c. According to Orfila, however, "they ought not to be used, because they are not only useless, but often injurious." We are not to neglect the general treatment; for this purpose, clysters, bleeding local and general, warm fomentations, with frequent emollient clysters, &c. must be had recourse to. When the symptoms have subsided, the patient should be put upon a light nutritive diet, as chicken broth, gruel, &c.; solid food must not be given.

MINERAL ACIDS.

Large quantities of dissolved soap and chalk should be drank, or mix an ounce of calcined magnesia with a quart of water, of which give a tumbler full every few minutes. Endeavour to promote vomiting by tickling the fauces. If oxalic acid has been taken, chalk and water must be given in preference.—When the poison is evacuated, give diluent drinks, as gruel, milk, &c. together with injections of the same. Inflammatory symptoms are to be treated on general principles. Water alone should never be given, when sulphuric acid has been taken, as "intense heat is generated by the mixture."

CONCISE AND USEFUL REMARKS ON APOPLEXY.

CULLEN defines this disease to be a loss of the whole external and internal senses, and in some degree the power of voluntary motion, while respiration and the motion of the heart continue to be performed. When the patient appears to his friends to be in perfect health, and to bid fair for long life, he is sometimes struck dead instantaneously, without a sigh or a groan. Hence the disease acquires its name.

Apoplexy attacks both sexes, and sometimes persons in youth and in middle age; but most commonly it affects those advanced in life, and especially those above sixty years of age. It is to be observed that persons who have large heads and short necks, especially if they be of irritable habit, are more predisposed to this disease than others. It attacks persons who are corpulent, lead an inactive life, make use of a full diet, or drink to excess. Men who have long laboured under a frequent and copious discharge of blood from piles, upon either the suppression or spontaneous ceasing of that discharge,

are peculiarly liable to be affected with apoplexy.

It is most common in cold winters, or warm springs succeding to cold winters. The attack is frequently instantaneous; but it is also often gradual. Carlisle, in his "Essay on Old Age," remarks that he never saw an instance of apoplexy until many previous intimations. Sometimes confusion of ideas, flushings of the face, head-ache, nausea, drowsiness, and starting in sleep, are observed in succession.

This affection is on its accession generally denoted by a bloated tumidity, suffusion, deep flushing or lividity of the countenance. The expression is changed or lost. The temperature of the surface is at first unaltered, but soon becomes hot and feverish: the pupils of the eyes are contracted: the eyes are occasionally closed: the patient often lies without apparent motion. Sometimes there are spasmodic or convulsive movements of the face, or of some part of the body or limbs; sometimes one side of the face or body is convulsed while the other is in a state of paralysis. In general, the limbs are sensible to the stimulus of pricking or pinching; unless there be a complete paralysis, the most profound apoplectic generally starts when pricked by the lancet in bleeding; and Cheyne observes, he thinks he has seen a patient in apoplexy start when a door was shut with noise. Respiration becomes slow and irregular, sometimes convulsive, and lastly, interrupted; this last state of the respiratory function is considered by Cheyne as the most dangerous symptom.

The patient is no sooner seized, than the pulse becomes slow and full. When slow it is generally unequal. The heat of the body is much increased, and a profuse perspiration has been forced from its whole surface. Sometimes, after the attack, the countenance becomes less flushed, paler, fallen, without expression, and distorted; and the appearance of coma is still more remarkable than before. The pupils are much, perhaps unequally, dilated, and the eye becomes dull, opaque, and flaccid. The state of paralysis and insensibility to external stimuli is increased. The cheeks, nose, and extremities, become cold; and there is frequently a cold clammy perspiration. The respiration now becomes slower and much more irregular; the pulse more frequent and feeble, but is still unequal and irregular. The fœces and urine are often passed at this period unconsciously and involuntarily. During the whole progress of an attack of apoplexy, the patient does not usually swallow a morsel, nor even a drop of any kind of liquid; but there are some cases in which a palateable draught will be swallowed and a nauseous one rejected.

As death approaches, the organs of sense entirely lose their faculty of receiving impressions; no kind of excitation affects the patient, and convulsions close the scene.

The immediate cause of apoplexy is most generally a compression on the brain, produced either by external violence, tumours, an accumulation of blood in the vessels of the head, distending them to such a degree as to produce compression, or by an effusion of blood from the red vessel, which is accumulated in sufficient quantity to occasion compression.—Dr. Cullen supposes the proximate cause to be whatever interrupts the motion of the nervous power from the brain to the muscles of voluntary motion, or destroys the mobility of that power. Hall considers the principal cause of apoplexy to be hereditary disposition, the sanguineous or phlegmatic temperament, shortness of stature, corpulency or debility, violent passions of the mind, sorrow, intemperance and gluttony, indolence, and old age.

Apoplexy may be distinguished from palsy by the suspension of the whole of the powers of sense and voluntary motion. It is chiefly by the continuation of the action of the heart, arteries, and lungs, that it is to be distinguished from fainting. It differs from natural sleep by coming on suddenly, and by the difficulty or impossibility of rousing the patient.

Drunkenness exhibits phenomena so similar to those of this disease, that they have sometimes misled physicians of experience, when called to persons of whom no account could be given. Where the breath is tainted with the liquor taken, the cause is sufficiently apparent; but in other cases, as ebriety from strong beer, &c. the breath does not afford this distinguishing mark. The patient in apoplexy cannot be roused by shouting in his ear, nor by shaking and pinching him. His respiration is slow, labouring, and irregular, his pupils contracted, and his breath not tainted with the smell of liquor: yet is the extreme insensibility from intoxication sometimes distinguished with difficulty from that which constitutes apoplexy.

Appearances like those of apoplexy have been brought on by overloading the stomach with food difficult to digest. In this case the patient often exhibits signs of oppression or uneasiness of his stomach, and the pulse is not so slow and full as in apoplexy.

A very slow or a very frequent pulse is unfavourable, and Cheyne remarks, he never feels an irregular and unequal pulse without the utmost dread, and that we may consider the patient as lost, when the pulse has become quick and thready. The greatest danger is to be apprehended when the patient is seized with convulsions. When the patient has lost the power of deglutition, it denotes a violent disease. A very unfavourable opinion is also drawn from the patient's often putting his hand to his head. "Certainly, (says Cheyne,) I have not known a patient recover, who in the beginning of the attack, complained of a sudden pain in his head." Finally, when there is a cold clammy perspiration, the face having a cadaverous appearance, the eyes flaccid and dull, there is scarcely any hope of recovery.

The more favourable symptoms are a return of sensibility, or of any usual evacuation when that has ceased; together with a gentle and equable perspiration, and copious discharges of urine containing a sediment. Spontaneous evacuations from the bowels, and violent spontaneous vomiting, have brought on a favourable crisis of the disease.

TREATMENT.

The cure divides itself into two parts: the first is to relieve the patient during the fit: the second, to prevent its return. To answer the first indications, we resort to—

1. Blood-letting.
2. Emetics and purges.
3. External applications.

OF BLOOD-LETTING.

1. This is not only the most effectual remedy in apoplexy, but is much more effectual than all the others in use. When a patient labours under an apoplectic stroke, he ought immediately to have a large quantity of blood drawn from him. If the first has not been of service, a second and third bleeding should be practised. Cheyne observes that from six to eight pounds of blood were taken from a person by no means robust, before the disease, which ended favourably, began to yield. He also tells us of a person, who, while under every symptom of impending apoplexy, was twice relieved by hæmorrhage from the nose to the amount of several quarts.—Blood should be drawn from the temporal artery, the jugular vein, or a large vein in the arm. Blood-letting from the lower extremities, as it makes less impression on the circulation, is only to be recommended when blood cannot be procured from the neck or arm. The quantity of blood to be drawn must depend upon the violence of the attack, the appearances of the blood drawn, and otheir circumstances. When the pulse and breathing become more natural after blood-letting, we are taught to hope for a speedy crisis of the disease.

OF EMETICS AND PURGES.

2. Emetics are made use of by some physicians. Sydenham recommended their use in apoplexy; but it is now generally allowed that they are at best a doubtful remedy, and should never be ordered but in cases where

apoplexy is only threatened from surfeit; and in those cases the mildest means of inducing vomiting should be made use of. These are, a weak infusion of camomile, tepid water, or tickling the fauces with a feather. In a confirmed apoplexy, even these methods cannot be employed with safety. Even in cases where an emetic is indicated, probably relief would be afforded, and with less danger, by purges and enemas. Cheyne advises that an enema of salt and water or of soap, be immediately injected in an attack of apoplexy.

Purges are of the greatest service in this disease, and they should be of a powerful kind. Great relief is generally afforded the head by the operation of active cathartics. These should be repeated at intervals until the intestinal canal is entirely evacuated. Calomel is the most suitable medicine. It should be given to the patient as soon as he can be made to swallow, and ought to be followed by an infusion of senna and some of the neutral salts.

EXTERNAL APPLICATIONS.

3. Blistering has been recommended by most authors who have written upon apoplexy; but by Cheyne it is considered a remedy inferior to cold applications. He remarks that he never saw a patient relieved by blistering. He recommends the blister to be applied to the neck rather than the head, and to shave the head and expose it to a current of cool air, at the same time applying warmth to the extremities. In some violent cases, cataplasms of mustard and other stimulating substances, applied to the palms of the hands and soles of the feet, have been found useful.

CAUTIONS AGAINST APOPLEXY.

We shall now consider the method of preventing the fits. Persons predisposed to this disease from plethora, should observe temperance in eating and drinking, abstaining from all high-seasoned food and from meat suppers. Violent exertion of every kind should be avoided: riding or walking is the best exercise: sudden passions of the mind are to be avoided. Nothing tight should be worn about the neck, and when in bed the head ought to be supported at a proper height.—Cold and wet feet and all the occasional causes, are to be avoided. Persons pre-disposed to apoplexy, should be careful to keep the bowels open by some gentle laxatives taken occasionally. Issues and setons have been found useful when applied to the nape of the neck. If the precursory symptoms should occur, notwithstanding the means to obviate them have been used, the person should lose blood, take a purge, and confine himself to a vegetable diet, or avoid solid food and take liquid nourishment.

CAUTION IN USING THE WARM BATH.

THERE are many families who have not a thermometer to regulate the heat of a warm bath, and in consequence, not being able to find a substitute, have suffered much by using it above the proper temperature.—The precautions then to be taken where there is no thermometer is to try the heat by the upper part of the arm, dipping the whole of the arm into the water, and if no more than an agreeable heat be felt, having retained the arm in it a short time, the bath may then be safely used. The hand is not sufficient to try the heat of it; for the skin thereon being much thicker than that of the arm, the sensation of heat cannot be so plainly felt. The danger of putting a weakly person into a bath overheated are very great, and therefore too much caution cannot be taken upon this point.

DISEASES FROM OVER-EATING.

THESE are very common, much more so than people think, and the habits which in general give rise to them originate in infancy.

The diseases arising from over-distending the stomach are two: the first

is a consequence of temporary satiety, and is easily removed by emetics and purgative medicines; but which if not alleviated in due time, frequently produces stupor and apoplexy: the second proceeds from accustomed abstinence, from exercise, accompanied with an habitual mode of inclining the body forwards, as observable in the occupations of shoemakers, tailors, clerks, or accomptants, as well as those of literary habits in general.

Women, some years ago, from the pressure of their stays, were frequent sufferers; the fashion, however, of the present day is not so inconvenient, though it still occasionally happens with those who sit long stooping to needle-work. By this proclination or forward-bent position of the body, the contents of the chest and abdomen are, for many hours in the day, unduly compressed together; the margin of the ribs is forced upwards, so as to drive the stomach against the diaphragm, and to impede the passage into the stomach; at the same time, all the adjoining organs, the blood-vessels and excretory ducts (outlets) partake of the general injury from the compression, and thereby concur to bring on affections of the lungs, or permanent disease in the large vessels near the heart, as well as more extensive and deeply-seated mischief in the stomach, which, independently, sympathizes with every part of the animal machine.

We would recommend those who sit much at the desk, to abolish the custom of using *low* desks, and write at those which are up to their breast, so as to prevent stooping.

SYMPTOMS OF DISEASE IN THE STOMACH.

The symptoms which more particularly indicate disease of the stomach from the preceding causes, are a nauseous taste in the mouth, with furred tongue; pain in the region of the upper part of the stomach, frequent sickness and vomiting, and sense of weight and pain, increased on pressure at the pit of the stomach, and costiveness. From the want of free passage through the upper orifice of the stomach, it becomes loaded with viscous matter, the countenance becomes pale, wan, and sallow; blackness very shortly shews itself under the eyelids; a jaundiced tint frequently appears, from an obstruction to the free secretion or passage of the bile, with the occurrence of all the other common symptoms of indigestion.

TREATMENT OF DISEASES OF THE STOMACH FROM THE PRECEDING CAUSES.

The first and most important step to obviate disease of the stomach, originating in a constant proclination of the body is, where the occupation of the patient will admit of it, and which is the sole cause of the disease, to discontinue the practice. From the force of habit, as well as individual avocations, directions are seldom sufficiently or conveniently attended to. Where the cause has been of long standing, or where there may have existed frequent repetitions of the attack, and the lungs, liver, and other viscera, become wholly or partially affected, the treatment must be adapted to the state of those parts. Daily exercise on horseback will do much good; and many a worthy tradesman, from having entered into some corps of volunteers, has learnt to carry his person better, and been afterwards free from this complaint; whilst, before he had the drill-serjeant's assistance, it was difficult to make him stand erect at any time.

That state of stomach, which, from being over-filled, brings on apoplectic symptoms, is one which requires the instantaneous exhibition of the most active emetics; for this purpose, that most usually resorted to, is a strong solution of vitriolated zinc (white lead 20 grains; water 2 ounces.) This is esteemed, in these cases, (or, indeed, where poison has been swallowed,) preferable to any of the preparations of antimony; in consequence of the latter, even in very large doses, in torpid states of the stomach, pro-

ducing no emetic effect at all, (a state, in fact, which is the most alarming symptom;) though the patient may be thrown by it into a violent debilitating perspiration; and the opportunity of relieving his stomach, and of saving his life, may be lost for ever.

As soon as the stomach is relieved by the timely administration of the above emetic, and the efforts to vomit have subsided, a large dose of some purgative medicine should be given; (i. e. calomel, five grains, jalap a scruple.) The exhaustion of the power of the stomach, in its turn, should afterwards be attempted to be recovered, by a regimen of warm and acrid stimulants, such as mustard, horse-radish, garlic, and onions;—with the occasional use of the following pills:—

Take socotrine aloes, gum assafœtida, of each, one scruple,
Calomel, ten grains,
Oil of mint, five drops,
Spanish soap enough to form the whole into a mass.

Of which make fifteen pills; take two or three for a dose: also bitter infusions, particularly the decoction of bark, with diluted sulphuric acid.

SWOONINGS AND FAINTINGS.

THERE are many degrees of swooning, or fainting away; the slightest is that in which the patient constantly perceives and understands, yet without the power of speaking. This is called a fainting, which happens very often to vapourish persons, and without any remarkable alteration of the pulse.

If the patient entirely lose the sensation of feeling and understanding, with a very considerable sinking of the pulse, this is called a syncope, and is the second degree of swooning.

But if this syncope is so violent that the pulse seems wholly extinguished; without any discernable breathing; with a manifest coldness of the whole body; and a wanly livid countenance, it constitutes a third and last degree, which is the true image of death, that in effect sometimes attends it, and it is called an aphixy, which may signify a total resolution.

Swoonings result from many different causes, of which we shall only enumerate the principal; and these are,

1. Too large a quantity of blood.
2. A defect or insufficient proportion of it, and a general weakness.
3. A load at and violent disorders of the stomach.
4. Nervous maladies.
5. The passions.
6. Some kinds of diseases.

OF SWOONINGS OCCASIONED BY EXCESS OF BLOOD.

An excessive quantity of blood is frequently a cause of swooning; and it may be inferred that it is owing to this cause when it attacks sanguine, hearty, and robust persons; and more especially when it attacks them after being combined with any additional or supervening cause, that suddenly increased the motion of the blood; such as heating meats or drinks, wine, spirituous liquors; smaller drinks, if taken very hot and plentifully, such as coffee, Indian tea, balm tea, and the like; a long exposure to the hot sun, or being detained in a very hot place; much and violent exercise; over intense and assiduous study or application, or some excessive passion.

In such cases, 1st the patient should be made to smell to, or even to snuff up some vinegar; and his forehead, his temples, and his wrists should be bathed with it; adding an equal quantity of warm water if at hand. Bathing them with distilled or spirituous liquids would be prejudicial in this kind of swooning.

2. The patient should be made, if possible, to swallow two or three spoonfuls of vinegar, with four or five times as much water.

3. If the fainting prove obstinate, that is, if it continue longer than a quarter of an hour, or degenerate into a syncope, an abolition of feeling and understanding, he must be bled in

the arm, which will quickly revive him.

4. After the bleeding, the injection of a clyster will be highly proper; and then the patient should be kept still and calm, only letting him drink every half hour some cups of elder-flower tea or common tea, with the addition of a little sugar.

When swoonings which result from this cause occur frequently in the same person, he should, in order to escape them, pursue the directions to persons who superabound with blood; to be found in another part of this work.

The very same cause or causes which occasion these swoonings, also frequently produce violent palpitations, under the same circumstances; the palpitation often preceding or following the swooning.

OF SWOONINGS OCCASIONED BY WEAKNESS.

If too great a quantity of blood, which may be considered as some excess of health, be sometimess the cause of swooning, this last is oftener the effect of a very contrary cause, that is, of a want of blood, or an exhaustion of too much.

This sort of swooning happens after great hæmorrhages, or discharges of blood; after sudden or excessive evacuations, such as one of some hours continuance in a cholera-morbus; or such as are more slow, but of longer duration, as for instance, after an inveterate diarrhœa, or purging; excessive perspirations; a flood of urine; such excesses as tend to exhaust nature; obstinate wakefulness; a long inappetency, which by depriving the body of its necessary sustenance, is attended with the same consequence as profuse evacuations.

These different causes of swooning should be opposed by the means and remedies adapted to each of them.—A detail of all these would be improper here; but the assistances that are necessary at the time of swooning are nearly the same for all cases of this class; excepting for that attending a great loss of blood.

1. The patients should be laid down on a bed, and being covered, should have their legs and thighs, their arms, and their whole bodies, rubbed strongly with hot flannels; and no ligature should remain on any part of them.

2. They should have very pungent things to smell or snuff up, such as the carmelite water, Hungary water, smelling salts, spirit of sal ammoniac, strong smelling herbs, such as rue, sage, rosemary, mint, wormwood, and the like.

3. These should be conveyed into their mouths, and they should be forced, if possible, to swallow some drops of hot wine or of brandy, or of some other potable liquor, mixed with a little water; while some hot wine mixed with sugar and cinnamon, which makes one of the best cordials, is getting ready.

4. A compress of flannel, or of some other woollen stuff, dipped in hot wine, in which some aromatic herb has been steeped, must be applied to the pit of the stomach.

5. If the swooning seem likely to continue, the patient must be put into a well heated bed, which has before been perfumed with burning sugar and cinnamon; the frictions of the whole body with hot flannels being still continued.

6. As soon as the patient can swallow, he should take some soup or broth, with the yolk of an egg; or a little bread or biscuit soaked in the hot spiced wine.

7. During the whole time that all other precautions are taken to oppose the cause of the swooning, care must be had for some days to prevent any deliquium or fainting, by giving them often, and but little at a time, some light yet strengthening nourishment, such as panada made with soup instead of water, new-laid eggs very lightly poached, light roast meats with sweet sauce, chocolate, soups of the most nourishing meats, jellies, milk, &c.

Those swoonings which are the effect of bleeding, or of the violent operation of some purge, are to be ranged in this class.

Such as happen after artificial bleeding, are generally very moderate, com-

monly terminating as soon as the patient is laid upon the bed; and persons subject to this kind should be bled lying down in order to prevent it. But should the fainting continue longer than usual, some vinegar smelled to, and a little swallowed with some water, is a very good remedy.

We shall speak hereafter of faintings occasioned by uneasiness at the stomach, nervous swoonings, and swoonings from passion.

OBSERVATIONS ON THE CAUSES WHICH AGGRAVATE THE DISEASES OF THE PEOPLE.

THAT bad regimen and habits arising from popular prejudices, are of the greatest injury to those labouring under active disease, there can be no doubt; and to remedy so great an evil, we shall make a few observations, conceiving it to be a subject of the greatest importance to the public—far more so than the application of medicine in disease.

There is a prevailing prejudice among them, which is every year attended with the deaths of some hundreds; and it is this—that all disorders are cured by sweat; and that to procure sweat, they must take abundance of hot and heating things, and keep themselves very hot. This is a mistake in both respects, very fatal to the population of the state; and it cannot be too widely inculcated, that by thus endeavouring to force sweating at the very commencement of a disease, they are, with great probability, taking pains to kill themselves. We have seen some cases in which the continual care to provoke this sweating, has as manifestly killed the patient, as if a ball had been shot through his brains; as such a precipitate and untimely discharge carries off the thinner part of the blood, leaving the mass more dry, more viscid and inflamed.

But supposing it were as certain as it is erroneous, that sweating were beneficial at the commencement of diseases, the means which they use to excite it would not prove the less fatal. The first endeavour is, to stifle the patient with the heat of a close apartment and a load of covering. Extraordinary care is taken to prevent a breath of fresh air from getting into the room; from which circumstance, the air already in it is speedily and extremely corrupted; and such a degree of heat is procured by the weight of the patient's bed-clothes, that these two causes alone are sufficient to excite a most ardent fever, and an inflammation of the breast, even in a healthy man. More than once have we found ourselves seized with a difficulty of breathing on entering such chambers, from which we have been immediately relieved, on obliging them to open all the windows. Persons of education must find a pleasure, we conceive, in making people understand on these occasions, which are so frequent, that the air being more indispensably necessary to us, if possible, than water is to a fish, our health must immediately suffer, whenever that ceases to be pure; and assuring them also, that nothing corrupts it sooner than those vapours which continually steam from the bodies of many persons inclosed within a little chamber, from which the air is excluded. The absurdity of such conduct is a self-evident certainty; let in a little fresh air on these miserable patients, and lessen the oppressive burthen of their coverings, and you generally see upon the spot their fever and oppression, their anguish and raving, to abate.

The second method taken to raise a sweat in these patients, is, to give them nothing but hot things, especially Venice treacle, cordials, wines, &c. besides saffron, which is still more pernicious. In all feverish disorders we should gently cool and keep the bowels moderately open; but the medicines just mentioned heat and bind, and hence we may judge of their inevitable consequences. A healthy person would certainly be seized with an inflammatory fever, on taking the same quantity of wine, or of Venice treacle, which the peasant

takes now and then, when he is attacked by one of these disorders.—How then should a sick person escape dying by them? Die indeed he generally does, and sometimes with astonishing speed.

We shall be told, perhaps, that diseases are often carried off by perspiration, and that we ought to be guided by experience. To this we answer, it is very true that perspiring cures some particular disorders at their very onset; for instance, those stitches that are called spurious or false pleurisies, some rheumatic pains, and some colds. But this only happens when the disorders depend solely and simply on stopped or abated perspiration, to which such pain instantly succeeds; where immediately, before the fever has thickened the blood and inflamed the vessels, some warm drinks are given, which by restoring transpiration, remove the very cause of the disorder. Nevertheless, even in such a case, great care should be taken not to raise too violent a commotion in the blood, which would rather restrain than promote perspiration; to effect which, hot whey and nitre are preferable to any thing else. Perspiring is also of service in diseases, when their causes are extinguished as it were by plentiful dilution: then indeed it relieves by drawing off with itself some part of the distempered humours; which being affected, their grosser parts have passed off by stool and urine: besides which, the perspiration has also served to carry off that extraordinary quantity of water we were obliged to convey into the blood, and which was become superfluous there. Under such circumstances, and at such a juncture, it is of the utmost importance indeed not to check the perspiration, whether by choice or for want of care. There might often be as much danger in doing this, as there would have been in endeavouring to force a perspiration immediately upon the invasion of the disorder; since the arresting of this discharge, under the preceding circumstances, might frequently occasion a more dangerous distemper, by repelling the humours on some inward vital part. As much care therefore should be taken not to check imprudently that evacuation by the skin, which naturally occurs towards the conclusion of diseases, as not to force it at their beginning; the former being almost constantly beneficial, and the latter as constantly pernicious. Besides, were it even necessary, it might be very dangerous to force it violently; since by heating the patient greatly, a vehement fever is excited; they become scorched up in a manner, and the skin proves extremely dry. In short, warm whey and nitre is the best of sudorifics.

If the sick be sweated very plentifully for a day or two, which may make them easier for some hours, these perspirations soon terminate, and cannot be excited again by the same medicines. The dose thence is doubled,—the inflammation is increased, and the patient expires in terrible anguish, with all the marks of a general inflammation. His death is ascribed to his want of perspiration; when it really was the consequence of his perspiring too much at first, and of his taking wine and hot sudorifics.

Red wine binds up more than white wine. It does not promote urine as well; but increases the force of the circulating arteries, and the thickness of the blood, which were already too considerable.

Their diseases are also further aggravated by the food that is generally given them. They must undoubtedly prove weak in consequence of their being sick; and the ridiculous fear of the patient's dying of weakness, disposes their friends to force them to eat; which increasing their disorder, and renders the fever mortal. This fear is absolutely chimerical; never yet did a person in a fever die merely from weakness. They may be supported even for some weeks, by water only; and are stronger at the end of that time, than if they had taken more solid nourishment; since, far from strengthening them, their food increases their disease, and hence increases their weakness.

From the first invasion of a fever, digestion ceases. Whatever solid food

is taken corrupts, and proves a source of putridity, which adds nothing to the strength of the sick, but greatly to that of the distemper. There are in fact a thousand examples to prove that it becomes a real poison: and we may sensibly perceive that those poor creatures who are thus compelled to eat, lose their strength, and fall into anxiety and ravings, in proportion as they swallow.

They are also further injured by the quality as well as the quantity of their food. They are forced to sup strong gravy soups, eggs, biscuits, and even flesh, if they have but resolution and strength to chew it. It seems absolutely impossible for them to survive all this trash. Should a man in perfect health be compelled to eat fœtid meat, rotten eggs, stale sour broth, he is attacked with as violent symptoms as if he had taken real poison, which in effect he has. He is seized with vomiting, anguish, a violent purging, and a fever, with raving, and eruptive spots, which we call the purple fever. Now when the very same articles of food, in their soundest state, are given to a person in a fever, the heat and the morbid matter already in his stomach, quickly putrify them; and after a few hours, produce all the above-mentioned effects. Let any man judge then if the least service can be expected from them.

It is a truth established by the first of physicians, above two thousand years past, and still farther ratified by his successors, that as long as a sick person has a bad humour in his stomach, his weakness increases in proportion to the food he receives; for this being corrupted by the infected matter it meets there, proves incapable of nourishing, and becomes an additional cause of the distemper.

The most observing persons constantly remark, that whenever a feverish patient sups what is commonly called some good broth, the fever gathers strength and the patient weakness. The giving such a soup or broth, though of the freshest meat, to a man who has a high fever, or putrid humours in his stomach, is to do him exactly the same service, as if you had given him (two or three hours later) stale putrid soup.

We must also observe, that this fatal prejudice of keeping up the patient's strength by food, is still too much propagated, even among those very persons whose talents and education might be expected to exempt them from so gross an error. It were happy for mankind, and the duration of their lives would generally be more extended, if they could be thoroughly persuaded of this medical and so very demonstrable truth, — that the only things which can strengthen sick persons, are those which are able to weaken their disease; but their obstinacy in this respect is inconceivable; it is another evil superadded to that of the disease, and sometimes the more grievous one. Out of twenty sick persons who are lost in the country, more than two-thirds might often have been cured, if being only lodged in a place defended from the injuries of the air, they were supplied with abundance of good water. But that most mistaken care and regimen we have been treating of, scarcely suffers one of the twenty to survive them.

What further increases our horror at this enormous propensity to heat, dry up, and cram the sick, is, that it is totally opposite to what nature herself indicates in such circumstances. The burning heat of which they complain; the dryness of the lips, tongue, and throat; the flaming high colour of their urine; the great longing they have for cooling things; the pleasure and sensible benefit they enjoy from fresh air, are so many signs, or rather proofs, which cry out with a loud voice, that we ought to attemperate and cool them moderately, by all means.

Their foul tongues, which shew the stomach to be in the like condition; their loathing, their propensity to vomit, their utter aversion to all solid food, and especially to flesh; the disagreeable stench of their breath; their discharge of fœtid wind upwards and downwards, and frequently the extraordinary offensiveness of their excrements, demonstrate that their

bowels are full of putrid contents, which must corrupt all the aliments superadded to them; and that the only thing which can prudently be done, is to dilute and attemper them by plentiful draughts of refreshing cooling drinks, which may promote an easy discharge of them. We wish to impress this truth strongly on the minds of all, that as long as there is any taste of bitterness or putrescence; as long as there is a nausea or loathing; a bad breath, heat and feverishness with fœtid stools, and a high-coloured urine; so long all flesh and flesh-soups, eggs, and all kinds of food composed of them, or of any of them, and all Venice treacle, wine, and all heating things, are so many absolute poisons.

We may possibly be censured as extravagant and excessive on these heads by the public, and even by some physicians; but the true and enlightened practitioner, who attends to the effect of every particular, will find, on the contrary, that far from exceeding in this respect, we have rather feebly expressed their own judgment, in which they agree with that of all the good ones who have existed within more than two thousand years; that very judgment which reason approves, and continual experience confirms. The prejudices we have been contending against, have cost Europe some millions of lives.

Neither should we omit to state, that even when a patient has very fortunately escaped death, notwithstanding all this care to obtain it, the mischief is not ended; the consequences of the high aliments and heating medicines being, to leave behind the seed, the principle of some low and chronical disease, which, increasing insensibly, bursts out at length, and finally procures him the death he has even wished for, to put an end to his tedious sufferings.

Every person of sound plain sense is capable of perceiving the truth of whatever we have advanced in this article; and there would be some degree of prudence, even in those who do not perceive the real good tendency of our advice, not to defy nor oppose it too hardily. The question relates to a very important object; and in a matter quite foreign to themselves, they undoubtedly owe some deference to the judgment of persons who have made it the study and business of their whole lives. It is not to ourselves that we hope for their attention, but to the greatest physicians, whose feeble echo we are. What interest have we in forbidding sick people to eat, to be stifled, or to drink such heating things as increase their fever? What advantage can accrue to us from opposing the fatal torrent which sweeps them off? What arguments can persuade people, that some thousand men of genius, of knowledge, and of experience, who pass their lives among a crowd and succession of patients; who are entirely employed to take care of them, and to observe all that passes; have been only amusing and deceiving themselves on the effects of food, of regimen, and of remedies? Can it be for a moment entertained, that a nurse, who advises soup, an egg, or a biscuit, deserves a patient's confidence better than a physician who forbids them? Nothing can be more disagreeable to the latter than his being obliged to dispute continually in behalf of his poor patients; and to be in constant terror, lest this mortally officious attendance, by giving such food as augments all the causes of the disease, should defeat the efficacy of all the remedies he administers to remove it; and should fester and aggravate the wound, in proportion to the pains he takes to dress it. The more such absurd people love a patient, the more they urge him to eat, which, in effect, verifies the proverb of "killing with kindness."

ANATOMY.

ARTICLE II.

OF THE MUSCLES OF THE HUMAN BODY.

THE muscles are moving powers, applied to perform the several motions of the body, by contracting their

length, and thereby bringing the parts to which they are fixed nearer together. The immoveable, or least moved part of any muscle, is usually called its origin, and the other its insertion; but muscles that have their two ends equally liable to be moved, may have either called their origins or insertions.

Each muscle is made up of a number of small fibres, which Borelli and others have thought to be a string of bladders, and have endeavoured to account for muscular motion by an expansion made from an influx of blood and animal spirits into these bladders; but as the muscles do not increase their bulk sensibly in contracting, there needs no more to be said to refute this hypothesis. But another great author thought, that in this way the muscles might be contracted by a swelling, scarcely sensible, if the bladders were but very small: For, says he, supposing a bladder of any determined bigness can raise a weight a foot, a hundred bladders, whose diameters are each a hundredth part of the former, will raise the weight to the same height. But the force of inflation and the swelling of all together will be ten thousand times less, and it will also raise ten thousand times less weight, which he has not observed, therefore not one such string of bladders, but ten thousand must be applied to do the same thing that the one bladder will do, and they will have the same swelling, otherwise it would be easy to shew how to make a perpetuum mobile of almost any force.

The muscles are of two sorts: viz. right-lined and penniform, or like the feather of a quill. The former have their fibres almost parallel, in the same, or near the same direction with the axis of the muscle, and the latter have their fibres joined in an oblique direction to a tendon passing in or near the axis, or on their outside.

The right-lined muscles, if their origins and insertions are in a little compass, are never of any considerable thickness, unless they are very long; because the outward fibres would compress the inner ones, and make them almost useless; and therefore every right-lined muscle, whose inner fibres are compressed by the outer, have their inner fibres longer than the external, that they may be capable of equal quantity of contraction.

The penniform muscles, though they are in a manner free from the inconvenience of one fibre compressing another, and though by the obliquity of their fibres, nothing is abated of their moment,—(for in all cases, just so much more weight as right-lined fibres will raise than oblique ones, the oblique will move their weight with so much greater velocity than the right-lined, which is making their movements equal: so that in the structure of an animal, like all mechanical engines, whatever is gained in strength is lost in velocity, and whatever is gained in velocity is lost in strength,)—yet the fibres of the penniform muscles becoming more and more oblique as they contract, their strength decreases, and their velocity increases, which makes them less uniform in their actions than the right-lined muscles. Wherefore it seems that nature never uses a penniform muscle, where a right-lined muscle can be used, and the cases in which a right-lined muscle cannot be used, are where the shape of a muscle is such as that the inward fibres would be too much compressed, or where right-lined fibres could not have a lever to act with, suitable to their quantity of contraction, which is the case of all the long muscles of the fingers and toes. For every muscle must be inserted, or pass over the centre motion of the joint it moves, at a distance suitable to its quantity of contraction, and the quantity of motion in the joint moved; for if it was inserted too near, then the motion of the joint would be performed before the muscle is contracted all that it can; if too far off, the muscle will have done contracting before the whole motion of the

joint is made. And though the quickness and quantity of motion in a muscle will be as the length of its fibres, (for if a fibre four inches long will contract one inch in a given time, a fibre eight inches long will contract two inches in the same time) and the strength of a muscle or power to raise a weight, will be as the number of its fibres; for if one fibre will raise a grain weight, twenty fibres will raise twenty grains. Nevertheless, two muscles of equal magnitude, one long and the other short, will both move the same weight with equal velocity when applied to a bone, because the levers they act with must be as their lengths, and therefore the short thick muscles are never applied to a bone for the sake of strength, nor long fibred muscles for quickness; for whatever is gained by the form of the muscle, whether strength or quickness, must be lost by their insertions into the bone, else the muscles must not act all that they can, or the bones have less motion than they are capable.

In the limbs, several muscles pass over two joints, both of which are liable to move at once, with force proportionable to the levers they act with upon each joint; but either joint being fixed by an antagonist muscle, the whole force of such muscles will be exerted upon the other joint, which in that case may be moved with a velocity equal to what is in both joints, when these muscles act upon both at once.

DESCRIPTION OF THE PLATE REPRESENTING THE PRINCIPAL EXTERNAL MUSCLES OF THE BODY.

1. The triceps of the arm, whose action is to pull the fore-arm downwards or to extend it.
2. The deltoid, whose action is to raise the whole arm above the shoulder.
3. The rotundus major, and
4. The latissimus dorsi, whose action is to draw down the arm, as in chopping.
5. The great pectoral, whose action is to pull forth the arm, as in boxing.
6. The great oblique, covering the sides of the belly, and whose action is bending the body to either side.
7. The rectus, whose action is to bend the body downward, as in bowing.
8. The sartorious, whose action is to cross the legs, as tailors do.
9. The rectus of the thigh, whose action is to straighten the leg.
10. The vastus exturnus, whose action is to draw the thigh upward and outward.
11. The vastus internus, whose action is to draw the thigh upward and inward.
12. The gastrochnimius, or great muscle of the calf, whose action is to raise the whole weight of the body on the toes.
13. The gemini, which assists the foregoing.

The knowledge of these muscles are particularly useful to every delineator of the human figure: but on this we shall speak hereafter.

FOR PERSPIRATION OF THE FEET.

To obviate this inconvenience will be difficult, and not altogether advisable; but to palliate it, will be easy and desirable.

Observe then to bathe the feet every night in *warm* water, and every morning in *cold*, and after each bathing wet them with the following:

Take of decoction of oak bark any quantity, and add to it a little alum.

Wear light covering on the feet, and change the stockings often.

THE DISEASE CALLED BULIMIA, OR RAVENOUS FEVER.

THERE was a Polish soldier, named Charles Domery, in the service of the

French, on board the Hoche frigate, which was captured by the squadron under the command of Sir J. Borlase Warren, off Ireland, in 1799. He was twenty-one years of age, and stated that his father and brothers had been remarkable for their voracious appetites. His began when he was thirteen years of age. He would devour raw and even live cats, rats, and dogs, besides bullock's liver, tallow candles, and the entrails of animals.

One day, (September 17, 1799,) an experiment was made of how much this man could eat in one day. This experiment was made in the presence of Dr. Johnson, a commissioner of sick and wounded seamen, Admiral Child, and Mr. Foster, agents for prisoners at Liverpool, and several other gentlemen. He had breakfasted at four o'clock in the morning on four pounds of raw cow's udder: at half past nine o'clock, there were set before him five pounds of raw beef, and twelve tallow candles of one pound weight, together with one bottle of porter:—these he finished by half past ten o'clock. At one o'clock there were put before him five pounds more of beef, one pound of candles, and three bottles of porter. He was then locked up in the room, and sentries were placed at the windows to prevent his throwing away any of his provisions. At two o'clock he had nearly finished the whole of the candles, and great part of the beef. At a quarter past six he had devoured the whole, and declared he could have eat more; but the prisoners on the outside having told him that experiments were making upon him, he began to be alarmed. Moreover, the day was hot, and he had not had his usual exercise in the yard. The whole of what he consumed in the course of that one day amounted to

Raw cow's udder . . .	4 lb.
Raw beef	10
Candles	2
Total	16

Besides five bottles of porter.

The eagerness with which this man attacked his beef when his stomach was not gorged, resembled the voracity of a hungry wolf; he would tear off large pieces with his teeth, roll them about his mouth, and then gulph them down. When his throat became dry from continued exercise, he would lubricate it by stripping the grease off a candle between his teeth; and then wrapping up the wick like a ball, would send it after the other part at a swallow. He could make shift to dine on immense quantities of raw potatoes or turnips; but by choice would never taste bread or vegetables.

He was in every respect healthy; six feet three inches high, of a pale complexion, grey eyes, long brown hair, well made, but thin; his countenance rather pleasant; and he was good tempered. His perspirations were profuse; to which Dr. Johnson and the other medical gentlemen have ascribed the rapid dissipation of the ingesta, and his incessant craving for fresh supplies of food.

DIRECTIONS FOR THE PREVENTION OF PREMATURE DEATH.

ISSUED BY THE COMMITTEE OF THE ROYAL HUMANE SOCIETY.

TREATMENT OF DROWNED PERSONS.

In removing the body to a convenient place, care must be taken that it be not bruised, nor shaken violently, nor roughly handled, nor carried over any man's shoulders with the head hanging downwards, nor rolled upon the ground, nor over a barrel, nor lifted up by the heels; for experience proves that all these methods may be injurious, and destroy the small remains of life. The unfortunate object should be cautiously conveyed by two or more persons; or in a carriage upon straw, lying as on a bed, with the head a little raised, and kept in as natural and easy a position as possible.

The body being well dried with a cloth or flannel, should be placed in a moderate degree of heat, but not too near a large fire. The window or door of the room should be left

open, and no more persons be admitted into it than those who are absolutely necessary; as the lives of the patients greatly depend upon their having the benefit of pure air. The warmth most promising of success is that of a bed or blanket well heated. Bottles of hot water should be laid at the bottoms of the feet, to the joints of the knees, and under the arm pits; and a warming-pan moderately heated, or hot bricks wrapped in cloths, should be passed over the body. The natural and kindly warmth of a healthy person lying by the side of the body has been found in some cases, particularly of children, very efficacious.

Should the accident happen in the neighbourhood of a warm bath, brewhouse, bakehouse, glasshouse, or any fabric where warm lees, ashes, embers, grains, sand, water, &c. are easily procured, it would be of great importance to place the body in any of these, moderated to a degree of heat little exceeding that of a healthy person; or in summer, the exposure to sunshine has been proved obviously beneficial. Friction with the hand, or with warm flannel or coarse cloth, so as not to injure the skin, should also be tried with perseverance for a considerable period of time.

The subject being placed in one or other of these advantageous circumstances as speedily as possible; a bellows should be applied to one nostril, whilst the other nostril and the mouth are kept closed, and the lower end of the prominent part of the wind-pipe is pressed backward. The bellows is to be worked in this situation; and when the breast is swelled by it, the bellows should stop, and an assistant should press the belly upwards to force the air out. The bellows should then be applied as before, and the belly again to be pressed; this process should be repeated from twenty to thirty times in a minute, so as to imitate natural breathing as nearly as possible. Some volatile spirits heated may be held under the valve of the bellows whilst it works. If a bellows cannot be procured, some person should blow into one of the nostrils, whilst the mouth and the other nostril are closed as before.

If there be any signs of returning life, such as sighing, gasping, twitching, or any convulsive motions, beating of the heart, the return of the natural colour and warmth, opening a vein of the arm, or external jugular of the neck, may prove beneficial, but the quantity of blood taken away should not be large. The throat should be tickled with a feather in order to excite a propensity to vomit, and the nostrils also with a feather, snuff, or any other stimulant, so as to provoke sneezing. A tea-spoonful of warm water may be administered now and then, in order to learn whether the power of swallowing be returned; and if it be, a table-spoonful of warm wine or brandy and water, may be given with advantage; and not before, as the liquor might fall into the lungs before the power of swallowing returns. The other methods should be continued with ardour and perseverance for two hours or upwards although there should not be the least symptom of life.

In the application of stimulants, electricity has been recommended, and when it can be early procured, its exciting effects might be tried in aid of the means already recommended; but the electrical strokes should be given in a low degree, and gradually as well as cautiously increased.

SUSPENSION BY THE CORD, OR HANGING.

In hanging, the external veins of the neck are compressed by the cord, and the return of the blood from the head thereby impeded, from the moment that suspension takes place; but as the heart continues to act for a few seconds after the windpipe is closed, the blood which is sent to the head during this interval is necessarily accumulated there. Hence it is, that in hanged persons (strangulation) the face is greatly swollen, and of a dark red or purple colour; the eyes are commonly suffused with blood, enlarged, and prominent.

From the great accumulation of

blood in the vessels of the head, many have been of opinion that hanging kills chiefly by inducing apoplexy; but it has, however, been clearly proved, that in hanging, as well as in drowning, the exclusion of air from the lungs is the immediate cause of death. From which it appears, that the same measures recommended for drowned persons are also necessary here; with this addition, that opening the jugular vein, or applying cupping-glasses to the neck, will tend considerably to facilitate the restoration of life, by lessening the quantity of blood contained in the vessels of the head, and thereby taking off the pressure from the brain. Except in persons who are very full of blood, the quantity taken away need seldom exceed an ordinary tea cupful, which will, in general, be sufficient to unload the vessels of the head, without weakening the powers of life.

TO PREVENT THE EFFECTS OF LIGHTNING.

When persons happen to be overtaken by a thunder-storm, although they may not be terrified by the lightning, yet they naturally wish for shelter from the rain which usually attends it; and therefore, if no house be at hand, generally take refuge under the nearest tree they can find. But in doing this, they unknowingly expose themselves to a double danger; first, because their clothes being thus kept dry, their bodies are rendered more liable to injury, the lightning often passing harmless over a body whose surface is wet; and secondly, because a tree, or any elevated object, instead of warding off, serves to attract and conduct the lightning, which, in its passage to the ground, frequently rends the trunks or branches, and kills any person or animal who happens to be close to it at the time. Instead of seeking protection, then, by retiring under the shelter of a tree, hay-rick, pillar, wall, or hedge, the person, should either pursue his way to the nearest house, or get to a part of the road or field which has no high object that can draw the lightning towards it, and remain there until the storm has subsided.

It is particularly dangerous to stand near leaden spouts, iron gates, or palisadoes, at such times; metals of all kinds having so strong an attraction for lightning, as frequently to draw it out of the course which it would otherwise have taken.

When in the house, avoid sitting or standing near the window, door, or walls, during a thunder gust. The nearer you are placed to the middle of a room, the better.

The greatest danger to be apprehended from lightning is explosion of powder-magazines, which might, in a great degree, be secured from danger by insulation, or by lining the bulk-heads and floorings with materials of a non-conducting nature, the expence of which would not be great.

When a person is struck by lightning, strip the body, and throw buckets-full of cold water over it for ten or fifteen minutes; let continued frictions and inflations of the lungs be also practised; let gentle shocks of electricity be made to pass through the chest, when a skilful person can be procured to apply it; and apply blisters to the breast.

PRESERVATION OF THE LIVES OF SEAMEN.

The moment an alarm is given that a man is overboard, the ship's helm should be put down, and she should be hove in stays; an object that can float should also be thrown overboard as near the man as possible, with a rope tied to it, and carefully kept sight of, as it will prove a beacon, towards which the boat should pull as soon as lowered down. A grand primary object is, having a boat ready to lower down at a moment's notice, which should be hoisted up at the stern most convenient; the lashings, tackle, &c. to be ever kept clear, and a rudder, tiller, and spare oar, ever to be kept in her; and when dark, she should not be without a lanthorn and a compass.

There should also be kept in her a

rope with a running bowline, ready to fix in or to throw to the person in danger; coils of small rope, with running bowlines, should also be kept in the chains, quarters, and abaft, ready to throw over, as it most generally occurs that men pass close to the ship's side, and have been often miraculously saved by clinging to ropes.

Sailors have no conception that mephitic air will be productive of immediate apparent death. It is granted by most seamen, that smoking or fumigating ships with charcoal is the most effectual means of killing all kinds of vermin, and is therefore always resorted to.

It is recommended, for the certain preservation of our brave defenders, that no sailor nor boy be allowed to go under the decks until the hatches, and all the other openings, have been for three hours uncovered; in that time all noxious vapours will be effectually detached.

TO PREVENT THE FATAL EFFECTS OF DRINKING COLD WATER, OR COLD LIQUORS OF ANY KIND, IN WARM WEATHER, OR WHEN HEATED BY EXERCISE, OR OTHERWISE.

Avoid drinking whilst warm, or drink only a small quantity at once, and let it remain a short time in the mouth before swallowing it; or, wash the hands and face, and rince the mouth with cold water before drinking. If these precautions have been neglected, and the disorder incident to drinking cold water hath been produced, the first, and in most instances, the only remedy to be administered, is sixty drops of liquid laudanum in spirit and water, or warm drink of any kind.

If this should fail of giving relief, the same quantity may be given twenty minutes after.

When laudanum cannot be obtained, rum and water, or warm water should be given. Vomits and bleeding should not be used without consulting a physician.

TO PREVENT THE EFFECTS OF EXCESSIVE COLD.

Persons are in danger of being destroyed by it, when they become very drowsy, or are affected with general numbness or insensibility of the body. As the cold which proves fatal generally affects the feet first, great care should be taken to keep them as warm as possible; by protecting them when exposed to cold with wool, or woollen socks within the shoes or boots, or with large woollen stockings drawn over them, or when riding, with hay or straw wrapped round them; by keeping up a brisk circulation in the blood-vessels of the feet, which will be best preserved by avoiding tight boots or shoes, by moving the feet constantly; or when this is impracticable, from a confined situation, and two or more persons are exposed together, by placing their feet, without shoes, against each other's breasts.

When the cold has produced apparent death, the body should be placed in a room without fire, and rubbed steadily with snow, or cloths wet with cold water, at the same time that the bellows is directed to be applied to the nose, and used as in the case of drowning. This treatment should be continued a long time, although no signs of life appear; for some persons have recovered, who appeared lifeless for several hours.

When the limbs only are affected by the cold, they should be rubbed gently with snow, or bathed in cold water, with ice in it, until the feeling and power of motion returns: after which the bathing, or rubbing with snow, is to be repeated once every hour, and continued a longer or shorter time, as the pains are more or less violent.

TO PREVENT DANGER FROM EXPOSURE TO THE EXCESSIVE HEAT OF THE SUN.

Affections from this cause, or strokes of the sun, so called, may be suspected, when a person exposed to its rays is seized with a violent headache, attended with throbbing or giddiness; followed with faintness and great insensibility, heat and dryness of the skin, redness and dryness of the eyes, difficulty of breathing; and

according as the disease is more or less violent, with a difficulty, or entire inability of speaking or moving.

To guard against these dangerous effects of heat, it will be proper to avoid labour, or violent exercise, or exposure to the rays of the sun immediately after a hearty meal. To avoid drinking spirits of any kind. Small beer, vinegar and water sweetened with sugar, or any thin cooling beverage, are alone proper for persons exposed to the excessive heat of the sun.

Should the symptoms increase, it will be proper to remove the affected person into a cool place, to open the garments, particularly about the neck and breast, and if the pulse beat forcibly, to bleed immediately; the quantity proportioned to the strength of the pulse; but should the pulse be weak, bleeding must not be performed.

The feet and legs, and even the lower portion of the body, may be placed in cold water. Should, however, this process prove ineffectual, linen cloths wet with cold water, or water and vinegar, may be applied to the temples, and over the whole head; and draughts of vinegar and water, sweetened, may be freely drank.

DANGEROUS EFFECTS OF NOXIOUS VAPOURS, FROM WELLS, CELLARS, FERMENTING LIQUORS, &c. MAY BE PREVENTED.

By procuring a free circulation of air, either by ventilators, or opening the doors or windows where it is confined, or by changing the air, by keeping fires in the infected place, or by throwing in stone-lime recently powdered.

When a person is apparently dead from the above-mentioned cause, the first thing to be done is to remove the body to a cool place in a wholesome air; then let the body be stripped, and let cold water be thrown from buckets over it for some time. This is particularly useful in cases of apparent death from drunkenness.—Let the treatment now be the same as that for drowned persons.

BURNING OF FEMALES BY THEIR CLOTHES HAVING CAUGHT FIRE.

A by-stander, or the first person who is present, should instantly pass the hand under all the clothes to the sufferer's shift, and raising the whole together, close them over the head, by which the flame will indubitably be extinguished; and this may be effected in a few seconds; that is, in the time that a person can stoop to the floor and rise again; and no other method can be so ready, expeditious, and effectual.

The sufferer will facilitate the business, and also prevent serious injury, by covering her face and bosom with her hands and arms.—Should it happen that no person is nigh to assist her, she may in most cases, if she has presence of mind, relieve herself, by throwing her clothes over her head, and rolling or lying upon them.

The females and children in every family should be told, and shewn, that *Flame always tends upwards*,—and that, consequently, while they remain in an upright posture, with their clothes on fire, (it usually breaking out in the lower part of the dress,) the flames, meeting additional fuel as they rise, become more powerful and vehement in proportion—whereby the bosom, face, and head, being more exposed than other parts to this intense heat, or vortex of the flames, must necessarily be most injured; therefore, in such a situation, when the sufferer is alone, and incapable (from age, infirmity, or other cause) of extinguishing the flames, by throwing the clothes over her head, as before directed, she may still avoid much torture, and save life, by throwing herself at full length on the floor, and rolling herself thereon. By this method the flames may possibly be extinguished; their progress will infallibly be retarded; the bosom, face, and head, preserved from injury; and an opportunity be afforded for assistance.

APPEARANCES ON DISSECTION OF THE DROWNED.

THE BRAIN.—In the first place: the

vessels of the brain are of a remarkably dark colour, but not turgid, nor is there usually any extravasated blood.

THE BRONCHIA.—2. There is found in the upper bronchial cavities a certain frothy fluid of a palish red.

LUNGS.—3. The lungs are more livid than in their healthy state; and both the veins and arteries are considerably distended by a large quantity of black blood.

HEART.—4. The right auricle and ventricle of the heart are filled with blood of a dark colour: in the left auricle and ventricle there is found a considerable quantity of blood of a similar appearance.

ARTERIES.—5. In the last place, in examining minutely the trunks and branches of the arteries to their utmost perceptible extent, we find them universally suffused with blood of a very dark colour.

DESCRIPTION OF A PERSON DESTINED FOR LONG LIFE.

FROM THE GERMAN OF HUFELAND.

HE has a proper and well-proportioned stature, without however being too tall. He is rather of the middle size, and somewhat thick set. His complexion is not too florid; at any rate, too much ruddiness in youth is seldom a sign of longevity. His hair approaches rather to the fair than the black; his skin is strong, but not rough. His head is not too big; he has large veins at the extremities; and his shoulders are rather round than flat. His neck is not too long; his belly does not project; and his hands are large, but not too deeply cleft. His foot is rather thick than long; and his legs are firm and round. He has also a broad arched chest, a strong voice, and the faculty of retaining his breath for a long time without difficulty. In general, there is a complete harmony in all his parts. His senses are good, but not too delicate; his pulse is slow and regular.

His stomach is excellent, his appetite good, and his digestion easy.—The pleasures of the table are to him of no importance; they tune his mind to serenity, and his soul partakes in the joy which they communicate. He does not eat merely for the sake of eating; but each meal is an hour of daily festivity; a kind of delight, attended with this advantage in regard to others, that it does not make him poorer, but richer. He eats slowly, and has not too much thirst; too great thirst is always a sign of rapid self-consumption.

In general, he is serene, loquacious, active, susceptible of joy, love, and hope: but insensible to the impressions of hatred, anger, and avarice. His passions never become too violent or destructive. If he ever gives way to anger, he experiences rather an useful glow of warmth, an artificial and gentle fever, without an overflowing of the gall. He is fond also of employment, particularly calm meditation and agreeable speculations; is an optimist, a friend to nature and domestic felicity—has no thirst after honours and riches, and banishes all thoughts of to-morrow.

NATURAL HISTORY OF THE BOHON-UPAS, OR POISON-TREE OF THE ISLAND OF JAVA.

BY N. P. FOERSCH, OF AMSTERDAM.

THIS destructive tree is called in the Malayan language, Bohon-Upas, and has been described by naturalists: but their accounts have been so tinctured with the marvellous, that the whole has been supposed to be an ingenious fiction by the generality of readers. Nor is this in the least degree surprising, when the circumstances that I shall faithfully relate in this description are considered.

I must acknowledge that I long doubted the existence of this tree, until a stricter enquiry convinced me of my error. I shall now only relate simple unadorned facts, of which I have been an eye-witness. My readers may depend upon the fidelity

of this account. In the year 1774, I was stationed at Batavia, as a surgeon in the service of the Dutch East India Company. During my residence there I received several different accounts of the Bohon-Upas, and the violent effects of its poison. They all then seemed incredible to me, but raised my curiosity in so high a degree, that I resolved to investigate this matter thoroughly, and to trust only to my own observations. In consequence of this resolution, I applied to the Governor-General Petrus Alburtus van der Parra, for a pass to travel through the country. My request was granted, and having procured every information, I set out on my expedition.

I had procured a recommendation from an old Malayan priest to another priest who lives on the nearest habitable spot to the tree, which is about fifteen or sixteen miles distant. The letter proved of great service to me in my undertaking, as that priest is appointed by the Emperor to reside there, in order to prepare for eternity the souls of those who, for different crimes, are sentenced to approach the tree, and to procure the poison.

The Bohon-Upas is situated in the island of Java, about twenty-seven leagues from Batavia, fourteen from Soura-Charta, the seat of the Emperor, and between eighteen and twenty leagues from Tinkjoe, the present residence of the Sultan of Java. It is surrounded on all sides by a circle of high hills and mountains; and the country around it, to the distance of ten or twelve miles from the tree, is entirely barren. Not a tree,—not a shrub,—nor even the least plant or grass is to be seen. I have made the tour all round this dangerous spot, at about eighteen miles distant from the centre, and I found the aspect of the country on all sides equally dreary. The easiest ascent of the hills, is from that part where the old ecclesiastic dwells. From his house the criminals are sent for the poison, into which the points of all warlike instruments are dipped. It is of high value, and produces a considerable revenue to the Emperor.

MANNER IN WHICH THE POISON IS PROCURED.

The poison which is procured from this tree, is a gum that issues out between the bark and the tree itself, like the camphor. Malefactors, who for their crimes are sentenced to die, are the only persons who fetch the poison; and this is the only chance they have of saving their lives. After sentence is pronounced upon them by the judge, they are asked in court, whether they will die by the hands of the executioner, or whether they will go to the Upas tree for a box of poison? They commonly prefer the latter proposal, as there is not only some chance of preserving their lives, but also a certainty, in case of their safe return, that a provision will be made for them in future, by the Emperor. They are also permitted to ask a favour from the Emperor, which is generally of a trifling nature, and commonly granted. They are then provided with a silver or tortoiseshell box, into which they are to put the poisonous gum; and are properly instructed how to proceed while they are upon their dangerous expedition. Among other particulars they are told always to attend to the direction of the winds; as they are to go towards the tree before the wind, so that the effluvia from the tree is always blown from them. They are told likewise to travel with the utmost dispatch, as that is the only method of gaining a safe return. They are afterwards sent to the house of the old priest, to which place they are commonly attended by their friends and relations. Here they generally remain some days in expectation of a favourable breeze. During that time, the ecclesiastic prepares them for their future fate by prayers and admonitions.

When the hour of their departure arrives, the priest puts on them a long leather cap with two glasses before their eyes, which comes down as far as their breast, and also provides them with a pair of leather gloves. They are then conducted by the priest and their friends and relations, about two miles on their journey. Here the

priest repeats his instructions, and tells them where they are to look for the tree. He shews them a hill, which they are told to ascend; and that on the other side they will find a rivulet, which they are to follow, and which will conduct them directly to the Upas. They now take leave of each other, and amidst prayers for their success, the delinquents hasten away.

The worthy old ecclesiastic has assured me, that during his residence there, for upwards of thirty years, he had dismissed above seven hundred criminals in the manner which I have described; and that scarcely two out of twenty have returned. He shewed me a catalogue of all the unhappy sufferers, with the date of their departure from his house annexed, and a list of the offences for which they had been condemned. To which was added a list of those who had returned in safety. I afterwards saw another list of these culprits, at the goal-keeper's, at Soura Charta, and found that they perfectly corresponded with each other, and with the different informations which I afterwards obtained.

I was present at some of these melancholy ceremonies, and desired different delinquents to bring with them some pieces of the wood, or a small branch, or some leaves of this wonderful tree. I have also given them silk cords, desiring them to measure its thickness. I never could procure more than two dry leaves, that were picked up by one of them on his return; and all I could learn from him concerning the tree itself, was, that it stood on the border of a rivulet, as described by the old priest; that it was of a middling size: that five or six young trees of the same kind stood close by it; but that no other shrub or plant could be seen near it; and that the ground was of a brownish sand, full of stones, almost impracticable for travelling, and covered with dead bodies.

After many conversations with the old Malayan priest, I questioned him about the first discovery, and asked his opinion of this dangerous tree; upon which he gave me the following answer in his own language:—

"We are told in our New Alcoran, that above one hundred years ago, the country around the tree was inhabited by a people strongly addicted to the sins of Sodom and Gomorrha. When the great prophet Mahomet determined not to suffer them to lead such detestable lives any longer, he applied to God to punish them; upon which God caused this tree to grow out of the earth, which dstroyed them all, and rendered the country for ever uninhabitable."

Such was the Malayan's opinion. I shall not attempt a comment, but must observe, that all the Malayans consider this tree as an holy instrument of the great Prophet to punish the sins of mankind; and therefore to die of the poison of the Upas is generally considered among them as an honourable death. For that reason I also observed, that the delinquents who were going to the tree, were generally dressed in their best apparel.

This however is certain, though it may appear incredible, that from fifteen to eighteen miles round this tree, not only no human creature can exist, but in that space of ground, no living animal of any kind has ever been discovered. I have also been assured by several persons of veracity, that there are no fish in the waters, nor has any rat, mouse, or any other vermin been seen there; and when any birds fly so near this tree, that the effluvia reaches them, they fall a sacrifice to the effects of the poison. This circumstance has been ascertained by different delinquents, who in their return, have seen the birds drop down, and have picked them up dead, and brought them to the old ecclesiastic.

I will here mention an instance which proves this a fact beyond all doubt, and which happened during my stay at Java.

In this year a rebellion broke out among the subjects of the Massay, a sovereign prince, whose dignity is nearly equal to that of the Emperor. They refused to pay a duty imposed

upon them by their sovereign, whom they openly opposed. The Massay sent a body of a thousand troops to disperse the rebels and to drive them, with their families, out of his dominions. Thus about four hundred families, consisting of above sixteen hundred souls, were obliged to leave their native country. Neither the Emperor nor the Sultan would give them protection, not only because they were rebels, but also through fear of displeasing their neighbour, the Massay. In this distressful situation they had no other resource than to repair to the uncultivated parts round the Upas, and requested permission of the Emperor to settle there. Their request was granted, on condition of their fixing their abode not more than twelve or fourteen miles from the tree, in order not to deprive the inhabitants already settled there at a greater distance of their cultivated lands. With this they were obliged to comply: but the consequence was, that in less than two months, their number was reduced to about three hundred. The chiefs of those who remained returned to the Massay, informed him of their losses, and intreated his pardon, which induced him to receive them again as his subjects, thinking them sufficiently punished for their misconduct.

I have seen and conversed with several of those who survived, soon after their return. They all had the appearance of persons tainted with an infectious disorder; they looked pale and weak; and from the account which they gave of the loss of their comrades, of the symptoms and circumstances which attended their dissolution, such as convulsions and other signs of a violent death, I was fully convinced that they fell victims to the poison.

This violent effect of the poison, at so great a distance from the tree, certainly appears surprising, and almost incredible; and especially when we consider that it is possible for delinquents who approach the tree, to return alive. My wonder however in a great measure ceased after I had made the following observations:

I have said before, that malefactors are instructed to go to the tree with the wind, and to return against the wind. When the wind continues to blow from the same quarter while the delinquent travels thirty or six and thirty miles, if he be of a good constitution he certainly survives: but what proves the most destructive is, that there is no dependence on the wind in that part of the world for any length of time. There are no regular land winds; and the sea wind is not perceived there at all, the situation of the tree being at too great a distance, and surrounded by high mountains and uncultivated forests. Besides, the wind there never blows a fresh regular gale, but is commonly merely a current of light soft breezes, which pass through the different openings of the adjoining mountains. It is also frequently difficult to determine from what part of the globe the wind really comes; as it is divided by various obstructions in its passage, which easily change the direction of the wind, and often totally destroy its effects.

I therefore impute the distant effects of the poison in a great measure to the constant gentle winds in those parts, which have not power enough to disperse the poisonous particles. If high winds were more frequent and durable there, they would certainly weaken very much, and even destroy the noxious effluvia of the poison; but without them the air remains infected and pregnant with these poisonous vapours.

I am the more convinced of this, as the worthy ecclesiastic assured me, that a dead calm is always attended with the greatest danger, as there is a continual perspiration issuing from the tree, which is seen to rise and spread in the air like the putrid steam of a marshy cavern.

EXPERIMENTS MADE WITH THE GUM OF THE UPAS TREE.

In the year 1776, in the month of February, I was present at the execution of thirteen of the Emperor's concubines, at Soura Charta, who were convicted of infidelity to the

Emperor's bed. It was in the forenoon, about eleven o'clock, when the fair criminals were led into an open space within the walls of the Emperor's palace. There the judge passed sentence upon them, by which they were doomed to suffer death by a lancet poisoned with Upas. After this, the Alcoran was presented to them, and they were, according to the law of their great prophet Mahomet, to acknowledge and to affirm by oath, that the charges brought against them, together with the sentence and their punishment, were fair and equitable. This they did by laying their right hands upon the Alcoran, their left hands upon their breast, and their eyes lifted towards heaven; the judge then held the Alcoran to their lips, and they kissed it.

These ceremonies over, the executioner proceeded on his business in the following manner:—Thirteen posts, each about five feet high, had been previously erected. To these the delinquents were fastened, and their breasts stripped naked. In this situation they remained a short time in continual prayer, attended by several priests, until a signal was given by the judge to the executioner; on which the latter produced an instrument, much like the spring lancet used by farriers for bleeding horses. With this instrument, it being poisoned with the gum of the Upas, the unhappy wretches were lanced in the middle of their breasts:—the operation was performed upon them all in less than two minutes.

My astonishment was raised to the highest degree when I beheld the sudden effects of that poison, for in about five minutes after they were lanced, they were taken with a tremor, attended with a *subsultus tendinum*, after which they died in the greatest agonies, crying out to God and Mahomet for mercy. In sixteen minutes by my watch, which I held in my hand, all the criminals were no more. Some hours after their death I observed their bodies full of livid spots, much like those of putrid fever, their faces swelled, their colour changed to a kind of blue, their eyes looked yellow, &c. &c.

About a fortnight after this, I had an opportunity of seeing such another execution at Samarang. Seven Malayans were executed there with the same instrument, and in the same manner; and I found the operation of the poison and the spots in their bodies exactly the same.

These circumstances made me desirous to try an experiment with some animals, in order to be convinced of the real effects of this poison; and as I had then two young puppies, I thought them the fittest objects for my purpose. I accordingly procured, with great difficulty, some grains of Upas. I dissolved half a grain of that gum in a small quantity of arrack, and dipped a lancet into it. With this poisoned instrument I made an incision in the lower muscular part of the belly of one the puppies. Three minutes after it received the wound the animal began to cry out most piteously, and ran as fast as possible from one corner of the room to the other. So it continued during six minutes, when all its strength being exhausted, it fell upon the ground, was taken with convulsions, and died in the eleventh minute. I repeated this experiment with two other puppies, with a cat, and a fowl, and found the operation of the poison in all of them the same; none of these animals survived above thirteen minutes.

I thought it necessary to try also the effect of the poison given inwardly, which I did in the following manner: I dissolved a quarter of a grain of the gum in half an ounce of arrack, and made a dog of seven months old drink it. In seven minutes a retching ensued, and I observed at the same time, that the animal was delirious, as it ran up and down the room, fell on the ground, and tumbled about; then it rose again, cried out very loud, and in about half an hour after was seized with convulsions, and died. I opened the body, and found the stomach very much inflamed, as the intestines were in some parts, but not

so much as the stomach. There was a small quantity of coagulated blood in the stomach, but I could discover no orifice from which it could have issued, and therefore supposed it to have been squeezed out of the lungs, by the animal's straining while it was vomiting.

From these experiments I have been convinced, that the gum of the Upas is the most dangerous and most violent of all vegetable poisons; and I am apt to believe that it greatly contributes to the unhealthiness of that island. Nor is this the only evil attending it; hundreds of the natives of Java, as well as Europeans, are yearly destroyed and treacherously murdered by that poison, either internally or externally. Every man of quality or fashion has his dagger or other arms poisoned with it; and in times of war the Malayans poison the springs and other waters with it; by this treacherous practice the Dutch suffered greatly during the last war, as it occasioned the loss of half their army. For this reason, they have ever since kept fish in the springs of which they drink the water; and sentinels are placed near them, who inspect the waters every hour, to see whether the fish are alive. If they march with an army or body of troops into an enemy's country, they always carry live fish with them, which they throw into the water some hours before they venture to drink it, by which means they have been able to prevent their total destruction.

This account, I flatter myself, will satisfy the curiosity of my readers, and the few facts I have related will be considered as a certain proof of the existence of this pernicious tree, and its penetrating effects.

If it be asked why we have not yet any more satisfactory accounts of this tree, I can only answer, that the object of most travellers to that part of the world consists more in commercial pursuits than in the study of natural history and the advancement of science. Besides, Java is so universally reputed an unhealthy island, that rich travellers seldom make any long stay in it, and others want money, and generally are too ignorant of the language to travel, in order to make enquiries. In future, those who visit this island will probably now be induced to make it an object of their researches, and will furnish us with a fuller description of this tree.

I will, therefore, only add, that there exists also a sort of Cajoe-Upas on the coast of Macassar, the poison of which operates nearly in the same manner, but is not half so violent and malignant as that of Java.

BITES OF GNATS AND MOSCHITOES.

THE bites of moschitoes abroad, and the gnats in this country are sometimes dangerous, and always very troublesome. Both these insects are of the same species. Small tumours are the immediate consequences of their bites, and these itch intolerably, so that the person bitten, cannot refrain from scratching, which produces a violent degree of inflammation, and in robust habits, ulceration often takes place.

When a person is bitten by either a gnat or moschito, let the part first be kept in cold water a little while, and then bathed with the following

LOTION FOR MOSCHITO BITES.

Take of liquor plumbi acetatis, half an ounce,
Of common cold water, half a pint,
Dissolve in it half a drachm of opium, and mix altogether.

A few hours after this application, a little olive oil should be used to the part

To prevent such bites, various methods have been devised, such as nets, gauzes, gloves, and dresses, but although their means lessen, they cannot effectually prevent the insects from sometimes biting. However, there are many people they never bite, owing no doubt to the nature of the perspiration.

CASE OF CURE IN HYDROPHOBIA.

A LETTER from Venice, dated June 10th, gives the following account of the successful treatment of a case in this dreadful malady:

"On the 28th of October last, a young apothecary of Forno di Rivara, was bitten in three places on the left hand by a cat, which died a few days after with all the symptoms of rabies. He at first contented himself by merely washing the slight wounds, and squeezing some blood from them; and it was not till twenty four hours had elapsed, that he cauterized two of them, and that but superficially. On the 19th of November, cauterizing was again resorted to, and the patient was ordered to take pure vinegar every morning, besides a decoction of geneva, of which he was to take two glasses a day. But what the physician particularly attended to, was the small glands under the tongue; they appeared to be in a perfect state of health. This treatment went on, and the young man, having both his appetite and natural sprightliness, continued to apply as usual to his business, without feeling the least uneasiness.

"About the 1st of December, however, his sprightliness forsook him; he sought solitary places, weeping incessantly; his sleep became disturbed, and frequently interrupted by unpleasant dreams; he felt a distate for every kind of meat and drink; his colour became livid, and his eyes quite red. The physician then discovered, that of the two glands, that on the right was in its natural state, while the one on the left, the same side as the bitten hand, presented much swelling and inflammation. Without losing time, the two glands were cauterized. The operation was painful in the extreme; the young man for eight hours endured the highest degree of fever, the violence of which, however, afterwards decreased gradually, and totally disappeared on the following day. He then began to recover; his appetite returned, and he resumed with pleasure the use of wine and water. The symptoms of hydrophobia at first observed in the wounds were obliterated imperceptibly; and ever since the young man, quite restored to health and business, has not felt the least sensation from the wounds. It appears quite clear that he owes his safety to the cauterising of the glands."

A medical gentleman has stated, that a few drops of any mineral acid put into the wound inflicted by a rabid animal, effectually prevents hydrophobia; it decomposes the salivary poison, consequently no bad effect follows.

THE CHINESE ART OF PRESERVING HEALTH.

BE virtuous; govern your passions; restrain your appetites; avoid excess and high-seasoned food; eat slowly, and chew your food well. Do not eat to full satiety. Breakfast betimes; it is not wholesome to go out fasting. In winter, a glass or two of wine is an excellent preservative against unwholesome air. Make a hearty meal about noon, and eat plain meats only. Avoid salted meats: those who eat them often have pale complexions a slow pulse, and are full of corrupted humours. Sup betimes, and sparingly. Let your meat be neither too little nor too much done. Sleep not till two hours after eating. Begin your meals with a little tea, and wash your mouth with a cup of it afterwards. I do indeed drink wine; but never more than four or five small glasses.

The most important advice which I can give for maintaining the body in due temperament, is to be very moderate in the use of all the pleasures of sense; for all excess weakens the spirits. Walk not too long at once. Stand not for hours in one posture; nor lie longer than necessary. In winter, keep not yourself too hot; nor in summer too cold. Immediately after you awake, rub your breast where your heart lies, with the palm of your hand. Avoid a stream of wind as you would an arrow.—Coming out of a warm bath, or after

hard labour, do not expose your body to cold. If in the spring there should be two or three hot days, do not be in haste to put off your winter clothes. It is unwholesome to fan yourself during perspiration. Wash your mouth with water or tea, lukewarm, before you go to rest, and rub the soles of your feet warm. When you lie down, banish all thought.

DU HALDE.

A LETTER

FROM A NUN OF PADUA, THE GRAND-DAUGHTER OF LEWIS CORNARO.

CHAPTER VI.

TESTIMONY OF HER GRAND-FATHER'S REGULAR LIFE.

LEWIS CORNARO was, by the ill-conduct of some of his relations, deprived of the dignity of a noble Venetian, of which he was possessed, and which he deserved for his virtues and by his birth. He was not banished from his country, but was free to remain in Venice if he pleased; but seeing himself excluded from all the public employments of the republic, he retired to Padua, where he took up his residence.

He married at Udina, a city of Friuli; his wife's name was Veronica, of the family of Spiltemberg. She was a long time barren, and as he ardently wished for children, he neglected nothing which might give him that satisfaction. At last, after many vows, prayers, and remedies, his wife became pregnant, and was delivered of a daughter, who was named Clara, because of the devotion which each of them had for Saint Francis.

This was an only daughter, and was married to John Cornaro, the son of Fantin, of the family of that name, which was distinguished by the surname of Cornaro del Episcopia. It was a very powerful family before the loss which Christendom suffered by losing the kingdom of Cyprus, where the family had a considerable estate.

Clara had eleven children, eight sons and three daughters. Lewis Cornaro had also the pleasure to see himself, as it were, revived by a miracle in a great number of successors; for though he was very ancient when Clara came into the world, yet he lived to see her very old, and his offspring to the third generation.

Cornaro was a man of understanding, merit, and courage. He loved glory, and was naturally liberal; nevertheless without profuseness. His youth was infirm, being very passionate and hasty; but when he perceived what damages the vices of his temper caused him, he resolved to correct them, and had command enough of himself to conquer his passion, and those extravagant humours to which he was subject. After this glorious victory, he became so moderate, mild, and affable, that he gained the esteem and friendship of all those who knew him.

He was extraordinarily sober, observed the rules which he mentions in his writings; and dieted himself with so much wisdom and precaution, that finding his natural heat decaying by degrees in his old age, he also diminished his diet by degrees, so far as to stint himself to the yolk of an egg for a meal, and sometimes, a little before his death, it served him for two meals.

By this means he preserved his health, and was also vigorous to the age of a hundred years; his mind did not decay, he never had need of spectacles, neither lost he his hearing.

And that which is no less true than difficult to believe is, that he preserved his voice so clear and harmonious, that at the end of his life, he sung with as much strength and delight as he did at the age of twenty-five years.

He had foreseen that he should live long without any infirmity, and was not deceived in it. When he felt that his last hour drew near, he disposed himself to leave this life with the piety of a Christian, and the courage of a philosopher. He made his will, and set all his affairs in order; after which he received the last sacraments,

and expected death patiently in an elbow chair. In short, it may be said, that being in good health, feeling no manner of pain, having also his mind and eye very brisk, a little fainting fit took him, which was instead of an agony, and made him fetch his last breath. He died at Padua, April 26, 1566, and was buried May 8, following.

His wife died some years after him. Her life was long, and her old age as happy as that of her spouse, only her latter days were not altogether like his. Some time before her death she was seized with a lingering, which brought her to her grave. She gave up her soul one night in her bed, without any convulsive motions, and with so perfect a tranquility, that she left this life without being perceived.

This is all I can say of those good people, by the idea of which remains of them, from what I heard my deceased father and some other friends of Lewis Cornaro say of them: who having lived so long, after an extraordinary manner, deserved not to die so soon in the memory of man.

MEDICINAL VIRTUES OF SPEEDWELL,

FOR INFLAMED TUBERCLES ON THE THE FACE, SO DISAGREEABLE AND DIFFICULT OF CURE.

SPEEDWELL, otherwise called Paul's Betony, is recommended as a cheap and delicate medicine.

But that our readers may know this herb, so as to distinguish it from others to prevent either mistake or imposition, it may not be improper to present them with a description thereof.

Speedwell, or Paul's Betony, is known from its root, consisting of many fibres; its leaves soft, of a hoary green colour, a little dented about the edges, and somewhat hairy, set by couples at the joints of the hairy brownish stalks, which lean down to the ground, never standing upright, but shooting forth roots as they lie upon the same at diverse joints. The flowers grow one above another at the tops, of a blueish purple colour, after which come small flat husks, in which are contained small blackish seeds.

It grows in almost all parts of England upon dry banks, on sandy wastes, and wood grounds. There is a second sort, called Small Meadow Speedwell, more scarce. It has been found in a close by Barnes, near London, and in several other places, and has been found also in some meadow-grounds near Lynn-Regis in Norfolk. They flower all June and July, and sometimes as late as August, and their seeds are ripe in July, August, and September.

It is an excellent remedy in scurvy, and all foulness and corruption of the blood and juices; opens obstruction of the viscera; is good against coughs; is a specific for cuticular disorders, fretting old sores, and corroding ulcers; spreading ring-worms, malign herpes, and other like disorders of the external parts. Its juice, mixed with water, makes a good cosmetic, and cures red spotted or inflamed protuberances in the face.

Three or four spoonfuls of its expressed juice, either alone or mixed with water, (and dashed with white wine if you please,) night and morning, will cure, it is said, some cases of leprosy.

OF MEDICINES TAKEN BY WAY OF PRECAUTION OR PREVENTION.

WE have pointed out, in some preceding parts of this work, the means of preventing the bad effects of several causes of diseases, and of prohibiting the return of some habitual disorders; we shall now subjoin some observations on the use of the principal remedies, from mere custom only, without knowing—and often with very little consideration—whether they are right or wrong.

Nevertheless the use, the habit of taking medicines, is certainly no indifferent matter: it is ridiculous, dangerous, and even criminal, to

omit them when necessary, but not less so to take them when they are not wanted. A good medicine, taken seasonably, when there is some disorder, some disarrangement in the body, which would in a short time occasion a disease, has often prevented it. But yet the very same medicine, when given to a person in perfect health, if it do not directly make him sick, leaves him at the best in a greater disposition to the impressions of diseases; and there are but too many examples of people, who, having contracted a habit of taking physic, have really injured their health and impaired their constitutions, however naturally strong, by an abuse of those materials which Providence has given for the recovery and re-establishment of it; an abuse which, though it should not injure the health of the person, would occasion those remedies, when perhaps he is really sick, to be less efficacious and serviceable to him, from their having been familiar to his constitution; and thus he becomes deprived of the assistance he would have received from them, if taken only in those times and under those circumstances in which they were necessary for him. We shall first consider

BLEEDING WHERE NECESSARY.

Bleeding is necessary only in these four cases:

1. When there is too great a quantity of blood in the body.

2. Where there is any inflammation, or inflammatory disease.

3. When some cause supervenes, or is about to supervene, in the constitution, which would speedily produce an inflammation, or some other dangerous symptoms, if the vessels were not relaxed by bleeding. It is upon this principle that patients are bled after wounds and after bruises; that bleeding is directed for a pregnant woman, if she have a violent cough; and that bleeding is performed by way of precaution in several other cases.

4. We also advise bleeding sometimes to assuage excessive pain, tho' such pain is not owing to excess of blood, nor arises from any inflamed blood, but in order to appease and moderate the pain by bleeding, and so obtain time for destroying the cause of it by other remedies. But as these two last reasons are in effect implied in the two first, it may very generally be concluded, that an excess of blood, and an inflamed state of it, are the only two necessary motives for bleeding. We shall here point out those

SYMPTOMS AND CIRCUMSTANCES WHICH MANIFEST AN EXCESS OF BLOOD.

The 1st, then, is the general course and manner of the patient's living while in health. If he be a great eater, and indulge in juicy nutritious food, and especially on much flesh-meat; if he drink rich and nourishing wine or other strong drink, and at the same time enjoys a good digestion; if he take but little exercise, sleep much, and have not been subject to any very considerable evacuation; he may well be supposed to abound in blood. It is very obvious that all these causes rarely occur in country people, if we except only the abatement of their exercise during some weeks in winter, which indeed may contribute to their generating more blood than they ordinarily do. The labouring countryman, for much the greater part of his time, lives only on coarse diet, very moderately nourishing; as one pound of bread probably does not make, in the same body, more blood than one ounce of flesh, though a general prejudice seems to have established a contrary opinion.

The 2nd, is the total stoppage or long interruption of some involuntary bleeding or hæmorrhage, to which he had been accustomed.

3. A full and strong pulse, and veins visibly filled with blood, in a body that is not lean and thin, and when he is not heated.

4. A florid lively ruddiness.

5. A considerable and unusual numbness; sleep more profound, of more duration, and yet less tranquil and calm, than at other times; a

greater propensity than ordinary to be fatigued after moderate exercise or work; and a little oppression and heaviness from walking.

6. Palpitations, accompanied sometimes with very great dejection, and even with a slight fainting fit, especially on being in any hot place, or after moving about considerably.

7. Vertigoes, swimmings of the head, especially on bowing down and raising it up at once, and after sleeping.

8. Frequent pains of the head, to which the person was not formerly subject; and which seem not to arise from any defect in the digestion.

9. An evident sensation of heat, pretty generally diffused over the whole body.

10. A smarting sort of itching all over, from a very little more heat than usual.

And, lastly, frequent hæmorrhages, and these attended with manifest relief, and more vivacity.

People should, notwithstanding, be cautious of supposing an unhealthy excess of blood, from any one of these symptoms only; many of them must concur; and they should endeavour to be certain, that even such a concurrence of them does not result from a very different cause, and wholly opposite in effect to that of an excess of blood.

But when it is certain, from the whole appearance, that such an excess really exists, then a single, or even a second bleeding is attended with very good effects. Nor is it material, in such cases, from what part the blood is taken.

On the other hand, when these circumstances do not exist, bleeding is in no wise necessary; nor should it ever be practised in these following conditions and circumstances, except for some particular and very strong reasons, of the due force of which none but physicians can judge

1st. When the person is in a very advanced age, or in very early infancy.

2 When he is either naturally of a weakly constitution, or it has been rendered such by sickness, or by some other accident.

3. When the pulse is small, soft, feeble, and intermits, and the skin is manifestly pale.

4. When the limbs, the extremities of the body, are often cold, puffed up, and soft.

5. When their appetites has been very small for a long time; their food but little nourishing, and their perspiration too plentiful, from great exercise.

6. When the stomach has long been disordered, and the digestion bad, whence very little blood could be generated.

7. When the patient has been considerably emptied, whether by hæmorrhages, a looseness, profuse urine, or perspiration; or when the crisis of some distemper has been effected by any one of these evacuations.

8. When the patient has long been afflicted with some depressing disease, and troubled with many such obstructions as prevent the formation of blood.

9. Whenever a person is exhausted, and from whatever cause.

10. When the blood is in a thin, pale, and dissolved state.

In all these cases, and in some others less frequent, a single bleeding often precipitates the patient into an absolutely incurable state, an irreparable train of evils. Many dismal examples of it are but too obvious.

Whatever, therefore, be the situation of the patient, and however naturally robust, that bleeding which is unnecessary is noxious. Repeated bleedings weaken and enervate the system, hasten old age, diminish the circulation, thence fatten and puff up the body; and next by weakening, and lastly by destroying the digestion, they lead to a fatal dropsy. They disorder the perspiration by the skin, and leave the patient liable to colds and swellings: they weaken the nervous system and render persons subject to vapours, to the hypochondriac disorders, and to all nervous maladies.

The ill consequence of a single

though erroneous bleeding is not immediately discernable; on the contrary, when it is not performed in such a quantity as to weaken the patient perceptibly, it appears to have been rather beneficial. Yet we still here insist upon it, that it is not less true, that when unnecessary it is prejudicial, and that people should never bleed, as sometimes has been done, for mere whim, or as it were for diversion. It avails nothing to affirm that within a few days after it they have got more blood than they had before it, that is, that they weigh more than at first; whence they infer the loss of blood very speedily repaired. The fact of their augmented weight is admitted; but this very fact testifies against the real benefit of that bleeding; since it is a proof, that the natural evacuations of the body are less completely made; and that humours which ought to be expelled, are retained in it. There remains the same quantity of blood, and perhaps a little more; but it is not blood so well made,—so perfectly elaborated; and this is so very true, that if the thing were otherwise,—if some days after the bleeding they had a greater quantity of the same kind of blood, it would amount to a demonstration that more reiterated bleedings must necessarily have brought on an inflammatory disease in a man of a robust habit of body.

The quantity of blood which a grown man may part with *by way of precaution*, is about ten ounces.

Persons so constituted as to generate much blood, should carefully avoid all those causes which tend to augment it; and when they are sensible of the quantity augmented, they should confine themselves to a light frugal diet, on fruits, bread, and tea, or water; they should often bathe their feet in warm water, taking night and morning a little cream of tartar; sleep but very moderately, and take much exercise. By using these precautions they may either prevent any occasion for bleeding, or should they really be obliged to admit of it, they would increase and prolong its good effects. These are also the very means which may remove all the danger that might ensue from a person's omitting to bleed at the usual season or interval when the habit—the fashion of bleeding—had been inveterately established in him.

We learn with horror and astonishment, that some have been bled eighteen, twenty, and even twenty-four times in two days; and others, some hundred times in the course of a few months. Such instances irrefragably demonstrate the continual ignorance of their physician or surgeon; and should the patient escape, we ought to admire the inexhaustible resources of nature, that survived so many murderous incisions.

The people entertain a common notion that the first time of bleeding certainly saves the life of the patient; but to convince them of the falsity of this notion, they need only open their eyes and see the very contrary fact to this occur but too unhappily every day; many people dying soon after their first bleeding. Were their opinion right, it would be impossible that any person should die of the first disease that seized him, which yet daily happens. Now the extirpation of this absurd opinion is really become important, as the continuance of it is attended with some unhappy consequences: their faith in, their great dependance on, the extraordinary virtue of this first bleeding makes them willing to omit it, that is, to treasure it up against a distemper from which they shall be in the greatest danger; and thus it is deferred as long as the patient is not extremely bad, in hopes that if they can do without it then, they shall keep it for another and more pressing occasion. Their present disease in the meantime rises to a violent height; and then they bleed, but when it is too late; and instances have occurred of many patients who were permitted to die, that the first bleeding might be reserved for a more important occasion. The only difference between the first bleeding and any subsequent one is, that the first commonly gives the patient an emotion which is rather hurtful than salutary.

ON PURGES.

THE stomach and bowels are emptied either by vomiting or by stools, the latter discharge being much more natural than the first, which is not effected without a violent motion, and one indeed to which nature is repugnant. Nevertheless, there are some cases which really require this artificial vomiting; but these excepted, (some of which we have already pointed out,) we should rather prefer those remedies which empty the bowels by stool.

SIGNS WHICH INDICATE A NECESSITY FOR PURGING.

1. A disagreeable taste or savour of the mouth in a morning, and especially a bitter taste; a foul furred tongue and teeth; disagreeable eructations or belchings, flatulence, and distension.

2. A want of appetite which increases very gradually, without any fever; which degenerates into a disgust or total aversion to food; and sometimes communicates a bad taste to the very little such persons do eat.

3. Retchings to vomit in a morning fasting, and sometimes throughout the day; supposing such not to depend on a woman's pregnancy, or some other disorder in which purges would be either useless or hurtful.

4. A vomiting up of bitter or corrupted humours.

5. A manifest sensation of a weight or heaviness in the stomach, the loins, or the knees.

6. A want of strength sometimes attended with restlessness, ill-humour, or peevishness, and melancholy.

7. Pains in the stomach, frequent pains in the head, or vertigoes; sometimes a drowsiness, which increases after meals.

8. Some species of cholics; irregular stools, which are sometimes very great in quantity, and too liquid for many times together; after which an obstinate costiveness ensues.

9. A pulse less regular and less strong than what is natural to the patient, and which sometimes intermits.

When these symptoms, or some of them, ascertain the necessity of purging a person, not then attacked by any manifest disease, (for we are not speaking here of purges in such cases,) a proper purging medicine may be given him; such as the following

PURGING PILLS.

Take of the compound extract of colocynth, and the extract of jalap, half a drachm each;
Of calomel, thirty grains:
Mix,—and divide into eighteen pills. Two a dose.—If there be an objection to calomel, it may be left out,—then four will be a dose.

PURGING POWDERS.

Take of gamboge, six grains;
Of scammony, ten grains;
Of jalap, fifteen grains:
Mix,—and divide into three powders: one to be taken every three hours until successful.

The bad taste in his mouth; the continual belchings; the actual vomitings, and melancholy, discover that the cause of his disorder resides in the stomach, and shew that a vomit will be of service to him. But when these signs or symptoms are not evident, the patient should take such purging or opening remedies, as are particularly indicated by the pains, whether of the loins, from the cholic, or by a sensation of weight or heaviness in the knees.

WHEN TO ABSTAIN FROM EITHER VOMITING OR PURGING.

1. Whenever the complaints of the patients are founded on their weakness, and their being already exhausted.

2. When there is a general dryness of the habit, a very considerable degree of heat, some inflammation, or a strong fever.

3. Whenever nature is exerting herself in some other salutary evacuation; whence purging must never be attempted in critical perspirations; during the monthly discharges; nor during a fit of the gout.

4. Nor in such inveterate obstructions as purges cannot remove, and really do augment.

5. Neither when the nervous system is considerably weakened.

CASES IN WHICH IT MAY BE PROPER TO PURGE, BUT NOT TO GIVE A VOMIT.

1. When the patient abounds too much with blood, since the efforts which attend vomiting, greatly augment the force of the circulation; whence the blood-vessels of the head and of the breast, being extremely distended with blood, might burst, which must prove fatal on the spot, and has repeatedly proved so.

2. For the same reason they should not be given to persons who are subject to frequent bleeding from the nose, or to coughing up or vomiting of blood; to women who are subject to excessive or unseasonable discharges of blood, &c.; nor to those who are with child.

3. Vomits are improper for ruptured persons.

When any person has taken too acrid or too sharp a vomit, or a purge which operates with excessive violence; whether this consists in the most vehement efforts and agitations, the pains, convulsions, or swoonings, which are their frequent consequences; or whether that prodigious evacuation or emptiness their operation causes, which may hurry the patient off; instances of which are but too common among the lower class of the people, who much too frequently confide themselves to the conduct of ignorant men-slayers: in such unhappy cases, we should treat these unfortunate persons as if they had been actually poisoned by violent corroding poisons; that is, we should fill them as it were with draughts of warm water, milk, oil, barley-water, almond-milk, emollient clysters with milk, and also bleed them plentifully if their pains are excessive, and their pulses strong and feverish.

The excessive discharge is to be stopped, after having plied the patient plentifully with diluting drinks, and ten drops of laudanum.

Flannels dipped in hot water are very serviceable. But should the vomiting solely be excessive, without any purging, emollient clysters with oil and the yolk of an egg, must be given; and the patient should be placed in a warm bath.

Purges frequently repeated without just and necessary indications are attended with much the same ill effects as frequent bleedings. They destroy the digestions; the stomach no longer or very languidly exerts its functions; the intestines prove inactive; the patient becomes liable to severe cholics; perspiration is disordered; defluxions ensue; nervous maladies come on, with a general languor; and the patient proves old long before the number of his years have made him so.

Much irreparable mischief has been done to the health of children, by purges injudiciously given and repeated. They prevent them from attaining their utmost natural strength, and frequently contract their due growth. They ruin their teeth; dispose young girls to future obstructions; and when they have been already affected by them, they render them still more obstinate.

It is a prejudice too generally received, that persons who have little or no appetite need purging; since this is often very false, and most of those causes which lessen or destroy the appetite, cannot be removed by purging; though many of them may be increased by it.

Persons whose stomachs contain much glairy viscid matter suppose, they may be cured by purges which seem at first to relieve them: but this proves a very slight and deceitful relief. These humours are owing to that weakness and laxity of the stomach which purges augment; since notwithstanding they carry off part of these viscid humours generated in it, at the expiration of a few days there is a greater accumulation of them than before; and thus by a reiteration of purging medicines, the malady soon becomes incurable, and the health is irrecoverably lost. The real cure of such cases is effected princi-

pally by decoction of bark with diluted sulphuric acid and rhubarb occasionally.

The custom of taking stomachic medicines infused in brandy, spirit of wine, cherry water, &c. is always dangerous; for notwithstanding the present immediate relief such infusions afford in some disorders of the stomach, they really by slow degrees impair and ruin that organ; and it may be observed, that as many as accustom themselves to drams, go off, just like excessive drinkers, in consequence of their having no digestion; whence they sink into a state of depression and languor, and die dropsical.

Either vomits or purges may be often beneficially omitted, even when they have some appearance of seeming necessary, by abating one meal a day for some time; by abstaining from the most nourishing sorts of food; and especially from those which are fat; by drinking freely of cool water, and taking extraordinary exercise.—The same regimen also serves to subdue, without the use of purges, the various complaints which often invade those who omit taking purging medicines at those seasons and intervals in which they have made it a custom to take them.

THE BEST EMETIC.

Take of ipecacuanha, thirty grains;
Of tartar emetic, two grains:
Dissolve in a little water, and take it, drinking plentifully of chamomile tea.

The doses which are generally recommended, are those which are proper for a grown man of a vigorous constitution. Nevertheless there are some few for whom they may be too weak: in such cases they may be increased by the addition of a third or fourth part of the dose prescribed.—But should they not operate in that quantity, we must be careful not to double the dose, much less to give a three-fold quantity; which has sometimes been done, and that even without its operation, and at the risk of killing the patient, which has not seldom been the consequence. In case of such purging not ensuing, we should rather give large draughts of whey sweetened with honey, or of warm water, in a quart of which an ounce or an ounce and a half of common salt must be dissolved; and this quantity is to be taken from time to time in small cups, moving about with it.

The fibres of country people who inhabit the mountains, and live almost solely on milk, are so little susceptible of sensation, that they must take such large doses to purge them, as would kill all the peasantry in the vallies.

Notwithstanding our cautions on this important head, whenever an urgent necessity requires it, purging must be recurred to at all times and seasons: but when the season may be safely selected, it were right to decline purging in the extremities of either heat or cold; and to take the purge early in the morning, that the medicines may find less obstruction or embarrassment from the contents of the stomach. Every other consideration, with relation to the stars and the moon, is ridiculous and void of any foundation. The people are particularly averse to purging in the dog-days; and if this were only on account of the great heat, it would be very pardonable; but it is from an astrological prejudice, which is so much the more absurd, as the real dog-days are at thirty-six days distance from those commonly reckoned such; and it is a melancholy reflection, that the ignorance of the people should be so gross in this respect in our enlightened age; and that they should still imagine the virtue and efficacy of medicines to depend on what sign of the zodiac the sun is in, or on any particular quarter of the moon. Yet it is certain in this point, they are so inveterately attached to this prejudice, that it is but too common to see country people die in waiting for the sign or quarter most favourable to the operation and effect of a medicine, which was truly necessary five or six days before either

of them. Sometimes too that particular medicine is given to which a certain day is supposed to be auspicious and favourable, in preference to that which is most prevalent against the disease.

When a vomit or a purge is to be taken, (unless it be in disease,) the patient's body should be prepared for the reception of it twenty-four hours before, by taking very little food, and drinking some glasses of warm water, or of a light tea of some herbs.

He should not drink after a vomit until it begins to work; and then he should drink very plentifully of warm water, or a light infusion of chamomile flowers, which is preferable.

It is usual after purges to take some thin broth or soup during their operation; but warm water sweetened with sugar or honey, or an infusion of succory flowers, would sometimes be more suitable.

As the stomach suffers in some degree as often as either a vomit or a purge is taken, the patient should be careful how he lives and orders himself for some days after taking them, as well in regard to the quantity as quality of his food.

We shall say nothing of other articles taken by way of precaution, such as soups, whey, waters, &c. which are but little used among the people; but confine ourselves to this general remark, that when they take any of these precautionary things, they should enter on a regimen or way of living that may co-operate with them, and contribute to the same purpose.—Whey is commonly taken to refresh and cool the body; and while they drink it, they deny themselves fruit, sallads, &c. They eat nothing then but the best and heartiest flesh-meats they can get; such vegetables as are used in good soups; eggs, and good ale; notwithstanding this is to destroy, by high and heating aliments, all the attemperating cooling effects expected from the whey.

Some people propose to cool and attemperate their blood by soups and a thin diet. Happily in such a case the error in one respect often cures that in the other; and these kinds of soup, which are in no wise cooling, prove very serviceable in consequence of the cause of the symptoms which they were intended to remove, not requiring any coolers at all.

The general physical practice of the community, which unhappily is but too much in fashion, abounds with similar errors. We will just cite one on account of its dangerous effects. Many people suppose pepper cooling, though their smell, taste, and common sense, concur to inform them of the contrary. It is the very hottest of spices.

The most certain preservative, and most attainable too by every man, is to avoid all excess in eating and drinking. People generally eat more than thoroughly consists with health or permits them to attain the utmost vigour of which their natural constitutions are capable.

The custom is established, and it is difficult to eradicate it: yet we should at least resolve not to eat but through hunger, and always under a due subjection to reason; because, except in a very few cases, reason constantly suggests to us not to eat when the stomach has an aversion to food. Sobriety of itself cures such maladies as are otherwise incurable, and may recover the most shattered and unhealthy persons.

CAUTIONS AGAINST DISEASES OF THE DOG-DAYS.

The oppressive heat which prevails during the dog-days, together with the heavy dews of the evenings, give rise to feverish symptoms, with purging and cholera-morbus, of which we have treated in another part of our work. The lassitude and inability to activity are more frequent than any of the more alarming symptoms, and although not dangerous, are the forerunners of serious diseases, if not counteracted. Drinking to intoxication at this time of the year, proves highly dangerous, and many bilious fevers and apoplexies are the consequences. A little caution during

these days may prevent very fatal attacks of disease; and the following leading points will comprehend all that is necessary.

1. Exercise but little, and in any way but on foot, if possible.

2. Let the covering of the body, particularly the head, neck, and feet, be light.

3. Do not lie with more than a sheet and coverlet, except a very light blanket, which may be used at pleasure.

4. Change the linen whenever it becomes wet by perspiration.

5. Do not drink water alone, but mixed with a little cream of tartar.

6. Drink but little wine or spirits, and alway diluted.

7. Eat no fish and but very little meat.

8. Bathe with the restrictions we laid down under the head of "Bathing."

9. Take one of the following pills every second night:

LAXATIVE PILLS FOR THE DOG-DAYS.

Take of sub-muriate of mercury, six grains;
Of extract of jalap, a scruple;
Of rhubarb, a scruple;
Of oil of cloves, five drops;
Mix, and divide into six pills.

ANATOMY.

ARTICLE III.

OF THE MUSCLES.

(INTENDED FOR PAINTERS AND SCULPTORS, AS WELL AS STUDENTS IN ANATOMY.)

A KNOWLEDGE of the muscles of the human body is as requisite to the painter and the sculptor, as to the surgeon, and with this fact we are happy to have an opportunity of laying before the public a series of Plates illustrative of this part of anatomy, and which are copied from the first masters of Italy and France. In the prosecution of the subject, we shall simplify as much as possible the scientific crudities with which it is so mixed, and render it easy to every capacity.

INTRODUCTORY ADDRESS.

To doubt if the study of anatomy is requisite to a painter, is the same thing as to doubt if, in order to learn any science, a man must first make himself acquainted with the principles of it. It would be an useless waste of time to cite in confirmation of this truth, the authorities of the ancient masters, and the most celebrated schools. A man who is unacquainted with the form and construction of the several bones which support and govern the human frame, and does not know in what manner the muscles moving these bones are fixed to them, can make nothing of what appears of them through the integuments with which they are covered; and which appearance is, however, the noblest object of the pencil. It is impossible for a painter to copy faithfully what he sees, unless he thoroughly understand it, without being guilty of great mistakes.

It is enough for the painter to be acquainted with the skeleton; in other words, with the figure and connection of the bones, which are, in a manner, the pillars and props of the human body; the origin, progress, and shape of the muscles, which cover these bones; as also the different degrees in which nature has clothed the muscles with fat; for this substance lies thicker upon them in some places than in others. Above all, he should know in what manner the muscles effect the various motions and gestures of the body.

A muscle is composed of two tendinous and slender parts, one called the *head* or origin, and the other the *tail* or insertion, both terminating at the bones; and of an intermediate part, called the *belly*. The action of a muscle consists in an extraordinary swelling of this intermediate part, while the head remains at rest, so as to bring the tail nearer the head, and consequently the part into which the tail of the muscle is fixed, nearer to that into which the head is inserted.

There are many motions, to effect

which several of the muscles (called *co-operating muscles)* must swell and operate together, while those calculated to effect a contrary motion, (called *antagonist muscles)* appear soft and flaccid: thus, for example, the biceps and the brachiœus internus, labour when the arm is to be bent, and become more prominent than usual; while the gemellus, the the brachiœus externus, and the anconæus, whose office is to extend the arm, continue, as it were, flat and idle; the same happens respectively in all the other motions of the body; when the antagonist muscles of any part operate at one and the same time, such part becomes rigid and motionless; this action is called *tonic*.

Michael Angelo, whose knowledge of anatomy surpassed any other artist of his time, intended to give a complete treatise upon the subject, and it is no small misfortune that he never accomplished so useful a design; the want of Michael Angelo's precepts, may in some measure find a compensation in the present publication.

Of the infinite number of muscles discovered by curious myologists, there are not above eighty or ninety with which nature sensibly operates all those motions which he can ever have occasion to imitate or express; these, indeed, he should closely study, these he should carefully store up in his memory, so as never to be at the least loss for their proper figure, situation, and office.

The better to understand the general effect, and remember the number, situation, and play of the muscles, it will be proper to compare, now and then, the studies the young painter has been engaged upon with the living body covered with its fat and skin, and above all with the Greek statues still in being, by which means he will correct the error, which ever the great Michael Angelo fell into, in displaying his knowledge of anatomy, by seeming to forget that the muscles are softened by the skin which covers them; and that they are less visible in children, in women, and in young men, than in confirmed and vigorous manhood. There are many exercises which a young painter should go through while engaged in the study of anatomy, in order to make himself more thoroughly master of that science: for example, the thighs of any figure, a Laocoon, for instance, being given, he should add to them legs suitable to that state in which the muscles of the thighs are represented; that is, the muscles which serve to bend and extend the legs, and to effectuate in them such a precise position and no other; to the simple contour of an anatome, or a statue, he should add the parts included by it, and give it a system of muscles conformable to the quality of that particular contour; for every contour denotes some one certain attitude, motion, or exertion.*

In the works of Anatomy, which have been hitherto published for the assistance of painting, the head, feet, and hands, have been injudiciously neglected, they shall be here separately delineated of a size to render the study of them of essential service to the young artist, as well as to the anatomist.

We shall begin with the *Cranium*.

DESCRIPTION OF PLATE NO. I.

A The frontal bone.
B The left parietal bone.
C The temporal bone.
D The occipital bone.
E The holes of the orbits, where are fixed the eyes.
F The proper bone of the nose, called the *nasal*.
G The zygomatic bone.
H The maxillary bone.
I The teeth.
L The lower jaw bone.

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* Each part should be copied several times, and carefully observed; the best way to profit is to draw from recollection what has been studied in the day, and by comparing it with the original, correct the mistakes.—This practice will produce many good effects; and by thus exercising the memory, it will retain with facility an essential qualification in this and every other science, since the intent of labour and application, is to recollect what has been learned.

SCARLATINA, OR SCARLET FEVER.

THERE are two species of this complaint, the MILD and the MALIGNANT; they are both contagious, and only differ in this,—that one is attended with a putrid sore throat and very high fever, while the other is attended with fever only. Children are more liable to Scarlatina than adults, and it is common in autumn and the beginning of winter. Sudden changes from heat to cold is the most frequent cause of the disease, when it does not arise from contagion. The disorders with which scarlatina may be confounded, are measles and putrid quinsey.

The following are its characteristic symptoms: the redness appears on the *second* day after the fever; in the measles it does not appear till the *fourth*—it is also of a vivid red colour. The fever begins with confusion of ideas, languor, lassitude, fits of heat and cold, and head-ache; the urine is high coloured and thick;—on the disappearance of the colouring of the skin, a perspiration comes on in favourable cases, and the skin peels off.

CURE OF SCARLATINA.

When it is mild, observe the following directions, which in general will be sufficient to remove the disease:—

1. Keep the apartment clean and airy.
2. Light clothing.
3. Give an emetic.
4. Let the patient drink freely of whey.
5. Give one of the following powders every fourth hour, first having freed the bowels by some simple purgative.

POWDERS FOR SCARLATINA.

Take of nitre, a drachm and a half;
Of tartar emetic, three grains;
Of ipecacuanha, five grains;

Mix well together in a mortar, and divide into six powders;—one is a dose.

Oranges, lemonades, and tamarind drinks, are all good in this disorder.

If the disease assume a malignant character, with an ulcerated throat, the treatment of it should always be conducted by a physician. We will, however, speak of the leading points, under the head of "PUTRID SORE THROAT," in a future part of the work.

AUTHORITIES

FROM THE HISTORY OF M. DE THOU, AND THE DIALOGUES OF CARDAN, CONCERNING CORNARO'S METHOD OF PROLONGING LIFE AND PRESERVING HEALTH.

CHAPTER VII.

THE extract of the thirty-eighth book of the History of M. President de Thou, runs thus:—

"Lewis Cornaro was an extraordinary and admirable instance of a long life; for he lived a hundred years, healthful in body, and sound in mind. He was descended from one of the most illustrious families of Venice; but through some misfortune, owing to his birth, was excluded from all public honours and state employment. He married at Udina, in Friuli, one Veronica, of the family of Spiltemberg: and being in possession of a good estate, he was desirous of having children to inherit it. In short, what by the prayers he put up, and by the help of physicians, he conquered the point; and his wife, whom he dearly loved, and who was pretty well gone in years, was brought to bed of a daughter, when he least expected it. This daughter, named Clara, was married to John, the son of Fantina Cornaro, a rich family of Cyprus, by whom she had eight sons and three daughters.

"In a word, Lewis Cornaro, by his sobriety, and the regimen he observed in his diet, corrected the infirmities he had contracted by intemperance in his youth, and by the strength

of his reason, moderated his inclinations and propensity to anger. So that in his old age he had as good a constitution of body, and as mild and even-tempered a mind, as before, in the flower of his youth, he was infirm, and apt to fly out into a passion. He composed several Treatises when he was very old, wherein he tells us of the irregularity of his former life, and of his reformation, and the hopes he had of living long. Nor was he mistaken in his account, for he died calmly, and without any pain, being above a hundred years old, at Padua, where he had taken up his residence. His wife, almost as old as himself, survived him: but within a short time after, died a very easy death. They were both buried in St. Anthony's church, without any pomp, according as they had ordered by their last will and testament.

In the Dialogues of Cardan, between a philosopher, a citizen, and a hermit, concerning the methods of prolonging a man's life, and preserving his health, Cardan introduces the hermit discoursing thus:—

"Whereas, in solid nourishments, and even in drinks, there are several things worthy of our observation, viz. their natural qualities, and those which they acquire by the seasoning of them; the order and the time wherein we ought to make use of them, without mentioning the quantity of those very aliments and drinks; it is not without reason that the question is asked, which of these things is to be regarded most?

"Some have declared themselves for the quantity, maintaining, that it has in effect a greater share than any other thing, in the preservation of health and life.

"The famous Lewis Cornaro, a noble Venetian, was of this mind. He treated on this subject at the age of fourscore, enjoying then a perfect soundness of body and mind. This venerable old man, at the age of thirty-six, was seized with so violent a distemper, that his life was despaired of. Ever after that time, he took care to eat just the same quantity every meal; and though he was not free from a great many fatigues, and some misfortunes which occasioned his brother's death, yet the exactness of his regimen preserved him always in health, with an entire freedom of mind.

"At seventy years of age, a coach, in which he travelled, was overthrown, by which he was dragged a great way, wounded in the head, and in one of his legs and arms. The physicians despaired of his recovery, and were for applying a great many remedies to him. But Cornaro tells us, that being well satisfied of the temperature of his humours, he rejected all the assistance of the physicians, and was quickly cured.

"Nine years after, when he was almost fourscore, his friends and his very physicians advised him to add two ounces to his ordinary diet: within ten or twelve days after, he fell sick, the physicians gave him over, and he himself began to fear the worst: however, he recovered his health, though with much difficulty

"The same author adds, that being fourscore years old, his sight and hearing were sound and good; that his voice held strong; that he sometimes sung in concert with his grandchildren; that he could either ride or walk a foot very well, and that he composed a comedy, which came off with applause.

"This wise old gentleman was then of the opinion, that a regular and small quantity of food contributed more than any thing else to the preservation of health; for he makes no mention of his choice of diets. I am used, says Cornaro, to take in all twelve ounces of solid nourishment, such as meat, and the yolk of an egg; and fourteen ounces of drink. It is to be lamented that he did not precisely tell us whether he took this quantity once or twice a day; however, since he tells us that he did eat but a very little, it seems as if he did so but once a day.

"The famous civilian, Panigarolus, who lived to a great age, though of a very weak constitution, never ate or drank above twenty-eight ounces a day. It is true, indeed, that every

fortnight he purged himself, but he lived to above ninety.

"It seems then, as if Cornaro was minded to keep from us a perfect knowledge of his regimen, and only tells us, that he had found out an extraordinary one; since he has not informed us whether he took the quantity he speaks of, once or twice a day; nor whether he altered his diet; for he treats on that subject as darkly and obscurely as Hippocrates.

"It is likewise strange, that the quantity of his liquid should exceed that of his solid diet; and the rather, because what he did eat was not equally nourishing, since he took the yolks of eggs as well as meat. In truth, to me he seems to talk more like a philosopher than a physician."

Thus far Cardan: but, by his leave, if he had read what Cornaro has written concerning a sober and regular life with attention, he would have passed a sounder judgment on his writings; for, in them, he not only speaks of the quantity, but in express terms, discourses of the quality of his diet.

ANECDOTES OF LONGEVITY.

THE following instances of longevity have been selected for the Medical Adviser:

Year.		Age.
1759	Don Cameron	130
1766	John Delasomer	130
——	George King	130
1767	John Taylor	130
1774	William Beattie	130
1778	John Watson	130
1780	Robert M'Bride	130
——	William Ellis	130
1764	Eliza Taylor	131
1775	Peter Garden	131
1761	Eliza Merchant	133
1772	Mrs. Keith	133
1767	Francis Ange	134
1777	John Brookey	134
1714	Jane Harrison	135
1759	James Sheille	136
1768	Catherine Noon	136
1771	Margaret Foster	136
1776	John Mariat	136
1772	J. Richardson	137
1793	— Robertson	137
1757	William Sharpley	138
1768	J. M'Donough	138
1770	— Fairbrother	138
1772	Mrs. Clum	138
1766	Thomas Dobson	139
1765	Mary Cameron	139
1732	William Leyland	140
——	Countess of Desmond	140
1770	James Jands	140
1778	Swarling (a monk)	142
1773	Charles M'Finlay	143
1757	John Effingham	144
1782	Evan Williams	145
1766	Thomas Winsloe	146
1772	J. C. Dradkenberg	146
1652	William Mead	148
1648	Thomas Damme	149
1768	Francis Confi	150
1542	Thomas Newman	152
1656	James Bowels	152
——	Henry West	152
1635	Thomas Parr	152
1762	A Polish Peasant	157
1797	Joseph Surrington	160
1668	William Edwards	168
1670	Henry Jenkins	169
1780	Louisa Truxo	175

The following aged persons have died of late years:

1821	Cato Overing, a black	110
1823	Ellen Tate	110
——	Mrs. Ormesby	110
——	Mr. J. Larling*	110
1808	Col. J. Stewart	111
1820	Bridget Byrne	111
1822	Joseph Mills	111
1823	J. Mackenzie	111
1821	Ann M'Rae	112
1822	Sam. Welch, an American†	112
1818	Thomas Botwell	113
——	William Napier	113
1823	A Woman in Finland	115
1818	Ann Smallwood	116
——	Alexander Campbell	117
1822	A Female Slave, Jamaica	120
——	T. Gilbert	120

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* He left 130 children and grandchildren.

† His father was near 90, his mother 100, a sister 100, and a brother upwards of 90.

Year.		Age.
1822	J. Woods	122
1818	David Ferguson . . .	124
1822	Thady Doorley *. . .	
1821	Margaret Darby, a black	130
1822	Lucretia Stewart . . .	130
1819	Roger Hope Elliston . .	140
1824	Nancy Lawrence, a black,	140
1820	Solomon Nibet . . .	143

The following aged persons were living in the several years set against their respective names:—

1821	A widow, named Miller, at Lynn	107
1823	John Macdonald. . . .	108
1818	John Dorman, Strabane, Ireland	109
1820	At Adria, in Lombardy, a Catholic Priest . .	110
1823	Peter Grant, a Highlander	110
1821	At Ballyragget, Michael Brennan	112
1822	Felix Buckley, Esq. . .	113
1818	At Charleston, a Negro .	118
1823	A female at Calabria . .	125
1819	H. Francisco, an American	130
1819	At Lake Champlain, a German	135
1821	At Freesneen, Wœvre Verdem, a Female . .	155

NERVOUS HEAD-ACHE.

NERVOUS HEAD-ACHE may be divided into three species. The first simply depends on debility, and is not confined to either sex in particular. The second is termed *clavus hystericus*, which is peculiar to females, and is symptomatic of uterine derangement. The third species is called periodic head-ache, on account of its supervening at regular or irregular periods, and resembling in this respect attacks of intermittent fever.

With a view of elucidating the nature of these several species, and of pointing out to the reader their particular characters, we shall give a history of them under their respective heads.

We may be able to distinguish the first species from others by the following symptoms: an acute pain is felt in the forehead and temples, accompanied with a sense of tightness over the whole head. Sometimes a cold sensation will be experienced on the crown of the head, and from that extend downwards to the spine, as if cold water were trickling in that direction; there is likewise a numbness felt about the scalp. Giddiness is almost invariably a symptom of this head-ache; some persons describe it as being confined to the top of the head; others say that it is in the forehead that they feel the swimming, as it is usually termed. This last symptom is met with, more or less, in every kind of head-ache, but it proceeds from a very opposite state of things, which makes it of consequence to be able to discriminate from whence it arises. This may be pretty well ascertained, by attending to the following remarks. If the giddiness be produced by debility, stooping the head will not increase it, unless it be done for an inconvenient time; neither will shaking the head aggravate the pain. Now were the head-ache to depend in vascular fulness of the brain, the contrary would be experienced.

The pulse is most commonly small, quick, and produces a sense of vibration to the finger; but in many instances it will not exceed fifty beats in a minute; and we have known cases in which it could not be felt at the wrist. Under these circumstances, the patient complains of being cold, and the whole nervous system is in great disorder. In severe cases, the head feels as if it would burst, which causes people to tie a handkerchief tight round the forehead, in the hope thereby of getting relief. Sometimes we find this malady co-existing with a bilious state of the system, which makes it a matter of some difficulty to treat, owing to the discrepancy of their respective causes; for the active purging which the latter complaint calls for, would prove detrimental to this. To this circumstance may be ascribed the errors which are made

* This person was married when 107 years of age, to a woman aged 31.

in attempting to remove this affection by active remedies, such as by leeching, blistering, and purging; all or any of which only add fuel to the flame.

It is of consequence to come to a correct conclusion as to the true character of this species of head-ache, by which erroneous practice may be avoided. It may be distinguished from a bilious head-ache—First, by the pulse not having the fulness and jerk which is observed in that malady;—Secondly, by the functions of the stomach not being disturbed, for we do not find vomiting as an attendant symptom in this species, unless something particular occur to excite it;—Thirdly, although the eyes are almost always affected in this complaint, yet the pain does not confine itself to one eye in particular, which is very frequently the case in bilious head-aches.

The cause of nervous head-ache is generally debility, and that is most frequently induced by indigestion. If the stomach fails in performing its functions efficiently, there will be necessarily a diminution of the nutriment which is necessary for the animal economy; hence irritability of the whole system is produced, with which the brain sympathizes. Among other causes may be mentioned, great fatigue, either of body or mind; confined and unwholesome air; anxiety; sudden alarms; and that corroding feeling of the mind, suspense. The treatment of some acute diseases very frequently causes this species of head-ache; especially if that treatment have been bold and vigorous; such as bleeding, purging, &c. Students are particularly liable to it; so are those whose employments are sedentary, such as females who derive their livelihood by needle-work.

In considering the treatment necessary to pursue for the purpose of curing this affection, our attention is to be directed to its causes. As indigestion forms the principal of these, means ought to be resorted to to remove it.

When a nervous head-ache proceeds from irritability of the nervous system, which appears to be induced by some shock it has sustained, we would recommend the exhibition of medicines which combine a cordial with a tonic property. The following has been employed with great advantage in such cases.

Take of aromatic confection, ten grains;
Of æther, thirty drops;
Of infusion of cascarilla, one ounce and a half;
Of compound tincture of lavender, twenty drops:
Mix for a draught.—One to be taken three times a day.

As constipating effects may be expected to result from the use of that medicine, it would be proper to take occasionally some gentle laxative.—The following will be suitable.

Take of the mass of pill aloes, with myrrh, one drachm:
Divide into twelve pills,—two of which may be taken at bed-time.

The patient ought also adopt a light invigorating diet, which should be taken at regular hours. Stimulating and strengthening drinks are likewise indicated: as for instance, bottled ale or porter; if they be home-brewed they will be more eligible. Should malt liquors disagree with the stomach, brandy properly diluted with water may be substituted. Foreign wines are very fit in such cases, if the circumstances of the patient will permit. These all, however, must be taken with moderation.

If this complaint have resulted from over-exerting the mind in literary pursuits, relaxation from study is the best mode of cure. Sometimes cases of this kind have proceeded so far as to threaten the empire of reason with annihilation; such as in the instance of the poet Cowper. It will be then requisite to recommend to the patient an entire change of scene; where the soothings of friendship, and the cheerful circle, may help to remove his morbid associations.

CLAVUS HYSTERICUS,

or *Females' Head-ache*, is of a species of head-ache which we believe is exclusively to be met with among females. It takes its name from the circumstance of the pain being confined to so small a space that a nail might be driven into the part, and its being connected with uterine disturbance.

It consists of a very acute pain, which generally remains stationary in one temple at a time, and most commonly in the right. When the complaint accompanies bilious affections, the eyes are more or less painful. Over the countenance there is spread an indication of suffering, and under each eye a dark sallowness appears. With the above symptoms there may be remarked those which usually attend hysteric disorders, such as depressed spirits, fainting fits, cramps in various parts of the body, particularly when the patient is in bed: also the *globus hystericus*, which is a sensation as if a ball were rising out of the stomach into the throat, and sleep is disturbed by night-mare and frightful dreams: giddiness is here too a leading symptom, and it generally remains after the others have been removed. The patient, under the joint influence of bodily suffering and mental depression, secludes herself from the society of those who were once her solace and delight.

We find that this malady frequently proceeds from uterine derangement, which is generally produced by relaxation and irregularity in the periodic discharge to which females are liable. These things may be frequently traced to dissipated habits and fatiguing pastimes, particularly that of dancing. A nervous head-ache of this kind is likewise induced, in a remote degree, by the passions of the mind, and disappointments arising out of them. Sometimes such affections may be ascribed to derangement of the stomach and bowels, which is often the cause of irritation being communicated to the brain and nervous system.

In treating this malady, our first object will be to search for its immediate causes, for the purpose of removing them. When it is produced by relaxation and derangement in the uterine economy, medicines of a tonic and astringent nature ought to be taken. One of the most efficient adjuncts to this plan of treatment that we know of, is the cold hip-bath. It should be taken in the morning on rising; taking care, however, not to employ it, if there be any perspiration perceptible on the skin. It should be first used at a tepid temperature, and gradually reduced to the proper degree of coldness, which may be about 40°. Fahrenheit. We consider three or four dips into the bath quite sufficient, and indeed more productive of benefit than remaining in it, as is done on other occasions. The good effects arising from a sudden emersion, will be rendered evident by the glow of warmth which is produced on the skin. There are some patients who feel great repugnance to the use of this remedy, owing to the inconvenience and disagreeableness resulting from its employment. To such we could hold out no hopes of a cure by trusting alone to medicine; for we cannot recollect a single case of this kind which was permanently relieved, unless the bath had been likewise resorted to.

With respect to the medical treatment, we never knew of any good being produced by medicines which are called nervines, provided they were alone relied upon, to the exclusion of other remedies. In some instances indeed, where the nervous system was much disturbed, some little benefit seemed to have arisen from their use, as far as they operated as a cordial. When such medicines are indicated, that quality will be found in this draught, viz.

Take of compound tincture of lavender, twenty drops;
Of fœtid spirits of ammonia, thirty drops;
Of æther, twenty drops;
Of camphor mixture, one ounce and a half:
Mix for a draught.

But our chief reliance is to be placed on tonic astringents, because they operate in giving tone to the nervous system in general, while the bath serves as a powerful auxiliary in removing the local causes. Sulphuric acid is one of the most useful medicines of that kind, when properly diluted. By combining it with the infusion of roses, which already contains a proportion of it, a very agreeable and efficient draught will be formed. This for instance:

Take of infusion of roses, one ounce and a half;
Of diluted sulphuric acid, fifteen drops;
Of compound tincture of cardamoms, one drachm:
Mix for a draught.—One of which is to be taken three times a day.

This medicine ought to be regularly taken for nearly a month, for it is only by perseverance that any remedy can by of service. If the bowels be constipated by it, some laxative may be occasionally taken; such as compound decoction of aloes, in the dose of a wine-glassful in the morning.

When this disorder is owing to a deranged state of the alimentary canal, purgatives, joined to the occasional administration of small doses of blue pill, will be most suitable to the case. If passions of the mind seem to induce it, changing the place of residence of the patient, and employing the mind in rational pursuits, will most likely tend to bring back the rose to the cheek of the patient.

PERIODIC HEAD-ACHE

is the name of the third species of nervous head-aches. It makes its approaches at regular or irregular periods, sometimes every twenty-four hours; and at other times varying its attacks from that time to thirty-six hours: and remitting after the manner of an ague; in some cases it comes on every fortnight.

The pain is situated on each side of the head, but more frequently extends over the whole of it, and accompanied by a sense of drowsiness or stupor. Sometimes the pain will remove from the head and attack the face (generally under the eye,) the anguish of which is so great as to cause it to be mistaken for tic doloreux; and after it thus torments the patient for an indefinite time, it will gradually decline, leaving a sense of smarting, which remains till another attack returns. Some cases terminate with vomiting of a sour fluid.

Various are the causes of this variety of head-ache. Sometimes the seasons of the year appear to exercise an influence in producing it; but this is not a very common cause. If a careful inquiry be instituted, we think that there will be no great difficulty in tracing it to disorder in the digestive organs; for we may remark, that an acute paroxysm frequently ensues after eating. Here too we find that the mind has a considerable share in its production, as, in cases of long standing, the least perturbation will give rise to an attack of head-ache. Another cause to which this malady is ascribed, is worms in the intestinal canal; the irritation of which influences the brain. When that is the case, the appetite is variable, being sometimes voracious, and at others impaired, or quite gone.

The treatment of this affection must be regulated by the things that either remotely or immediately produce it. When it can be traced to indigestion, such remedies as are pointed out for that disease ought to be resorted to. If it be induced by intestinal worms, medicines calculated to expel them will be indicated. The best for that purpose is spirits of turpentine. When the head-ache is very acute, the application of fomentations will prove serviceable in mitigating the pain; but its violence should never cause persons to have recourse to blood-letting, either local or general, for it will invariably only aggravate the complaint. It is difficult to convince patients of this, and hence the disease is rendered more obstinate by their applying leeches or blisters.

If there be habitual costiveness, and the bowels are oppressed with wind,

which always accompanies indigestion, gentle purging will be proper; but care must be taken not to carry it to such an extent as to induce debility. Medicines of that description should be of a warm aromatic nature, such as the following:

Take of rhubarb, fifteen grains;
Of sulphate of potass, one dr.
Of peppermint water, one oz. and a half;
Mix for a draught: one of which is to be taken if occasion require.

As we have seen that the confinement which is necessary in the avocations of persons, whose income probably depends upon a sedulous devotedness to them, is very frequently the cause of nervous head-ache, patients thus situated should appropriate a portion of each day in seeking a pure air, which, together with exercise on foot, would mainly conduce to remove many affections of this kind. It is of importance to all persons who are liable to nervous affections, to keep the mind amused by means of pursuits which will neither fatigue or harass it, as it may be frequently observed, that lowness of spirits and hypochondriacism are the mere effects of idleness and ennui. It is thus that the imaginary invalid employs his time, in tracing out symptoms and feelings, which at first only existed in his ideas, but which become realities from the circumstance of fancy.

To such persons we would recommend the practice of early rising, as lying long in bed has a great tendency to weaken the body, which predisposes it to these affections; and if the patient be in the country, joining some exercise to that salutary custom, will have a great effect in removing affections which are supposed to emanate principally from the mind, but which, in fact, originate from the nerves.

COLDS.

THERE are many erroneous prejudices with regard to colds, all of which may be attended with pernicious consequences. The first is, that a cold is never dangerous; an error which daily destroys the lives of many.

It is certain that no person dies merely of a cold, as long as it is nothing but a cold simply; but when from inattention and neglect, it is thrown upon and occasions disorders of the breast, it may and often does prove mortal. "Colds destroy more than plagues," was the answer of a very sagacious and experienced physician to one of his friends, who being asked how he was in health, replied, "Very well, I have nothing but a cold."

A second erroneous prejudice is, that colds require no means, no medicines, and that they last the longer for being nursed or tampered with. The last article may be true indeed with respect to the method, in which the person affected with them treats them; but the principle itself is false. Colds, like all other disorders, have their proper remedies; and are removed with more or less facility, as they are conducted better or worse.

A third mistake is, that they are not only considered as not dangerous, but are even supposed wholesome too. Doubtless a man had better have a cold than a more grievous disease; though it must be still better to have neither of them. The most that can reasonably be said and admitted on this point is, that when a checked or an obstructed perspiration becomes the cause of a distemper, it is fortunate that it produces rather a cold than any very dreadful disease, which it frequently does: though it were to be wished, that neither the cause nor its effect existed. A cold constantly produces some disorder or defect in the functions of some part or parts of the body, and thus becomes the cause of a disease. It is indeed a real disorder itself, and which, when in a violent degree, makes a very perceptible assault upon our whole machine. Colds considerably weaken the breast, and sooner or later considerably impair the health. Persons subject to frequent colds are never robust and

strong; they often sink into languid disorders; and a frequent aptitude to take cold is a proof, that their perspiration may be easily checked and restrained; whence the lungs become oppressed and obstructed, which must always be attended with considerable danger.

A cold in truth is almost constantly an inflammatory disease; a light inflammation of the lungs, or of the throat; of the membrane or very thin skin, which lines the nostrils, and the inside of certain cavities in the bones of the cheeks and forehead. These cavities communicate with the nose in such a manner, that when one part of this membrane is affected with an inflammation, it is easily communicated to the other parts.

It is scarcely necessary to describe the symptoms of a cold, and it may be sufficient to remark,

1. That their chief cause is the same with that, which most commonly produces the disease already treated of, that is, an obstructed perspiration, and a blood somewhat inflamed.

2. That whenever these diseases affect great numbers, many colds prevail at the same time.

3. That the symptoms which manifest a violent cold, greatly resemble those which precede or usher in these diseases. People are rarely attacked by great colds, without a shivering and fever; which last sometimes continues for many days. There is a cough, a dry cough, for some time; after which some expectoration ensues, which allays the cough, and lightens the oppression; at which time the cold may be said to be maturated or ripe. There are pretty often slight stitches, but unfixed or flying about, with a little complaint of the throat. When the nostrils happen to be the seat of the disorder, which is then very improperly termed a cold of the brain, it is often attended with a vehement head-ache, that sometimes depends on an irritation of the membrane, which lines the cavities in the bone of the forehead, or the maxillary sinuses, that is, the cavities of the jaws. At first the running from the nose is very clear, thin, and sharp; afterwards, in proportion to the abatement of the inflammation, it becomes thicker; and the consistence and colour of it resemble those of what others cough up. The smell, the taste, and the appetite are commonly impaired by it.

Colds seem to be of no certain duration or continuance. Those of the head or brain generally last but a few days; of the breast longer. Some colds, nevertheless, terminate in four or five days. If they extend beyond this term they prove really hurtful;

1. Because the violence of the cough disorders the whole machine; and particularly, by forcing up the blood to the head.

2. By depriving the person afflicted of his usual sleep, which is almost constantly diminished by it.

3. By impairing the appetite, and confusing the digestion, which is unavoidably lessened by it.

4. By weakening the lungs themselves through the continual agitation from coughing; whence all the humours being gradually determined towards them, as the weakest part, a continual cough subsists. Hence also they become overcharged with humours, which grow viscid there; the respiration is overloaded and oppressed; a slow fever appears; nutrition almost ceases; the patient becomes very weak; sinks into a wasting, an obstinate wakefulness and anguish, and often dies in a short time.

5. By reason that the fever, which almost constantly accompanies a great cold, concurs to wear the body down.

Wherefore, since a cold is a disease of the same kind with quinseys and inflammations of the breast, it ought to be treated in the same manner. If it be a violent one, blood should be taken from the arm, which may considerably shorten its duration: and this becomes more essentially necessary, whenever the patient is of a sanguineous ruddy complexion, abounds with blood, and has a strong cough, and great head-ache. Drinks, such as whey with nitre, elder-flower tea, or cream of tartar water, should be plentifully used. It is advanta-

geous to bathe the feet in warm water every night at going to bed. In a word, if the patient is put upon a regimen, the cure is very speedily effected.

The disorder indeed, however, is often so very slight, that it may be thought to require very little, if any medical treatment, and may be easily cured without physic, by abstaining from flesh, eggs, broth, and wine; from all food that is sharp, fat, and heavy; and by dieting upon bread, fruit, and water; particularly by eating little or no supper; and drinking, if thirsty, a simple drink of barley, or an infusion of elder-flowers, with the addition of a third or fourth part of milk. Bathing the feet is also desirable.

When the fever, heat, and inflammation wholly disappear; when the patient has kept to his regimen for some days, and his blood is well diluted, if the cough and want of sleep still continue, he may take in the evening a dose of storax pill, or of Venice treacle with elder-flower tea, after bathing his feet. These remedies, by stilling the cough and restoring perspiration, frequently cure the cold in the space of one night. We confess at the same time, we have seen bad consequences from such opiates, when given too early in the complaint. It is also necessary, when they are given, that the patient should have supped but very moderately, and that his supper should be digested.

An immense number of remedies are used for the cure of colds; such as drinks made of apples or pippins, of liquorice, of dry raisins, of figs, of borage, of ground ivy, of veronica or speedwell, of hysop, of nettles, &c. We have no design to depreciate them, as all of them may possibly be useful; but unfortunately, those who have seen any particular one of them succeed in one case, readily conclude it to be the most excellent of them all; which is a dangerous error, because no one case is a sufficient foundation to decide upon: neither indeed are any qualified to decide, who have not seen a great number of such cases, and who do not attentively observe the effects of different medicines, as to determine on those which most frequently agree with the disorder.

In colds of the head or brain, the steam of warm water alone, or that in which elder-flowers, or some other mild aromatic herbs have been boiled, commonly affords a speedy relief. These are also serviceable in colds of the breast.

It has been a practice, though of no very long standing, to give the fat of a whale in these cases; but this is a very crude indigestible kind of fat; and greasy oily medicines seldom agree with colds. Besides this, whale's fat is very disagreeable and rancid; so that it were better to forbear using it: ill effects have often ensued from it, and rarely any good ones.

Such persons as abate nothing of the usual quantity of their food, when seized with a cold, and who swallow large quantities of hot water, ruin their health. Their digestion ceases, and the cough begins to affect the stomach, without ceasing to afflict the breast.

Burnt brandy and spiced wine are very pernicious in the beginning of colds, and the omission of them must be very prudent. If any good effects have ever been known to attend the use of them, it has been towards the going off of the cold; when the disorder maintained its ground solely from the weakness of the patient. Whenever this is the case, there is not the least room for further relaxation.

Drams and cordials agree so very little in this last state, that frequently a very small quantity of them revives a cold that was just expiring. There are some persons who never drink them without taking cold; which is not to be wondered at, as they occasion a slight inflammation in the breast, which is equivalent to a cold or defluxion.

Persons labouring under this disorder should not, however, expose themselves to violent cold weather if there is a possibility of avoiding it, though they should equally guard against excessive heat. Those who

inclose themselves in very hot rooms, never get quite cured; and how is it possible they should get cured in such a situation? Such rooms, abstracted from the danger of coming out of them, produce colds in the same manner that drams do, by producing a slight inflammation of the breast.

Persons subject to colds, imagine they ought to keep themselves very hot. This is an error which thoroughly destroys their health. Such a disposition to take cold arises from two causes: either because their perspiration is easily impaired; or sometimes from the weakness of the stomach or the lungs, which require particular remedies. When the complaint arises from the perspiration's being easily disturbed and lessened, the hotter they keep themselves, the more they perspire, and increase their complaint the more. This continued warm air lets down and weakens the whole machine, and more particularly the lungs; where the humours finding less resistance, are continually derived, and are accumulated there. The skin being constantly bathed in a slight perspiration, becomes relaxed, soft, and incapable of completing its functions; from which failure the slightest cause produces a total obstruction of perspiration; and a multitude of languid disorders ensue.

These patients thus circumstanced, redouble their precautions against the cold, or even the coolness of the air, while their utmost cautions are but so many effectual means to lower their health; and this the more certainly, as their dread of the free air necessarily subjects them to a sedentary life, which increases all their symptoms; while the hot drinks they indulge in, complete their severity. There is but one method to cure people thus situated; that is, by accustoming them gradually to the air; to keep out of hot chambers; to lessen their clothing by degrees; to make them sleep cool; and let them eat or drink nothing but what is cold, ice itself being wholesome in their drink; to make them use much exercise; and finally, if the disorder be inveterate, to give them for a considerable time a decoction of bark, and make them use the cold bath. This method succeeds equally, too, with those in whom the disease originally depended on a weakness of the stomach or of the lungs: and in fact, at the end of a certain period, these three causes are always combined. Some persons who have been subject for many years to catch colds throughout the winter, and who during that season never went out, and drank every thing warm, have been evidently the better during the cold winters.

It is more customary indeed in town than in the country to have different sorts of lozenges and compositions in the mouth. We are not for excluding this habit; though we think nothing is so effieacious as juice of liquorice; and provided a sufficient quantity be given, it affords certain relief.

EFFECTUAL CURE FOR PIMPLES ON THE FACE.

COSMETICS are generally directed to the surface of the skin, without any reference to the internal system; though it is daily evident, that however powerful their effects are for a time, these can only be temporary: their application too must be renewed almost as often as washing, at the risk sometimes of doing great injury to the constitution.

Since the nature of cutaneous diseases has been properly understood, all judicious practitioners have agreed that since they depend on the state of the digestive and other internal organs, the only effectual remedies are those which strike the disorder at the root. For this purpose the following has been tried with much success on the Continent, and we feel assurance in recommending the same to our fair readers; particularly those who have been in the habit of using cosmetic creams and lotions.

Mix one drachm of tincture of cardamoms, fifteen drops of ipeca-

cuhana wine, and as much flower of sulphur as will lie on a shilling, with a glass of any weak wine—as ginger or elder wine.

Take this on going to rest; repeat it every second or third night, and pay attention to the state of the bowels.

QUESTIONS

NECESSARY TO BE ANSWERED BY PATIENTS WHO CONSULT A PHYSICIAN.

THE following Questions are more particularly directed to those who consult physicians by letter; and may serve as a guide to those of our readers who wish for our advice.

GENERAL QUESTIONS.

What is the patient's age?

Is he generally a healthy person?

What is his general course of life?

How long has he been sick?

In what manner did his present sickness begin or appear?

Has he any fever?

Is his pulse hard, or soft?

Has he still tolerable strength, or is he weak?

Does he keep his bed in the daytime, or does he quit it?

Is he in the same condition throughout the whole day?

Is he still, or restless?

Is he hot, or cold?

Has he pains in the head, the throat, the breast, the stomach, the belly, the loins, the limbs, or in the extremities of the body?

Is his tongue dry? does he complain of thirst? of an ill taste in his mouth? has he retchings to vomit, or an aversion to food?

Does he go to stool often, or seldom?

What appearance have they, and what is their usual quantity?

Does he make much urine? What appearance has it, as to colour, consistency, and sediment? Are they generally much alike, or do they change often?

Does he perspire?

Does he expectorate, or cough up?

Does he get sleep?

Does he draw his breath easily?

What regimen does he observe in his sickness?

What medicines has he taken?

What effects have they produced?

Has he ever had the same complaint before?

The diseases of women and children are attended with peculiar circumstances; so that when advice is asked for them, answers must be given, not only to the preceding questions, which relate to sick persons in general; but also to the following, which regard these particularly.

QUESTIONS WITH RESPECT TO WOMEN.

Have they arrived at their monthly indispositions, and are these regular?

Are they pregnant? If so, how long since?

Are they in child-bed?

Has their delivery been happily accomplished?

Has the bowels been relieved sufficiently?

Has her milk come in due time and quantity?

Does she suckle the infant herself?

Is she subject to the fluor albus?

QUESTIONS RELATING TO CHILDREN.

What is the child's exact age?

How many teeth has he cut?

Does he cut them painfully?

Is he anywise ricketty, or subject to knots or kernels?

Has he had the small-pox, and what else?

Does the child void worms, upwards or downwards?

Is his belly large, swelled, or hard?

Is his sleep quiet, or otherwise?

Besides these general questions, common in all the diseases of the different sexes and ages, the person consulting must also answer to those, which have a close and direct relation to the disease, at that very time affecting the sick person.

For example, in the quinsey, the condition of the throat must be exactly inquired into. In diseases of the breast, an account must be given of the patient's pains; of his cough; of the oppression, and of his breathing, and expectoration. We shall not enter upon a more particular detail; common sense will sufficiently extend this plan or specimen to other diseases; and though these questions may seem numerous, it will always be easy to write down their answers in as little room, as the questions take up here. It were even to be wished that persons of every rank, who occasionally write for medical advice and directions, would observe such a plan or succession, in the body of their letters. By this means they would frequently procure the most satisfactory answers; and save themselves the trouble of writing second letters, to give a necessary explanation to the first.

The success of remedies depends, in a very great measure, on a most exact knowledge of the disease; and that knowledge on the precise information respecting it, which is laid before the physician.

THE TOILETTE OF FLORA.

NO. II.

TOOTH POWDER TO CURE A BAD BREATH.

TAKE of cream of tartar and chalk, each, half an ounce,
Of myrrh, powdered, a drachm,
Of orris-root, powdered, half a drachm,
Of powdered bark, two drachms;
Mix all together, and rub down the mass well in a mortar.

A WASH TO BE USED TO THE ARMPITS WHEN THE PERSPIRATION IS UNPLEASANT.

Take of pure spring water as cold as can be got, two pints,
Of tincture of myrrh, an ounce,
Of sulphate of zinc, half an ounce,
Of rose water, two ounces;
Mix all together, and sponge the armpits occasionally with it.

MIXTURE TO MODERATE PERSPIRATION.

Take of spring water, four ounces,
Of diluted sulphuric acid, forty drops,
Of compound spirits of lavender, two drachms;
Mix.—A table-spoonful twice a day; keeping the bowels regular by rhubarb.

WASH TO WHITEN THE NAILS.

Take of diluted sulphuric acid, two drachms,
Of pump water, four ounces,
Of tincture of myrrh, a drachm;
Mix.—First wash with white soap, and then dip the fingers into this wash.

A MEDICINE TO DESTROY BLACK WORMS IN THE FACE.

Take bay-salt, dry it well by the fire, or in an oven, until it become white; of it take a spoonful; mint-water, a quarter of a pint; boil them together well, and anoint the face with it.

A GOOD POULTICE FOR ANY CONTUSION ABOUT THE EYE.

Take the white of an egg, beat it, and then take green rue, stripped and beaten like a conserve; mix them together, and apply it on flax.

TO IMPROVE THE VOICE.

Add twenty drops of the oil of sweet almonds to half a glass of port wine.

TO PURIFY AND PRESERVE WATER.

WATER is often the vehicle of the seeds of disease; and therefore the purification of it should be a matter of the first consideration when it is suspected that it contains any thing foul and injurious. Many medical writers have turned their attention to this important point; but one of the most concise and pithy is Mr. Forsyth, author of the Medical Dictation, from which we extract the following observations.

"Pure water, properly so called, when deprived of all heterogeneous parts, is not subject to become putrid; but it is very difficult to keep it long in a pure state on account of its dissolving powers. To preserve water for any length of time in that state, it would be necessary to keep it in a vessel of glass or of earthenware; but the brittleness of these vessels renders it impossible to make use of very large ones, and we are obliged to have recourse to wooden vessels, which, though they are not subject to be broken like the others, have the great disadvantage of imparting to the water a great quantity of mucilaginous and extractive particles, which hasten its putrefaction. It is well known that these particles, in a state of division, furnish an innumerable quantity of living creatures, the almost perpetual destruction and regeneration of which communicate to the water that degree of corruption and putrefaction which renders its use so dangerous; it is not therefore from the water itself, but the continual decomposition of the substances dissolved in it, that its disposition to putrefaction arises.

"From what has been said, then, it evidently appears that the first means of preserving from putrefaction, water which we are obliged to keep in wooden casks, consists in having these reservoirs perfectly clean. The smallest quantity of matter already corrupted being left in them acts as a real ferment, and very quickly disposes the fresh water, with which these vessels are filled, to become putrid in the same manner. For this reason it is advised* that the casks or other vessels be well washed with hot water and sand, or with any other substance capable of removing the mucilaginous particles; and afterwards, that a certain quantity of powder of charcoal be employed, which will entirely deprive such casks or other vessels of the musty or putrid smell they may have contracted.

"When water is preserved by having certain substances mixed with it, these substances act, either by their anti-putrescent powers, or by mechanically absorbing the putrified particles.—Vitriolic acid possesses the first of these properties; and powdered charcoal fulfils the second intention in a very striking manner; and the effect of the latter is rendered much more speedy by using it along with the former.

DIRECTIONS FOR PURIFYING ANY GIVEN QUANTITY OF CORRUPTED WATER.—SPRING WATERS, &c.

"When it is intended to purify any given quantity of corrupted water, we should begin by adding to it as much powder of charcoal as is necessary to deprive it entirely of its bad smell; and in order to ascertain whether the quantity added be sufficient to clarify the said water, a small quantity of it may be passed through a linen bag, two or three inches long; if the water thus filtered has still a turbid appearance, a fresh quantity of powdered charcoal must be added until it becomes perfectly clear: the whole of the water may thus be passed through a filtering-bag, the size of which should be proportioned to the quantity of water. If vitriolic or any other acid can be procured, a small quantity of it should be added to the water, before the charcoal powder is used; the quantity of acid being regulated in proportion to the state of putridity in which the water is found; and which should be added in quantity sufficient to communicate to the water a degree of acidity just perceptible to the taste.

"If the water be merely intended for dressing meat and vegetables, instead of acid, such a quantity of sea salt as would have been proper for seasoning the above articles, may be employed. Saline substances, like acids, hasten the effects of the charcoal powder; by making use of acids, (as has already been observed,) a much less quantity of powdered charcoal is necessary; and so easy is the process to any one accustomed to operations of this kind, that four or

* See Mr. Lowitz's Memoir, read at the Economical Society, at St. Petersburgh.

five minutes only are required to render several gallons of putrid water fit to drink. In like manner, to improve the taste of those spring waters which naturally have an hepatic flavour, and are therefore unpleasant to use, nothing more is necessary than to filter them through a bag half filled with powdered charcoal; if such waters are not very much loaded with mucilaginous particles, the addition of an acid is not necessary."

A SIMPLE AND EFFICACIOUS MODE OF CURING SORE EYES.

By Sore Eyes we here only mean inflammation of the membrane which covers the ball, technically known by the term Ophthalmia. This disease may be either quickly removed or confirmed by the treatment adopted. When the following simple plan is followed, every success may be expected; but if violent means, such as strong styptics and eye-waters be applied, it is a thousand chances to one, that the disease becomes confirmed.

First, then, on the appearance of the redness, pain, &c. let the patient take a dose of the following mixture, until the bowels be well purged:

COOLING MIXTURE FOR SORE EYES.

Take of senna tea, half a pint;
Of Mindererus spirit, two dr.
Of nitre, five grains;
Of Epsom salts, half an ounce;
Mix.—One-third of this is a dose.

Secondly, when this has produced its effect, let a small blister be applied at the external angle of the eye.

Thirdly, let a drop of the following lotion be put into the eye three times a day:

LOTION FOR THE EYES.

Take of sulphate of zinc, ten grains;
Of tincture of opium, a drachm;
Of cold water, four ounces;
Mix.

If this simple plan will not suffice, (and it seldom fails, unless additional cold be caught,) let the cooling mixture and the lotion be repeated.

DOMESTIC TREATMENT IN THE COMMENCEMENT OF DISEASE, AND DIET IN ACUTE DISEASES.

There are no more important points in the domestic treatment of disease, than the management of the first stage of it: and the diet in all those attended with fever. So much is in the power of those who attend on the sick, independent of the physician, that they ought to feel the responsibility placed upon their conduct, and know well the line they are to go by. We will, therefore, point out the actual method they may pursue, without any risk, on the invasion of some acute diseases, and the general diet which agrees with them all.

The greater part of acute diseases frequently give notice of their approach a few weeks, and generally some days before their actual invasion; such as a slight lassitude or weariness, stiffness or numbness; less activity than usual, less appetite, and heaviness at the stomach; some complaint in the head; a profounder degree of sleep, yet less composed and less refreshing than usual; less gaiety and liveliness; sometimes a slight oppression of the breast; a less regular pulse; a propensity to be cold; an aptness to perspire; and sometimes a suppression of a former disposition to perspire. At such a time it may be practicable to prevent, or at least considerably to mitigate, the most perplexing disorders, by carefully observing the four following points.

1. To omit all violent work or labour, but yet not so as to discontinue a gentle easy degree of exercise.

2. To bring the patient to content himself without any or with very little solid food; and especially to renounce all flesh, flesh-broths, eggs, and wine.

3. To drink plentifully, that is to

say, at least three pints, or even four pints daily, by small glasses at a time, from half hour to half hour, of barley water, tea, or whey, and to take a little cream of tartar. No person can be destitute of this very attainable assistance. A light infusion of elder-flowers, or of those of the linden or lime-tree, may also be advantageously used.

4. Let the person affected with such previous complaints, receive clysters of warm water. By pursuing these precautions some grievous disorders have often been happily rooted out; and although they should not prove so thoroughly efficacious as to prevent their appearance, they may at least be rendered more gentle, and much less dangerous.

Very unhappily people have taken the directly contrary method. From the moment these previous, these forerunning complaints are perceived, they allow themselves to eat nothing but gross meat, eggs, or strong meat-soups. They leave off garden-stuff and fruits, which would be so proper for them; and they drink heartily (under a notion of strengthening the stomach and expelling wind) of wine and other liquors, which strengthen nothing but the fever, and expel what degree of health might still remain. Hence all the evacuations are restrained; the humours causing and nourishing the diseases are not at all attempered, diluted, nor rendered proper for evacuation. Nay, on the very contrary, they become more sharp and more difficult to be discharged: while a sufficient quantity of diluting refreshing liquid assuages and separates all matters foreign to the blood, which it purifies; and at the expiration of some days, all that was noxious in it, is carried off by stool, by urine, or by perspiration.

When the disease is further advanced, and the patient is already seized with that coldness or shuddering, in a greater or less degree, which ushers in all diseases, and which is commonly attended with an universal oppression, and pains over all the surface of the body, the patient thus circumstanced should be put to bed, if he cannot keep up; or should sit down as quietly as possible, with a little more covering than usual: he should take every quarter of an hour a small glass of the following

DRINK IN APPROACHING FEVER.

Take of barley water, a quart,
Add the juice of two lemons, a little honey, and a drachm of nitre, in powder.

These patients earnestly desire a load of covering during the cold or shivering; but we should be very careful to lighten them as soon as it abates; so that when the succeeding heat begins, they may have no more than their usual covering. It were to be wished, perhaps, they had rather less. Such people generally lie upon a feather-bed, and under a coverlet or quilt, that is commonly extremely heavy; and the heat which is heightened and retained by feathers, is particularly troublesome to persons in a fever. Nevertheless, as it is what they are accustomed to, this custom may be complied with for one season of the year; but during our heats, or whenever the fever is very violent, they should lie on a pallet (which will be infinitely better for them) and should throw off their heavy bed-clothes, so as to remain covered only with sheets or a light blanket. It is scarcely to be believed how much comfort a patient is sensible of, in being eased of his former coverings. The disease immediately puts on a different appearance.

As soon as the heat after the rigor or coldness, or shuddering, approaches, and the fever is manifestly advanced, we should provide for the patient's regimen; and

1. Care should be taken that the air in the room where he lies, should not be too hot, the mildest degree of warmth being quite sufficient; that there be as little noise as possible, and that no person speak to the sick without a necessity for it. No external circumstance heightens the fever more, nor inclines the patient to a delirium or raving, more than the noise of persons in the chamber, and especi-

ally about the bed. They lessen the spring, the elastic and refreshing power of the air; they prevent a succession of fresh air; and the variety of objects occupies the brain too much. Whenever the patient has been at stool or has made urine, these excrements should be removed immediately. The windows should certainly be opened night and morning, at least for a quarter of an hour each time; when, also, a door should be opened, to promote an entire renovation or change of the air in the room. Nevertheless, as the patient should not be exposed at any time to a stream or current of air, the curtains of his bed should be drawn on such occasions; and if he lays without any, chairs with blankets or cloths hung upon them, should be substituted in the place of curtains, and surround the bed while the windows continue open, in order to defend the patient from the force of a rushing air. If the season, however, be rigidly cold, it will be sufficient to keep the windows open but for a few minutes each time. In summer, at least one window should be set open day and night. The pouring a little vinegar upon a red-hot shovel also greatly conduces to restore the spring and to correct the putridity of the air. In our greatest heats, when that in the room seems nearly scorching, and the sick person is sensibly and greatly incommoded by it, the floor may be sprinkled now and then; and branches of willow or ash-trees, dipped a little in water, may be placed about the room.

With respect to the patient's nourishment, he must entirely abstain from all solid food; but he may always be allowed, and have daily prepared, the following sustenance, which is one of the wholesomest, and indisputably the simplest one:—Take half a pound of bread, a morsel of fresh butter about the size of a hazel nut, (which may even be omitted too,) three pints and one quarter of a pint of water. Boil them until the bread be entirely reduced to a due consistence. Then strain it, and give the patient one-eighth part of it every three or four hours; but still more rarely, if the fever be vehemently high. Those who have groats, barley, oatmeal, or rice, may boil and prepare them in the same manner, with some grains of salt.

The sick may also be sometimes indulged, in lieu of these different spoon-meats, with raw fruits in summer, or in winter with apples baked or boiled, or plums and cherries dried and boiled. Persons of knowledge and experience will be very little, or rather not all, surprised to see various kinds of fruit directed in acute diseases; the benefit of which they may have frequently seen.—Such advice can only disgust those who remain still obstinately attached to old prejudices. But could they prevail on themselves to reflect a little, they must perceive that those fruits which allay thirst; which cool and abate the fever; which correct and attemper the putrid and heated bile; which gently dispose the bowels to be rather open; and promote the secretion and discharge of the urine; must prove the most proper nourishment for persons in acute fevers. Hence we see, as it were, by a strong admonition from Nature herself, that they express an ardent longing for them; and I have known several who would not have recovered but for their eating secretly large quantities of those fruits which they so passionately desired and were refused. Many, however, who are not convinced by our reasoning in this respect, may at least make a trial of our advice, on our affirmation and experience; when we have no doubt but their own will convince them of the real benefit received from this sort of nourishment. It will then be evident that we may safely and boldly allow, in all continual fevers, cherries red and black, strawberries, the best cured raisins, raspberries, and mulberries; provided that all of them be perfectly ripe. Apples, pears, and plums, are less melting and diluting, less succulent, and of course not so proper. Some kinds of pears however are extremely juicy, and even watery, such as the dean or Valentia pear, different kinds of the

Buree pear, the St. Germain, the Virgoleuse, the green sugary pear, and the summer royal, which may all be allowed, as well as a little juice of very ripe plums, with the addition of water to it. This last we have known to assuage thirst in a fever, beyond any other liquor. Care should be taken at the same time that the sick should never be indulged in a great quantity of any of them at once, which would overload the stomach, and be injurious to them; but if they be given a little at a time and often, nothing can be more salutary. China oranges, and lemons, may be also used successfully; but without eating any of their peel, which is hot and inflaming.

3. Their drink should be such as allays thirst and abates the fever; such as dilutes, relaxes, and promotes the evacuations by stool, urine, and perspiration. A glass or a glass and a half of the juice of such fruit as we have already mentioned may also be added to three pints of water.

The sick should drink at least twice or thrice that quantity daily, often and a little at once, between three and four ounces every quarter of an hour. The coldness of the drink should be taken off.

4. If the patient have not two motions in the twenty-four hours; if the urine be small in quantity and high coloured; if he rave, the fever rage, the pain of the head and loins be considerable, with a pain in the stomach, and a propensity to vomit, a clyster of half a pint of warm water, with a little oil and Epsom salt should be given at least once a day. The people have generally an aversion to this kind of remedy; notwithstanding there is not any more useful in feverish disorders, especially in those we have just recounted; and one clyster commonly gives more relief than if the patient had drank four or five times the quantity of his drinks. It may be observed that they are never to be given at the very time the patient is in a perspiration which seems to relieve him.

5. As long as the patient have sufficient strength for it, he should sit up out of bed one hour daily, and longer if he can bear it; but at least half an hour. It has a tendency to lessen the fever, the head-ache, and a light-headiness or raving. But he should not be raised while he be perspiring; though such perspirations seldom occur but at the conclusion of diseases, and after the sick has had several other evacuations.

6. The patient's bed should be made daily while he sits up; and the sheets of the bed, as well as the patient's linen should be changed every two days, if it can be done with safety. An unhappy prejudice has established a contrary and a really dangerous practice. The people about the patient dread the very thought of his rising out of bed; they let him continue there in filthy linen laden with putrid steams and humours; which contribute not only to keep up the disease, but even to heighten it to some degree of malignity.—Nothing conduces more to continue the fever and raving than confining the sick constantly to bed, and withholding him from changing his foul linen: by relieving him from both of which circumstances, we may, without the assistance of any other remedy, put a stop to a continual delirium. It is usually said the patient is too weak, but this is a very *weak* reason. He must be in very nearly a dying condition, not to be able to bear these small commotions, which in the very moment when he permits them, increase his strength, and immediately after abate his complaints. One advantage the sick gain by sitting up a little out of bed, is the increased quantity of their urine, with greater facility in passing it. Some have been observed to make none at all, if they did not rise out of bed.

A very considerable number of acute diseases have been radically and effectually cured by this method, which mitigates them all. Where it is not used, as an assistance at least, medicines are very often of no advantage. It were to be wished the patient and his friends were made to understand that diseases are not to be expelled at once with rough and violent treat-

ment; that they must have their certain career or course; and that the use of the violent methods and medicines they choose to employ, might indeed abridge the course of them, by killing the patient, yet never otherwise shortened the disease; but on the contrary, rendered it more perplexing, tedious, and obstinate; and often entailed such unhappy consequences on the sufferer, as left him feeble and languid for the rest of his life.

But it is not sufficient to treat, and as it were, to conduct the disease properly. The term of recovery from a disease requires considerable vigilance and attention, as it is always a state of feebleness, and thence of depression and faintness. The same kind of prejudice which destroys the sick, by compelling them to eat during the violence of the disease, is also extended in the stage of convalescence or recovery; and either renders it troublesome and tedious, or produces fatal relapses, and often chronical distempers. In proportion to the abatement, and in the decline of the fever, the quantity of nourishment may be gradually increased; but as long as there are any remains of it, their qualities should be those we have already recommended. Whenever the fever is completely terminated, some different foods may be entered upon; so that the patient may venture upon a little white meat provided it be tender; some fish;* a little flesh-soup, a few eggs at times, with wine properly diluted. It must be observed at the same time, that these very proper aliments, which restore the strength when taken moderately, delay the perfect cure if they exceed in quantity, though but a little; because the action of the stomach being extremely weakened by the disease and the remedies, is capable only as yet of a small degree of digestion; and if the quantity of its contents exceed its powers, they do not digest, but become putrid: frequent returns of the fever supervene; a continual faintness; head-aches; a heavy drowsiness, without a power of sleeping comfortably; flying pains and heats in the arms and legs; inquietude; peevishness; propensity to vomit; looseness; obstructions; and sometimes a slow fever, with a collection of humours that come to suppuration.

All these bad consequences are prevented by the recovering sick contenting themselves for some time with a very moderate share of proper food. We are not nourished in proportion to the quantity we swallow, but to that we digest. A person recovering from any complaint, who eats moderately, digests it and grows strong from it. He who swallows abundantly, does not digest it, and instead of being nourished and strengthened, he withers insensibly away.

We may reduce within the few following rules, all that is most especially to be observed, in order to procure a complete, a perfect termination of acute diseases; and to prevent their leaving behind them any impediments to health.

1. Let those who are recovering, as well as those who are actually sick, take very little nourishment at a time, and take it often.

2. Let them take but one sort of food at each meal, and not change their food too often.

3. Let them chew whatever solid victuals they eat, very carefully.

4. Let them diminish their quantity of drink. The best for them in general is toast and water, with a fourth or third part of white wine. Too great a quantity of liquids at this time prevents the stomach from recovering its tone and strength; it impairs digestion; keeps up weakness; increases the tendency to a swelling of the legs; sometimes even occasions

* The most allowable of these are whitings, flounders, plaice, dabbs, smelts, or gudgeons; especially such of the last as are taken out of clear current streams with gravelly bottoms. Salmon, eels, carp, all the skate kind, haddock, and the like, should not be permitted, before the sick return to their usual diet when in health. It is best to begin with fish boiled.

a slow fever; and throws back the person recovering into a languid state.

5. Let them go abroad as often as they able, whether on foot, in a carriage, or on horseback. This last exercise is the healthiest of all, and the people in this country, who have it in their power to procure it without expence, are in the wrong to neglect it. They who would practise it should mount before their principal meal, which should be about noon, and never ride after it. Exercise taken before a meal strengthens the organs of digestion, which is promoted by it. If the exercise be taken soon after the meal, it impairs it.

6. As people in this state are seldom quite as well towards night, in the evening they should take very little food. Their sleep will be the less disturbed for this, and repair them the more and sooner.

7. They should not remain in bed above seven or eight hours.

8. The swelling of the legs and ancles, which happens to most persons at this time, is not dangerous, and generally disappears of itself, if they live soberly and regularly and take moderate exercise.

9. It is not necessary in this state that they should go every day to stool; though they should not be without one above two or three. If their costiveness exceed this term, they should take a little rhubarb and magnesia the third day, and even sooner if they are heated by it, if they feel puffed up, are restless, and have any pains in the head.

10. Should they after some time still continue very weak; if their stomachs be disordered; if they have from time to time a little irregular fever, they should take two doses daily of the following prescription:

STRENGTHENING MIXTURE.

Take of decoction of bark, a pint;
Of tincture of bark, an ounce;
Of cream of tartar, two ounces:
Mix.—A table-spoonful is a dose.

This fortifies the digestions, recovers the strength, and drives away the fever.

11. They must not by any means return to their labour or business too soon. This erroneous habit daily prevents many people from ever getting perfectly well, and recovering their former strength. From not having been able to confine themselves to repose and indolence for some days, they never become so hearty and hardy as they had been; and they lose in consequence every following week of their lives, more time than they ever gained by their over-early resuming of their accustomed business. A repose of seven or eight days more than they allowed themselves would have prevented all these infirmities; notwithstanding, it is very difficult to make them sensible of this.

MAXIMS TO BE OBSERVED FOR THE PROLONGATION OF LIFE.

It is not good to eat too much, nor too fast, nor too long, nor to do any thing else that is preternatural.

Whoever eats or drinks too much will be sick.

The distemper of repletion is cured by abstinence.

Old men can fast easily; men of ripe age can fast almost as much; but young persons and children, that are brisk and lively, can hardly fast at all.

Growing persons have a great deal of natural heat, which requires a great deal of nourishment, else the body will pine away. But old men, who have but a little natural heat, require but a little food, and too much overcharges them.

It must be examined, what sort of persons ought to feed once or twice a day, more or less, allowance being always made to the age of the persons, to the season of the year, the place where one lives, and to custom.

The more you feed foul bodies, the more you hurt yourselves.

Early rising, air, and exercise, conduce essentially to the preservation of life.

FULL DOSES OF THE MEDICINES IN ORDINARY USE.

Of Epsom salts, an ounce.
Glauber salts, two ounces.
Rochelle salts, two ounces.
Rhubarb, twenty grains.
Jalap, thirty grains.
Gamboge, five grains.
Calomel, five grains—as a purge.
——— two grains—as an alterative.
Scammony, fifteen grains.
Senna, in powder, two scruples.
Aloes, fifteen grains.
Opium, two grains.
Assafœtida, ten grains.
Blue pill, ten grains.
Compound extract of colocynth, ten grains.
Ipecacuanha, twenty-five grains—as an emetic.
——— two grains—as a corrector in fevers, &c.
Compound ipecacuanha, powder, twelve grains. (This is Dover's powder.)
Castor oil, six drachms.
Tincture of opium, (laudanum,) thirty drops.
Tincture of senna, half an ounce.
Tincture of rhubarb, three drachms.
Tincture of jalap, half an ounce.
Bark, in substance, a drachm.
—— in decoction, two tablespoonsful
Squill pill, five grains.
Squill tincture, a drachm.
Cream of tartar, two drachms—as a purge.
——— fifteen grains—as a diuretic.
Sulphur, one drachm.
Nitre, twenty grains.
Tartarite of antimony, three grains—as an emetic.
——— half a grain, as a sudorific.
Antimonial wine, a drachm.
Antimonial powder, five grains.
James's powder, five grains.
Guaiacum, ten grains.

Of course, it will be understood that in administering these medicines, less or more may be given according to circumstances.

USEFUL PRESCRIPTIONS.

MR. ABERNETHY'S PILLS FOR BILIOUS COMPLAINTS.

Take of blue pill, half a drachm;
Of extract of jalap, a scruple;
Of rhubarb, ten grains;
Mix and make into twelve pills: one or two a dose occasionally.

SYRUP FOR GRIPING IN INFANTS.

Take of syrup of rhubarb and saffron, each, half an ounce;
Of syrup of buckthorn, a drachm.
Mix, and give a tea-spoonful every three hours until free motions take place.

REMARKS ON PERSPIRATION.

Of all the powers or faculties of animal life, one of the most remarkable is that which balances and regulates the heat of its own system: and this power is inherent in itself. The heat of the central parts of the body, under the frigid zone, or the fervid heats of a tropical region, never exceeds a certain standard in

"The fierce extremes of either zone,
"Where polar skies congeal th' eternal snow,
"Or equinoctial suns for ever glow."

This is the point (98°) at which the elaboration of fluids and the different functions of the body can be best performed.

The power which maintains this balance of temperature, is PERSPIRATION. This was not thoroughly established or understood until Dr. Cullen made his observations on cold, as produced in the evaporation of liquids.* Dr. Franklin referred the refrigeration by perspiration to a similar process. He noticed in the summer of 1750, when the heat in Philadelphia was 100° in the shade,

* Water in a phial may be frozen by repeatedly bathing its sides with æther, and allowing it to evaporate freely.

that his skin remained cooler than the air, or inanimate bodies, when without exercise or exposure the perspiration ran from the back of his hands, and, notwithstanding he was only covered with light linen clothing, he was obliged to exchange it for dry several times in the day. This coolness of the body when exposed to such heat, he justly referred to perspiration as a cause.* The quantity lost in this way has been variously stated. Sanctorious was supposed to have exaggerated the amount, but it is certain that it is ordinarily some pounds in a day, and is augmented by exercise, certain conditions of the the air, and by other excitements.

The transpiration of fluids through the pores of the skin, serves very beneficial purposes in the animal economy. It equalizes the heat, as we have before mentioned, and it softens the skin by its unctuosity. This very circumstance, however, renders washing necessary, because of the accumulation of impure matter on the skin, when the perspiration is long retained on the surface. In hot countries it has been proved, that those who perspire most copiously and easily, are least obnoxious to those endemical and ravaging disorders with which some of those regions are visited.† But the retention and accretion of this fluid on the skin, either by wearing flannel, or from any other cause, is the readiest means of obstructing and lessening this healthful transudation. Frequent ablution and washing, or bathing in this point of view, has long been customary among those inhabitants of our climate who value their health, or wish to protect themselves from a fruitful source of impurity.

The power of the body to sustain great degrees of heat under particular circumstances, has been well illustrated by the philosophical researches of Dr. Fordyce, Sir Charles Blagden, and others, who have investigated this curious and important subject with great precision and ability.—These experiments proved, that persons might remain a considerable time, with but trifling inconvenience, in a room heated by stoves, more than 250°;—a temperature far above that of boiling water. Meat was roasted on metal plates heated only by the air of the room; but such was the copiousness of the perspiratory discharge from their persons, that a balance of the animal heat was preserved thereby in the system.

It is probable that the evaporation of perspiration is a considerable, but not the only cause of this beneficial and salutary effect. The ingenious Dr. Currie, in his elegant and classical work, supposes, with much probability, that there is an absorption of heat in the formation of the matter of perspiration; or (in the language of chemistry) that much free caloric enters into a latent state by the fluid exhaled possessing a greater capacity for heat, than that from which it was extracted.—Certain it is, that the animal system possesses various resources for controlling the accumulation of heat, which would prove destructive if it were not balanced as quickly as it is set at liberty. The theory of the Boerhaavian school, that the blood would coagulate if the heat applied to the body exceeded 100°, is by the foregoing proof entirely overthrown. A curious fact should also be noticed respecting the above experiment, viz. that the persons concerned could return from the heated room into the cold air, and even remain some minutes without dressing, with perfect impunity.

* Doctor Franklin's Philosophical works.

† Dr. Jackson's Essay on the use of cold water in fever.

THE SMALL-POX.

THE small-pox is the most frequent, the most extensive of all diseases; since out of a hundred persons there are not more than a dozen exempted from it. It is equally true, however, that if it attack almost every persons, it attacks them but once; so that having escaped through it, they are

always secure from it.* It must be acknowledged, at the same time, to be one of the most destructive diseases; for if in some years or seasons, it proves to be of a very mild and gentle sort, in others it is almost as fatal as the plague: it being demonstrated, by calculating the consequences of its most raging and its gentlest prevalence, that it kills one-seventh of the number it attacks.

People generally take the small-pox in their infancy, or in their childhood. It is very seldom known to attack only one person in one place; its invasions being very generally epidemical, and seizing a large proportion of those who have not suffered it. It commonly ceases at the end of some weeks or some months, and rarely ever appears again in the same place, until four, five, or six years after.

This malady often gives some intimation of its approach, three or four days before the appearance of the fever, by a little dejection; by less vivacity and gaiety than usual; a great propensity to perspire; less appetite; a slight alteration of the countenance, and a kind of pale livid colour about the eyes: notwithstanding which, in children of a lax and phlegmatic constitution, we have known a moderate agitation of their blood, (before their shivering approach,) give them a vivacity, gaiety, and a rosy improvement of their complexion, beyond what nature had given them.†

Certain short vicissitudes of heat or coldness succeed the former introductory appearances, and at length a considerable shivering, of the duration of one, two, three, or four hours: this is succeeded by violent heat, accompanied with pains of the head, loins, vomiting, or at least with a frequent propensity to vomit.

This state continues for some hours, at the expiration of which the fever abates a little in a perspiration, which is sometimes a very large one; the patient then finds himself better, but is notwithstanding cast down, torpid or heavy, very squeamish, with a head-ache and pain in the back, and a disposition to be drowsy. The last symptom indeed is not very common, except in children less than seven or eight years of age.

The abatement of the fever is of small duration; and some hours after' commonly towards the evening, it returns with all its attendants, and terminates again by perspirations, as before.

This state of the disease lasts three or four days; at the end of which time and seldom later, the first eruptions appear among the perspiration, which terminates the paroxysm or return of the fever. We have generally observed the earliest eruption to appear in the face, next to that on the hands, on the fore part of the arms, on the neck, and on the upper part of the breast. As soon as the eruption appears, if the distemper be of a gentle kind and disposition, the fever almost entirely vanishes: the patient continues to perspire a little, or transpire; the number of eruptions increases, others coming out on the back, sides, belly, thighs, legs, and feet. Sometimes they are pushed out very numerously even to the soles of the feet; where, as they increase in size, they often excite very sharp pain, occasioned by the great thickness and hardness of the skin in these parts.

Frequently on the first and second day of eruption (speaking hitherto always of the mild kind and degree of the disease) there returns again a very gentle revival of the fever towards the evening, which about the termination of it, is attended with a considerable and final eruption: tho'

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* It has sometimes been observed, (and the observation has been such, as not to be doubted,) that a very mild distinct small-pox has sometimes invaded the same person twice: but such instances are so very rare, that we may very generally affirm, those who have had it, will never have it again.

† The same appearances very often occur in such subjects by inoculation, before actual sickening, as we have observed and instanced.

as often as the fever terminates perfectly after the earliest eruption, a very distinct and very small one is a pretty certain consequence. For though the eruption is already, or should prove only moderate, the fever, as we have before said, does not totally disappear; a small degree of it still remaining, and heightening a little every evening.

These pustules, or efflorescences, on their first appearances, are only so many very little red spots, considerably resembling a flea-bite; but distinguishable by a small white point in the centre, a little raised above the rest, which gradually increases in size, with the redness extended about it. They become whiter in proportion as they grow larger; and generally upon the sixth day, including that of their first eruption, they attain their utmost magnitude, and are full of pus or matter. Some of them grow to the size of a pea, and some still a little larger; but this never happens to the greatest number of them. From this time they begin to look yellowish, they gradually become dry, and fall off in brown scales, in ten or eleven days from their first appearance. As their eruption occurred on different days, they also wither and fall off successively. The face is sometimes clear of them, while pustules still are seen upon the legs, not fully ripe or suppurated; and those in the soles of the feet often remain much longer.

The skin is of course extended or stretched out by the pustules: and after the appearance of a certain quantity, all the interstices, or parts between the pustules, are red and bright, as it were, with a proportionable inflation or swelling of the skin. The face is the first part that appears bloated, from the pustules there first attaining their utmost size: and this inflation is sometimes so considerable, as to look monstrous; the like happens also to the neck, and the eyes are entirely closed up by it. The swelling of the face abates in proportion to the drying up of the pustules; and then the hands are puffed up prodigiously. This happens successively to the legs, the tumour or swelling being the consequence of the pustules attaining their utmost size, which happens by succession, in these different parts.

Whenever there is a very considerable eruption, the fever is heightened at the time of suppuration, which is not to be wondered at; one single boil excites a fever: how is it possible then that some hundreds, nay some thousands, of these little abscesses should not excite one? This fever is the most dangerous period or time of the disease, and occurs between the ninth and thirteenth days; as many circumstances vary the term of suppuration two or three days. At this painful and perilous season, then, the patient becomes very hot and thirsty; he is harassed with pain; and finds it very difficult to discover a favourable easy posture. If the malady run very high, he has no sleep; he raves, becomes greatly oppressed, is seized with a heavy drowsiness; and when he dies, he dies either suffocated or lethargic, and sometimes in a state compounded of both these symptoms.

The pulse, during this fever of suppuration, is sometimes of an astonishing quickness, while the swelling of the wrists makes it seem, in some subjects, to be very small. The most critical and dangerous time is, when the swellings of the face, head, and neck are in their highest degree.—Whenever the swelling begins to fall, the scabs on the face to dry, (supposing neither of these to be too sudden and premature for the visible quantity of the pustules,) and the skin to shrivel, as it were, the quickness of the pulse abates a little, and the danger diminishes. When the pustules are very few, this second fever is so moderate, that it requires some attention to discern it, so that the danger is next to none.

Besides these symptoms, there are some others which require considerable attention and vigilance. One of these is the soreness of the throat, with which many persons in the small-pox are afflicted as soon as the fever grows strong. It continues for

two or three days; feels very strait and troublesome in the action of swallowing; and whenever the disease is extremely acute, it entirely prevents swallowing. It is commonly ascribed to the eruption of pustules in the throat; but this is a mistake, such pustules being almost constantly imaginary. It begins most frequently before the eruption appears; if this complaint is in a light degree, it terminates upon the eruption; and whenever it revives again in the course of the disease, it is always in proportion to the degree of the fever. Hence we may infer it does not arise from the pustules, but is owing to the inflammation; and as often as it is of any considerable duration, it is almost ever attended with another symptom, the salivation or a discharge of a great quantity of spittle. This salivation rarely exists, where the disease is very gentle, or the patient very young; and is full as rarely absent, where it is severe and the patient is past seven or eight years old: but when the eruption is very confluent, and the patient adult or grown up, the discharge is surprising. Under these circumstances it flows out incessantly, allowing the afflicted patient no rest or respite, often incommoding him more than any other symptom in the distemper; and so much the more, as after its continuance for some days, the lips, the inside of the cheeks, the tongue, and the roof of the mouth, are entirely peeled or flayed, as it were.—Nevertheless, however painful and embarrassing this discharge may prove, it is very important and salutary. Mere infants are less subject to it, some of them having a looseness in lieu of it; and yet we have observed even this last discharge to be considerably less frequent in them, than a salivation is in grown persons.

Children, to the age of five or six years, are liable to convulsions before eruption: these, however, are not dangerous, if they are not accompanied with other grievous and violent symptoms. But such convulsions as supervene, either when eruption, having already occurred, suddenly retreats or strikes in, according to the common phrase; or during the course of the fever of suppuration, are greatly more terrifying.

Involuntary discharges of blood from the nose often occur in the first stages of this distemper, which are extremely serviceable, and commonly lessen or carry off the head-ache. Mere infants are less subject to this discharge; though they have sometimes a little of it: and we have known a considerable stupor or drowsiness vanish immediately after this bleeding.

OF THE DIFFERENT KINDS OF SMALL-POX.

The small-pox is commonly distinguished into two kinds, the confluent and the distinct; such a distinction really existing in nature: but as the treatment of each of them is the same, and as the quantity of medicine is only to be varied in proportion to the danger of the patient, (not to enter here into very tedious details, and such as perhaps might only confuse many of our readers, as well as whatever relates particularly to the malignant small-pox,) we shall limit ourselves within the description we have premised, which includes all the symptoms common to both these kinds of the small-pox. We content ourselves with adding here, that we may expect a very confluent and dangerous sort, if, at the very time of seizure, the patient is immediately attacked with many violent symptoms; more especially if his eyes be extremely quick, lively, and even glistening as it were; if he vomit almost continually; if the pain of his loins be violent; and if he suffer at the same time great anguish and inquietude. If, in infants, there be great stupor or heaviness; if eruption appears on the third day, and sometimes even on the second,—as the hastier eruptions in this disease signify the most dangerous degree of of it; and, on the contrary, the slower the eruption is, it is the safer too;—supposing this slowness of the eruption not to have been the conse-

quence of great weakness, or of some violent inward pain.

The disorder is sometimes so very mild and slight, that eruption comes on with scarcely any suspicion of the child's having the least ailment; and the event is as favourable as the invasion. The pustules appear, grow large, suppurate, and attain their maturity, without confining the patient to his bed, or lessening either his sleep or appetite.

It is very common to see children in the country (and they are seldom more than children who have it so very gently) run about in the open air, through the whole course of this disease, and feeding just as they do in health. Even those who take it in a somewhat higher degree, commonly go out when the eruption is finished, and give themselves up without reserve to the voracity of their hunger. Notwithstanding all this neglect, many get perfectly cured, though such conduct should never be proposed for imitation, since numbers have experienced its pernicious consequences; and several of these children have been brought to us, who, after such neglect, in the course of the mild and kindly sort of this disease, have contracted complaints and infirmities of different kinds, which have been found very difficult to subdue.

This still continues to be one of those diseases, whose danger has long been increased by its improper treatment, and especially by forcing the patients into perspirations; and it still continues to be increased, particularly among country people. They have seen eruption appear while the patient sweats, and observed he found himself better after its appearance; and hence they conclude, that by quickening and forcing out this eruption, they contributed to his relief, and imagine that by increasing the quantity of his sweats, and the number of his eruptions, the blood is the better cleared and purified from the poison. These are mortal errors, which daily experience has demonstrated by their tragical consequences.

When the contagion or poison, which generates this disease, has been admitted into the blood, it requires a certain time to produce its usual effects; at which time the blood being tainted by the venom it has received, and by that which such venom has formed or assimilated from it, nature makes an effort to free herself from it, and expel it by the skin, precisely at the time when every thing is predisposed for that purpose. This effort pretty generally succeeds, very often rather too rapid and violent, and very seldom too weak.—Hence it is evident, that whenever this effort is deficient, it ought not to be heightened by hot medicines or means, which make it too violent and dangerous; for when it already exceeds in this respect, a further increase of such violence must render it mortal.

There are but few cases in which the efforts of nature, on this occasion, are too languid and feeble, especially in the country; and whenever such cases do occur, it is very difficult to form a just and proper estimation of them; for which reason we should be very cautious in the use of heating medicines, which are so pernicious in this disease.

Wine, cordials, Venice treacle, hot air, and loads of bed-clothes, annually sweep off thousands of children, who might have recovered if they had taken nothing but warm water; and every person who is interested in the recovery of patients in this disease, ought carefully to prevent the smallest use of such drugs, which, if they do not immediately aggravate it to a fatal degree, yet will certainly increase the severity and torment of it, and annex to it the most unfortunate consequences.

The prejudice on this point is so strongly rooted, that a total eradication of it must be very difficult; but let persons be convinced by their own eyes of the different success of the hot regimen, and of that which we shall propose.

TREATMENT OF SMALL-POX.

At the very beginning of the disease, (which may be reasonably suspected

from the presence of the symptoms we have already described, supposing the person complaining never to have had it, and the disease to prevail near his residence,) the patient is immediately to be put on a strict regimen, and to have his legs bathed night and morning in warm water. This is the most likely method to lessen the quantity of eruption in the face and head, and to facilitate it every where else on the surface. Clysters also greatly contribute to abate the head-ache, and to diminish the retching to vomit, and the actual vomitings, which greatly distress the patient, but which, however, it is highly absurd and pernicious to stop by any stomachic cordials or Venice treacle; and still more dangerous to attempt to remove the cause of them by an emetic or purge, which are hurtful in the beginning of the small-pox.

If the fever be moderate, the bathings of the legs on the first day of sickening and one clyster may suffice then. The patient must be restrained to his regimen, and a very young child should drink nothing but milk, diluted with two-thirds of elder-flower or lime-tree tea, or with balm tea, if there be no perceptible fever; and in short, if they have an aversion to the taste of them all, with only the same quantity of good clear water.* An apple coddled or baked may be added to it, and if they complain of hunger, a little bread may be allowed; but they must be denied any meat or meat broth, eggs, and strong drink, since it is proved by observations frequently repeated, that children who had been indulged in such diet, have been the worse for it, and recovered more slowly than others. In this early stage, too, clear whey alone may serve them instead of every other drink, or some butter-milk may be allowed. When the disorder is of a mild species, a perfect cure ensues without any other assistance or medicine, but we should not neglect to purge the patient as soon as the pustules are perfectly scabbed on the greater part of the face, with the following:

Take of manna, two ounces;
Of Epsom salts, two ounces;
Dissolve both in four ounces of boiling water.—Two table spoonfuls every three hours; and this must be repeated six days after.

He should not be allowed flesh till after this second purge, though after the first he may be allowed some well boiled garden stuff and bread, and in such quantities as not to be pinched with hunger, while he recovers from the disease.

But if the fever should be strong, the pulse hard, and the pain of the head and loins should be violent, he must,

1st. Immediately lose blood in the arm, and receive a clyster two hours after; and, if the fever continue, the bleeding must be repeated, and it is more especially necessary in such persons as, with a hard and full pulse, are also affected with a heavy drowsiness and delirium.

2. As long as the fever continues violently, two, three, and even four clysters should be given in the twenty-four hours, and the legs should be bathed twice a day.

3. The patient is to be taken out of bed, and supported in a chair, as long as he can tolerably bear it.

4. The air of his chamber should frequently be renewed.

5. He is to be restrained to whey or cream of tartar water.

After the eruption, the fever being then abated, there is less occasion

* A negro girl, about five or six years old, under a coherent pock, stole by night out of the garret where she lay, into a kitchen out of doors, where she drank plentifully of cold water. How often she repeated these nightly cooling potions, is not known, but it is certain the child recovered as speedily as others, whose eruption was more distinct, and who drank barley water, very thin rice or Indian corn gruel, balm tea, or the like.

for medicine; and should it even entirely disappear, the patient may be regulated as directed above.

When after an intermission of some days, the process of suppuration revives the fever, we ought first, and especially, to keep the body very open by the above-mentioned purgative.

The patient should be taken out of bed, and kept up in a room well aired day and night, until the fever has abated. Many persons will probably be surprised at this advice; nevertheless it is that which we have often experienced to be the most efficacious, and without which the others are ineffectual. They will say, how can the patient sleep at this rate? To which it may be answered, Sleep is not necessary; nay, it is hurtful in this stage of the disease. Besides, he is really unable to sleep; the continual salivation prevents it, and it is very necessary to keep up the salivation, which is facilitated by often injecting warm water and honey into his throat. It is also of considerable service to throw some up his nostrils, which often thus cleanses the scabs which form within them. A due regard to these circumstances not only contributes to lessen the patient's uneasiness, but very effectually also to his cure.

If the face and neck are greatly swelled, emollient cataplasms ought to be applied to the soles of his feet; and if these should have very little effect, plaisters composed of yeast, flour of mustard, and vinegar, should be applied. They sometimes occasion sharp and almost burning pain; but in proportion to the sharpness and increase of these pains, the head and neck are remarkably relieved.

The eyelids are puffed up and swelled when the disease runs high, so as to conceal the eyes, which are closed up fast for several days. Nothing further should be attempted with respect to this circumstance, but the frequent moistening of them with a little warm milk and water. The precautions which some take to stroke them with saffron, a gold ducat, or rose-water, are equally childish and insignificant. What chiefly conduces to prevent the redness or inflammation of the eyes after the disease, and in general all its other bad consequences, is to be content for a considerable time with a very moderate quantity of food, and particularly to abstain from flesh and wine. In the very bad small-pox, and in little children, the eyes are closed up from the beginning of the eruption.

One extremely serviceable assistance, and which has not been made use of for a long time past, except as a means to preserve the smoothness and beauty of the face, but yet which has the greatest tendency to preserve life itself, is the opening of the pustules, not only upon the face, but all over the body. In the first place, by opening them, the lodgement or retention of pus is prevented, which may be supposed to prevent any erosion or eating down from it; whence scars, deep pits, and other deformities are obviated. Secondly, in giving vent to the poison, the retreat of it into the blood is cut off, which removes a principal cause of the danger of the small-pox. Thirdly, the skin is relaxed; the tumour of the face and neck diminish in proportion to that relaxation; and thence the return of the blood from the brain is facilitated, which must prove a great advantage. The pustules should be opened every where, successively as they ripen. The precise time of doing it is when they are entirely white; when they begin to turn but a very little yellowish; and when the red circle surrounding them is quite pale. They should be opened with very fine sharp-pointed scissars; this does not give the patient the least pain; and when a certain number of them are opened, a sponge dipped in a little warm water is to be repeatedly applied to suck up and remove that pus, which would soon be dried up into scabs. But as the pustules, when emptied thus, soon fill again, a discharge of this fresh matter must be obtained in the same manner some hours after; and this must sometimes be repeated five or even six times successively. Such

extraordinary attention in this point may probably be considered as minute, and even trivial by some, and is very unlikely to become a general practice, but we do again affirm it to be of much more importance than many may imagine; and that as often as the fever attending suppuration is violent and menacing, a very general, exact, and repeated opening, emptying, and absorbing of the ripened pustules, is a remedy of the utmost importance and efficacy; as it removes two very considerable causes of the danger of this disease, which are the matter itself, and the great tension and stiffness of the skin.

In the treatment of this disease, we have said nothing with respect to anodynes, or such medicines as procure sleep, which are generally employed in it; but which we scarcely ever direct in this violent degree of the disease. For which reason, wherever the patient is not under the care and direction of a physician, they should very carefully abstain from the use of Venice treacle, laudanum, diacodium, that is the syrup of white poppies, or even of the wild red poppy; syrup of amber, pills of storax, of cynoglossum or hounds-tongue, and in one word, of every medicine which produces sleep. But still more especially should their use be entirely banished throughout the duration of the secondary fever, when even natural sleep itself is dangerous. One circumstance in which their use may sometimes be permitted, is in the case of weakly children, or such as are liable to convulsions, where eruption is effected not without difficulty. But we must again inculcate the greatest circumspection, in the use of such medicines, whose effects are fatal, when the blood-vessels are turgid or full; whenever there is inflammation, fever, a great distension of the skin; whenever the patient raves, or complains of heaviness and oppression; and when it is necessary that the bowels should be open; the urine plentifully discharged; and the salivation be freely promoted.

If eruption should suddenly retreat, or strike in, heating, soporific, spirituous, and volatile remedies should carefully be avoided: but the patient may drink plentifully of elder-flower tea with honey, pretty hot, and should be blistered on the fleshy part of the legs. This is a very embarrassing and difficult case, and the different circumstances attending it may require different means and applications, the detail and discussion of which are beyond our plan here. Sometimes a single bleeding has effectually recalled eruption at once.

The only certain method of surmounting all the danger of this malady, is to vaccinate, and we earnestly recommend mothers to lose no time in giving their children this benefit. The cow-pox is now too well known to admit of a doubt upon its efficacy.

PRECAUTIONS WHERE INOCULATION IS USED, OR WHERE CONTAGION IS PREVALENT.

It is evident, that since the defects of health are very different in different bodies, the preparations of them must often vary; and that a child subject to some habitual disorder, cannot be prepared in the same method with another who has a very opposite one. The detail and distinctions which are necessary on this important head, would be improper here, whether it might be owing to their unavoidable length; or to the impossibility of giving persons, who are not physicians, sufficient knowledge and information, to qualify them for determining on and prefering the most proper preparation in various cases. Nevertheless, we shall point out some such as may be very likely to agree, generally, with strong and healthy children.

The first step then is an abatement of their usual quantity of food. Children commonly eat too much. Their limitation should be in proportion to their size and growth, wherever we can exactly ascertain them; but with regard to all, or to much the greater number of them, we may be allowed to make their supper very light, and very small.

Their second advantage will consist in the choice of their food.—This circumstance is less within the attainment of, and indeed less necessary for the common people, who are of course limited to a very few, than to the rich, who have room to make great retrenchments on this account. The diet of country people being of the simplest kind, and almost solely consisting of vegetables and milk-meats, is the most proper diet towards preparing for this disease. For this reason, such persons have little more to attend to in this respect, but that such aliments be sound and good in their kind; that their bread be well baked; that their fruit should be well ripened; that their children should have no cakes or tarts, and but little cheese. These simple regulations may be sufficient with regard to this article of their preparation.

Some judgment may be formed of the good consequences of their care in these two points, concerning the quantity and quality of the children's diet, by the moderate shrinking of their stomachs; as they will be rendered more lively and active by this alteration in their living; and yet, notwithstanding a little less ruddiness in their complexion, and some abatement of their common state of body, their countenances, upon the whole, will seem improved.

The third article we would recommend, is to bathe their legs now and then in warm water, before they go to bed. This promotes perspiration, cools and dilutes the blood, and allays the sharpness of it, as often as it is properly timed.

The fourth precaution, is the frequent use of very clear whey; which consists of the juices of herbs filtered through, and concocted, as it were, sweetened by the organs of a healthy animal, answers every visible indication: (we are still speaking here of sound and hearty children.) It imparts a flexibility or suppleness to the vessels; it abates the density, the heavy consistence and thickness of the blood; which being augmented by the action of the poisonous cause of the small-pox, would degenerate into a most dangerous inflammatory viscidity or thickness. It removes all obstructions in the viscera or bowels of the lower cavity, the belly. It opens the passages which strain off the bile; sheaths or blunts its sharpness, gives it a proper fluidity, prevents its putridity, and sweetens whatever excessive acrimony may reside throughout the mass of humours. It likewise promotes stools, urine, and perspiration; and in a word, it communicates the most favourable disposition to the body, not to be too violently impressed and agitated by the operation of an inflammatory poison: and with regard to such children as we have mentioned, for those who are either sanguine or bilious, it is beyond all contradiction, the most effectual preparatory drink.

We have already observed, that it may also be used to great advantage, during the course of the disease; but we must further observe, that however salutary it is, in the cases for which we have directed it, there are many others in which it would be hurtful. It would be extremely pernicious to order it to weak, languishing, schirrous, pale children, subject to vomitings, purgings, acidities, and to all diseases which prove their bowels to be weak and their humours to be sharp; so that people must be very cautious not to regard it as an infallible remedy, towards preparing for the small-pox. Those to whom it is advised, may take a few glasses every morning, and even drink it daily for their common drink; they may also sup it with bread for breakfast, for supper, and indeed at any time.

If people will pursue these directions (which are very easy to observe and to comprehend) whenever the small-pox rages, we are persuaded it must lessen the mortality attending it. Some will certainly experience the benefit of them; such we mean as are sensible and discreet, and strongly influenced by the truest love of their children. Others there are, also, who are too stupid to discern the ad-

vantages of them, and too unnatural to take any care of their families.

ADULTERATION OF FLOUR.

A CORN-FACTOR was summoned by a baker to appear before the Lord Mayor, at the Mansion-House, to answer for having sold five sacks of some injurious compound as wheaten flour. When the baker applied for the summons, he stated that he believed the stuff he had purchased as household flour was a mixture of plaister of Paris, beans, and a very small quantity of wheat; and that it was impossible he could sell it to his customers. He had, he said, sent a sample of it to a gentleman at Apothecaries' Hall for analyzation, and found that it was composed of materials which were very unfit for the use of man.—The factor, attended by his solicitor, appeared to answer the charge.

The Lord Mayor having learned that Mr. Clarke, the operator at Apothecaries' Hall, who had analyzed the article in question, was in attendance, asked that gentleman what sort of materials he had found it composed of.

Mr. Clarke replied, that he had ascertained that there was no plaister of Paris or bones, as was apprehended by the baker, in the article. He had however found that there was very little wheat, and that there was a great deal of beans and other things in it, which although not destructive to health, were exceedingly stimulating, and unfit for use in bread. He regretted that the most injurious ingredients have frequently been used in making bread. Mr. Clarke mentioned that adulteration in flour is carried to a shameful height. He had been engaged incessantly, from the 4th of September till the 28th of February, by the direction of the Lords of the Admiralty, in analyzing 1,467 sacks of flour, which were lying in warehouses at Hull, and such pernicious stuff he had never seen in the whole course of his experience. (He has been twenty-two years in Apothecaries' Hall.) He had taken a sample from each sack, and in some he had found that upwards of a third was plaister of Paris and ground bones, two of the most abominable ingredients, and which the stomach neither of man nor beast is capable of digesting. He had sent samples of this compound, which had indeed a very trifling portion of flour in it, to the Lords of the Admiralty, baked, and in several of its processes, and never was seen any thing more frightful. It was, as a loaf, almost as black as jet, and to be cut in pieces would require a hatchet. It was of course condemned, and the person who owned it, and who was about to send it to Spain or Portugal, was fined in the penalty of 10,000*l.* He said a mixture of flour was generally thrown in, but the ground bones and plaister of Paris were exceedingly deceptious to the eye, although instantly detected by the chemist, as they would immediately effervesce upon the application of vinegar, or other acid, and affect the nose most powerfully.

The Lord Mayor was of opinion that the exposure of the abominable system of adulteration would produce much benefit to the public, and thanked Mr. Clarke for the very useful information he had communicated.

Mr. Clarke said he had to state to his Lordship what would no doubt surprise him much, and would be of no little interest, as his Lordship was a large tea dealer. He had lately analyzed some caper souchong tea, and found that there was 25 per cent. of lead ore in it!

There are some inaccuracies in the above report, arising from the tone of voice in which the observations were made. As the subject is one of vital importance, we hasten to correct the errors, as well as to add some further information which Mr. Clarke has given.

The flour-factor whose adulterated article was seized at Hull, had previously a quantity of wheat in bond; and was permitted to take it out and grind it, on condition of returning

196lbs. of genuine wheaten flour for every five bushels of corn. Instead of substituting the pure article, however, he sent in a most abominable adulteration of beans, buck-wheat, and flour of the very coarsest description. This compound was not under the king's locks two days, when it was suspected to be bad, and no time was lost in sending samples to the Commissioners of the Customs of London.

Mr. Clarke was then sent by the Lords of the Treasury to Hull to analyze the compound, and he found it to consist of the above mentioned ingredients. He had upon several former occasions found in baker's flour an immense quantity of plaister of Paris, burnt bones, and an earthy substance, technically called Derbyshire white, of the most destructive nature, but prepared for the sole use of bakers, confectioners, and pastry-cooks. The colour of all those dreadful ingredients is beautiful. It resembles that of the very finest flour; and the article is impossible to be detected in its unmade-up state without a chemical process. But the compound he had examined at Hull, it was erroneous to say contained plaister of Paris or bones. The stuff was condemned, and the penalty of 10,000*l.* affixed; so that the loss sustained by the owner must have been from 13,000*l.* to 14,000*l.*

The Lord Mayor said the public seemed to labour under a delusion in supposing that alum was the ingredient to be much apprehended in bread.

Mr. Clarke said alum was not at all injurious in the quantities in which it is used by the bakers. They well knew that they mixed up other things more destructive, and those who considered it a high crime for a baker to have a pound of alum on his premises, overlooked the sacks of abomination, which the alum in fact was rather calculated to render less noxious.

In the course of the conversation it was stated that flour merchants were in the habit, it was believed, of substituting the adulterated flour, in order to defraud Government, and of throwing it, when it was too bad for sale, into the sea. In most instances, it was however admitted, that they disposed of it on the Continent, where it was sure to generate destructive complaints.

We have learned from Mr. Clarke, that confectioners use an enormous quantity of Derbyshire white, burnt bones, and other calcareous matter, and with complete impunity too, as they are a sort of *ad libitum* dealers, and can venture, by catching the eye with beautiful colours, and the palate with sweet tastes, to adulterate infinitely more than the baker can.

A poor woman who keeps a baker's shop in the Borough, called upon Mr. Clarke, upon seeing the account of what took place at the Mansion-House, with samples of flour, which she said she had bought at 68*s.* the sack, a price at which the best flour can be obtained. She complained that in the baking it turned almost black, and that she had lost twenty-two customers by it. She was refused redress, and was unable to pay for the flour on account of the badness of it. Upon examination, Mr. Clarke found that the article was horribly adulterated; and he advised the poor woman not only not to pay a farthing for the stuff, but to make a complaint before a magistrate in the Borough, who would no donbt redress her.

Mr. Clarke says, the public ought to be most particularly on their guard in the use of confectionary; as some confectioners use not only what we have stated above, but the following poisons, in great abundance:—chromate of lead, copper, verdigris, iron, rose-pink, vermillion, and powder blue. He informs us that the adulteration by beans and peas may be detected by mixing a little of the article to be put to the test, with water and a small quantity of ammonia. The beans will turn brown and the peas yellow, while the flour mixed with these ingredients remains white. But ammonia will not detect adulteration by burnt bones, or plaister of Paris, or Derbyshire white, or calcareous substances. A small quantity of di-

luted sulphuric acid (oil of vitriol) will discover adulterations of all those kinds, with the exception of that by plaister of Paris. Alum, he says, is used by bakers only when the yeast is very bad; and as it is used in very small quantities, merely one pound to eight bushels of flour, it can do no harm. If the informer would seize the flour instead of the alum, he would do a real public service.

DEATH BY IMPROPER SURGICAL TREATMENT AND NEGLECT.

An important enquiry took place on the 24th of July, before the Coroner for Middlesex, concerning the death of John Hammond, who died in St. George's Hospital. The deceased was servant to Mr. Bailey, of Old Brentford; a fine healthy man, only twenty-one years of age.

On the 15th of June he fell upon some rubbish, and the side of his right knee was cut with a broken glass bottle. He was conveyed to St. George's Hospital, and then the wound was dressed by Mr. Pitman, the House-Surgeon, and a bandage was put round his knee. It is supposed that some particles of broken glass were left in the wound.

Mr. Pitman stated, that an artery was cut, and he took it up previous to his putting on the bandage, and that he applied leeches to the knee; but upon a strict examination, he admitted that he had made a mistake, for no leeches had been applied. By other evidence it appeared that on the day the young man entered the hospital, he complained of most excruciating pain in his knee, arising from inflammation. The bandage was very tight, and the flesh on either side much swollen. Notwithstanding his complaint, the bandage was not removed till seven days had elapsed, and then it was done at his very urgent request. The moment the bandage was removed, he stated that he experienced immediate relief. It was then found that though the external wound had healed, matter had formed underneath; a suppuration took place, and in a short time the discharge was so great as to reduce his system, and to make his case hopeless. It also appeared that there was a want of attention on the part of the nurses of the hospital, excepting a night nurse, who was very kind to the deceased; that his face was not washed, nor his linen nor bedclothes changed, during the six weeks that he lay ill! It further appeared that a short time before he died, an old man had died in the next bed, and that as soon as the corpse was carried away, the young man was removed to the same bed, and placad between the same sheets; in which he also expired.

One of the witnesses said that the deceased complained of want of food: that he had nothing to eat on one particular day, from nine o'clock in the morning till four o'clock in the afternoon; and owing to his not being cleaned, he was so offensive that the witness could not remain in the place.

Mr. Jeffreys, surgeon, whose duty it was to attend the deceased, said he saw the young man on the day after he entered the hospital. His knee was then bandaged; he did not then examine the wound; he saw it was properly bandaged; he saw the knee on the third day following.

Juror.—The bandage was on the knee from the time the deceased entered the hospital till the fourth day following; and I ask you, if in your opinion, that was not improper treatment?

Mr. Pitman.—No: that is my mode of treatment.

Juror.—That may be your mode; but the question is, was that a proper mode of treatment?

Mr. Pitman.—I say it was a proper mode of treatment, and the bandaging the leg did not produce the swelling and pain.

Juror.—It appears that the deceased complained of great pain on the day after the bandage was put round his knee; in your opinion, ought not the bandage to have been taken off, and

leeches, or a lotion, or a fomentation have been applied?

Mr. Jeffreys.—The wound, and not the bandage caused the swelling.

Juror.—I am of opinion, that owing to the surgeon's neglecting this young man, and not taking off the bandage in proper time, the wound healed up, and produced that mischief which terminated in his death.

Coroner.—You must form your opinion from the evidence of the medical gentlemen. Did the bandaging the knee cause the death of the deceased?

Witness.—It did not, in any way, produce that event.

Juror.—Suppose there were bits of glass remaining in the wound, ought it not have been kept open, and not bandaged up for four or five days and nights without any one examining it? I am of opinion, that when this unfortunate young man complained day after day of pain, which was caused by inflammation, that some medical man belonging to the establishment ought to have given himself the trouble to have examined the wound. I think there was gross neglect manifested by the surgeons of the hospital.

Mr. Bailey, (the master of the deceased,) said that he was disgusted with the treatment that his servant and other patients received in the hospital. He understood the regulations at other public hospitals were very different.

The Coroner observed, that he had heard so before, and was sorry for it, because he knew the Directors of the Institution would not permit it, if they were acquainted with it.

Juror.—Then such mismanagement and improper surgical treatment ought to be made public.

After some further discussion, the Jury returned the following verdict:—*The deceased received a cut in the knee by an accident; and from the effects of improper surgical treatment and neglect, his death was produced.*

DISEASES OF ARTIZANS.

NO. 3.

OF THE DISEASES OF THOSE WHO WORK UPON MINUTE THINGS, WHICH STRAIN THE EYES.

THERE are some tradesmen employed in finer and smaller sorts of workmanship, such as goldsmiths, watchmakers, those who paint upon jewels, and writers, such as he who wrote Homer's Iliads in the compass of a nutshell, as Tully informs us.—The misfortune entailed upon those men from their business, exclusive of the inconveniences of a sedentary life, is that common disease of the eyes called *Myopia*, in which the objects are not seen unless they be placed near the eye; and accordingly we see most of these tradesmen use spectacles at their work. Wedelius makes mention of these sort of tradesmen in a particular manner, and says they are weak-sighted, because it is usual for the parts which are most exercised to be most weakened. But we may draw a better reason for this weakness of the eyes, from the principles of the optics.

We were always of opinion, that nothing can illustrate the manner of vision, but a dark room, in which the images of external things are represented upon a white linen cloth; for if we place a convex glass in the hole of a dark room, the nearer the object approaches the hole, the farther must the cloth be removed from the aperture, to make a distinct representation of the object: and, on the other hand, the farther the visible object is removed, the nearer must the cloth be brought to the hole, otherwise the representation will be confused; for the distinct images of things are drawn, as it were, with a pencil only in the point where the rays join. Hence it appears, that the eye, which is of a finer and more admirable structure, cannot distinctly see objects at a distance, and near at hand, unless it be moveable, and apt to change its figure.

Common experience teaches us, that, when we view objects at a dis-

tance, and do not perceive them clearly, because the rays, entering the eye almost parallel, meet too soon behind the pupil, we can, by straitening and contracting the eyes by the means of the muscles and the eye-lids, so alter the figure of the eyes, as to have a clear and distinct perception of the objects, which otherwise we saw but confusedly.

Now those who work all day long upon very fine and small work, cannot have a distinct view of the minute objects before them, without keeping their eyes very steady and intent, and fixed with a tonical sort of motion, or a motion always directed to one point; and consequently, tho' their eyes are naturally moveable, (that being a necessary quality for perceiving objects at a distance, as well as near at hand,) yet by keeping the eye constantly in this one position, they contract such a habit, that the retina, being inured and accustomed to one form and figure, persists in it, and cannot be moved at pleasure for the perception of remoter objects: and it is for this reason that such artizans are almost all of them troubled with a myopia.

Add to this, that while the eyes are kept immoveable, and perpetually fixed upon one point, the humours grow thick, and lose their transparency along with their fluidity, which gradually makes way for a weakness of the sight; so that though such persons may naturally have clear-sighted eyes, they become short-sighted in course of time.

So great is the calamity entailed upon this sort of work, and the finest pieces of workmanship, (such as clocks and watches,) are so apt to produce this weakness of the eyes, that many of the workmen are almost blind before they arrive at old age; and many printers have complained that they have given a considerable shock to their eye-sight, by composing small types.

We do not see how we can afford any relief to the workmen we now treat of, for it is not easy to persuade them to leave a beneficial and lucrative trade; and physic is unprovided with any remedy which can restore the primitive strength and mobility of the eyes, after the disorder is become inveterate; for neither purging nor bleeding nor the other medicinal means can take place in this case. If the patients are otherwise well and brisk, and their spirits good and light, it would be improper to punish an innocent and sound head with the commotions of medicines.

However, we would advise such workmen not only to use spectacles, but to intermit from their work now and then, and refresh their eyes with a diversity of objects; for they cannot imagine how much the mobility of the membranes of the eyes, and the native fluidity of the humours, are kept up by viewing different objects; some near at hand, some remote, some directly, others obliquely, and in fine all manner of ways; because by this means, the natural disposition of the eye is preserved, so that the ball is sometimes furled or contracted, and sometimes dilated; and the crystalline humour approaches more or less to the pupil, according as the remoteness or nearness of the object requires. Without this diversity of action, the eyes undergo the same fate with the other parts, which by being long detained in one position, grow stiff and unfit for motion. Of this we have a manifest instance in those who, upon coming out of dark dungeons, where they have been long kept, are forced to accustom their eyes gradually to the light, because the pupil or ball of the eye having been long dilated, and its elastic spring weakened, it forgets, in a manner, how to contract itself as it used to do.

However, when the spirits are depressed, and the digestion impaired, the following powders are beneficial:

POWDERS FOR SEDENTARY PEOPLE.

Take of aromatic powder, and
Of rhubarb, ten grains each;
Of cream of tartar, fifteen grains;
Mix.

One of these in a little beer or ale every day at eleven o'clock, will be

found of the greatest benefit.—Country views and country air should be resorted to as often as they can make it convenient.

REAL SOOTHING SYRUP FOR CHILDREN CUTTING THEIR TEETH.

THOUSANDS are annually destroyed by what is called "American Soothing Syrup," which is nothing but an opiate; we, therefore, recommend our readers to be guarded in using such. The following will be found more effectual, and totally unattended with danger to the infant.

Take of syrup of buckthorn, two drachms;
Of syrup of saffron, one drachm;
Of syrup of violets, one drachm;
Of syrup of rhubarb, half an ounce:

Mix.—A tea-spoonful of this compound should be given to the child twice a day, and a little rubbed to the gums.

DIRECTIONS TO MOTHERS TO PRESERVE THEIR GOOD SHAPES.

IT is believed, that having children spoils the shapes of women; it certainly does in those cases where no attention is paid after child-birth; but far more shapes are spoiled by want of due attention to the digestion and mode of living, than by child-bearing. How few maids of forty possess good shapes, yet how many mothers of that age are as well shaped as ever they were in all their previous years! When women pass a certain age, without entering into that much-longed-for state—matrimony, they become bilious, and the viscera often becomes diseased: Nature has not obtained her end, and the whole machine becomes deranged.

Married women have it in their power to retain a handsome shape, (allowing that they possess it,) even though they bear a score of children; but they must not be careless of themselves. They must neither indulge in too liberal eating or drinking; and immediately after child-birth, care must be taken to have a proper bandage applied round the abdomen; and when they get out of bed, a well-made stay should be put on, so as to support the already weakened integuments; nor should the bandage by night, and the stays by day, be abandoned for at least six weeks after lying-in. Married women, during the whole course of their lives, should take care never to suffer from costiveness, but to keep their bowels regular by some simple aperient, which, if done, will go further than anything else in preserving their good shapes and good looks.

Perhaps the following pills will be found the best and safest medicine for the purpose.

PILLS FOR MARRIED LADIES.

Take of rhubarb, a drachm;
Of extract of colocynth, half a drachm;
Of syrup of buckthorn, half a drachm.

Rub all up together, and divide the mass into moderate sized pills; three or four of these pills may be taken occasionally.

DYSENTERY, OR BLOODY-FLUX.

THE Dysentery is a flux or looseness of the belly, attended with great restlessness and anguish, with severe gripings, and frequent propensities to go to stool. There is generally a little blood in the stools, though this is not a constant symptom, and is not essential to the existence of a dysentery; notwithstanding, it may not be much less dangerous for the absence of this symptom.

The dysentery is often epidemical; beginning sometimes at the end of July, though oftener in August, and going off when the frosts set in. The great preceding heats render the blood and the bile acrid and sharp;

and though, during the continuance of the heat, perspiration be kept up, yet as soon as the heat abates, especially in the mornings and evenings, that discharge is diminished; and by how much more the viscidity or thickness the humours have acquired, in consequence of the violent heats, (the discharge of the sharp humours by perspiration being now checked,) it is thrown upon the bowels, which it irritates, producing pains in, and evacuations from them.

This kind of dysentery may happen at all times and in all countries; but if other causes, capable of producing a putridity of the humours, be complicated with it,—such as the crowding up a great number of persons into very little room and very close quarters, as in hospitals, camps, or prisons,—this introduces a malignant principle into the humours, which, co-operating with the simpler cause of the dysentery, renders it the more difficult and dangerous.

This disease begins with a general coldness rather than a shivering, which lasts some hours; the patient's strength soon abates, and he feels sharp pains in the belly, which sometimes continue for several hours, before the flux begins. He is affected with vertigoes or swimmings in the head, with retchings to vomit, and grows pale: his pulse at the same time being very little, if at all, feverish, but commonly small, and at length the purging begins. The first stools are often thin and yellowish; but in a little time they are mixed with a viscid ropy matter, which is often tinged with blood. Their colour and consistence are various too, being either brown, greenish, or black, thinner or thicker, and fœtid. The pains increase before each of the discharges, which grow very frequent, to the number of eight, ten, twelve, or fifteen in an hour; then the fundament becomes considerably irritated, and the tenesmus (which is a great urgency to go to stool, though without any effect) is joined to the dysentery or flux, and often brings on a protrusion or falling down of the fundament, the patient being now most severely afflicted. Worms are sometimes voided, and glairy hairy humours, resembling pieces or peelings of the intestines, and sometimes clots of blood.

If the distemper rise to a violent height, the intestines become inflamed, which terminates either in suppuration or in mortification; the miserable patient discharges pus or black and fœtid watery stools; the hiccup supervenes; he grows delirious; his pulse sinks; and he falls into cold perspirations and fainting, which terminate in death.

A kind of phrenzy, or raging delirium, sometimes comes on before the minute of expiration. We have seen a very unusual symptom accompany this disease in two persons, which was an impossibility of swallowing, for three days before their deaths.

But in general this distemper is not so extremely violent; the discharges are less frequent, being from twenty-five to forty within a day and night. Their contents are less various and uncommon, and mixed with very little blood; the patient retains more strength; the number of stools gradually decreases; the blood disappears; the consistence of the discharges improves; sleep and appetite return; and the sick recover.

Many of the sick have not the least degree of fever, nor of thirst, which, perhaps, is less common in this disease, than in a simple purging or looseness.

Their urine sometimes is but in a small quantity; and many patients have ineffectual endeavours to pass it, to their no small affliction and restlessness.

The most efficacious remedy for this disease is an emetic, (when there is no present circumstance that forbids giving it,) which if taken immediately on the first invasion of it, often removes it at once; and always shortens its duration. If the stools prove less frequent after the operation of it, it is a good sign; if they are no ways diminished, we may apprehend the disease is likely to be tedious and obstinate.

The patient is to be ordered to a regimen, abstaining from all flesh-meat with the strictest attention, until the perfect cure of the disease. Whey is the best drink for him.

The day after the emetic, he must take a full dose of castor oil, or a dose of Epsom salt, (half an ounce:) the next day he should take no other medicine but his whey; on the fourth the salts must be repeated, after which the violence of the disease commonly abates. His diet during disease is, nevertheless, to be continued exactly for some days: after which he may be allowed to enter upon that of persons in a state of recovery.

The dysentery sometimes commences with an inflammatory fever; a feverish, hard, full pulse, with a violent pain in the head, and stiff distended stomach. In such a case the patient must be bled once; and daily receive three or even four clysters of oil and water, drinking plentifully of whey.

When all dread of an inflammation is entirely over, the patient is to be treated in the manner just related; though often there is no necessity for the emetic.

Many dysenteries have been cured by ordering the sick no other remedy, but a cup of warm water every quarter of an hour; and it were better to rely only on this simple remedy, which must be of some utility, than to employ those, of whose effects people are ignorant, and which are often productive of very dangerous ones.

When the disease has already been of many days standing, without the patient's having taken any medicines, or only such as were injurious to him, he must be treated as if the distemper had but just commenced; unless some symptoms, foreign to the nature of the dysentery, have supervened upon it.

Relapses sometimes occur in dysenteries some few days after the patient appeared well; much the greater number of which are occasioned either by some error in diet, by cold air, or by being considerably overheated. They are to be prevented by avoiding these causes of them; and may be removed by putting the patient on his regimen, and giving him one dose of rhubarb and cream of tartar. Should it return even without any such discoverable causes, and if it manifests itself to be the same disease renewed, it must be treated as such.

This disease is sometimes combined, too, with an intermitting fever: in which case the dysentery must be removed first, and the intermittent afterwards.

One pernicious prejudice, which still generally prevails, is, that fruits are noxious in a dysentery, that they even give it and aggravate it; and this, perhaps, is an extremely ill-grounded one. In truth, bad fruits, and such as have not ripened well in unseasonable years, may really occasion cholics, a looseness, (though oftener a costiveness,) and disorders of the nerves, and of the skin; but never can occasion an epidemical dysentery and flux. Ripe fruits, of whatever species, and especially summer fruits, are the real preservatives from this disease. The greatest mischief they can effect, must result from their thinning and washing down the humours, especially the thick glutinous bile, if they are in such a state; good ripe fruits being the true dissolvents of such; in consequence of which, indeed, they may bring on a purging, but such a one, as is rather a guard against a dysentery.

Dr. Tissot makes the following remarks:

"We had a great, an extraordinary abundance of fruit in 1759 and 1760, but scarcely any dysenteries. It has even been observed to be more rare, and less dangerous than formerly; and if the fact is certain, it cannot be attributed to any thing more probably, than to the very numerous plantations of trees, which have rendered fruits very plenty, cheap, and common. Whenever I have observed dysenteries to prevail, I made it a rule to eat less flesh, and plenty of fruit; I have never had the slightest

attack of one; and several physicians use the same caution with the same success.

"I have seen eleven patients in a dysentery in one house, of whom nine were very tractable; they eat fruit and recovered. The grandmother and one child, whom she loved more than the rest, were carried off. She managed the child after her own fashion, with burnt wine, oil, and some spices, but no fruit. She conducted herself in the same manner, and both died.

"In a country seat near Berne, in the year 1751, when these fluxes made great havoc, and people were warned against the use of fruits, out of eleven persons in the family, ten eat plentifully of plums, and not one of them were seized with it: the poor coachman alone rigidly observed that abstinence from fruit enjoined by this prejudice, and took a terrible dysentery.

"This same distemper had nearly destroyed a Swiss regiment in garrison in the South of France: the captains purchased the whole crop of several acres of vineyard; there they carried the sick soldiers, and gathered grapes for such as could not bear being carried into the vineyard; those who were well, eating nothing else: after this not one more died, nor were any more even attacked with the dysentery.

"A clergyman was seized with a dysentery, which was not in the least mitigated by any medicines he had taken. By mere chance he saw some red currants; he longed for them, and eat three pounds of them between seven and nine o'clock in the morning; that very day he became better, and was entirely well on the next.

"I could greatly enlarge the number of such instances; but these may suffice to convince the most incredulous, whom I thought it might be of some importance to convince. Far from forbidding good fruit when dysenteries rage, the patient should be encouraged to eat them freely. It is a fact of which persons who have carefully informed themselves, do not in the least doubt. Experience demonstrates it, and it is founded in reason, as good fruit counter-operates all the causes of dysenteries."

It is important and even necessary that each subject of this disease should have a close-stool or convenience apart to himself, as the matter discharged is extremely infectious: and if they make use of bed-pans, they should be carried immediately out of the chamber, the air of which should be continually renewed, burning vinegar frequently in it.

It is also very necessary to change the patient's linen frequently; without all which precautions the distemper becomes more violent, and attacks others who live in the same house. Hence it is greatly to be wished the people in general were convinced of these truths.

It was Boerhaave's opinion, that all the water that was drank while dysenteries were epidemical, should be stummed, as we term it, or sulphurized.

It has happened by some unaccountable fatality, that there is no disease for which a greater number of remedies are advised than for the dysentery. There is scarcely any person who boasts not of his own prescription in preference to all the rest, and who does not engage to cure, and that within a few hours, a tedious severe disease (of which he has formed no just notion,) with some medicine or composition of whose operation he is totally ignorant: while the poor sufferer, restless and impatient, swallows every body's recommendation, and gets poisoned either through fear, downright disgust or weariness, or through entire complaisance. Of these many boasted compositions, some are only indifferent, but others are pernicious. We shall not pretend to detail all we know ourselves, but after repeatedly affirming that the only true method of cure is that we have advised here, the purpose of which is evacuating the offending matter; we also affirm that all those methods which have a different scope or drift are pernicious; but shall particularly

observe, that the method most generally followed, which is that of stopping the stools by astringents, or by opiates, is the worst of all, and even so mortal a one, as to destroy a multitude of people annually; and which throws others into incurable diseases. By preventing the discharge of these stools, it either follows,

1. That this retained matter irritates and inflames the bowels, from which inflammation excruciating pains arise; an acute inflammatory cholic; and finally mortification and death; or a schirrhus, which degenerates into a cancer; or else an abscess, suppuration, and ulcer. Or

2. This arrested humour is repelled elsewhere, producing a schirrhus in the liver, or asthmas, apoplexy, epilepsy, or falling sickness; horrible rheumatic pains, incurable disorders of the eyes, or of the teguments, the skin, and surface.

Such are the consequences of all the astringent medicines, and of those which are given to procure sleep in this disease; as Venice treacle, mithridate, diascordium, syrup of poppies, and opium, when given too early in dysenteries.

As those who advise such medicines, are certainly unaware of their consequences, we hope this account of them will be sufficient to prevent their repetition.

Neither are purges without their abuse and danger; they determine the course of all the humours more violently to the tender afflicted parts; the body becomes exhausted; the digestions fail; the bowels are weakened, and sometimes even lightly ulcerated; whence incurable diarrhœas or purgings ensue, and prove fatal after many years affliction.

If the evacuations prove excessive, and the distemper tedious, the patient is likely to fall into a dropsy; but if this be immediately opposed, it may be removed by regular and drying diet, by strengtheners, by friction, and proper exercise.

SWELLED FEET OF WOMEN WITH CHILD.

THIS affection is owing mostly to the pressure which the fœtus makes upon the great veins of the abdomen, although it sometimes is occasioned by debility. In such cases the person so suffering, should rest as much as possible on a sofa or bed, and if very full of blood, should lose a little. The following powders should also be taken, as they tend much to lessen the force of the blood.

COOLING POWDERS FOR PREGNANT WOMEN.

Take of cream of tartar, two drachms;
Of sulphur, half a drachm;
Of antimonial powder, ten grains;
Of jalap, one drachm:
Mix, and divide into six equal parts: one to be taken every third day. After lying-in, a bandage should be worn on the feet and ankles for a week.

With those who cannot take powders, the following mixture may be substituted.

COOLING MIXTURE FOR PREGNANT WOMEN.

Take of cream of tartar, two drachms;
Of sulphur, half a drachm;
Dissolve them in eight ounces of infusion of senna, and add a little syrup: from half a wine-glassful to a whole one is the dose.

TOILETTE OF FLORA.

NO. III.

SIR MATHEW TIERNY'S LOTION FOR PIMPLES ON THE FACE.

TAKE of spirits of wine, an ounce and a half;
Of the liquor potasse, twenty drops;
Of tincture of myrrh, ten drops.
Touch the pimples lightly with this wash once every second day, and every intermediate day touch them with a little of

SIR MATHEW TIERNY'S OINTMENT FOR PIMPLES.
(USED BY HIS MAJESTY.)

Take of purified lard, an ounce;
Of citron ointment, an ounce and a half;
Of finest almond oil, half an ounce.—Rub all well together.

This may be scented by a few drops of oil of lemon, roses, or bergamot.

HAIR CREAM.
(USED BY LADY CUNNINGHAM.)

Take of pure oil of almonds, two ounces;
Of calf's suet, three ounces;
Of rich cream, two ounces;
Of oil of roses, half a drachm;

Mix all together, and heat the mass gently over the fire, stirring it gently for half an hour.

MACCASSAR OIL.

Take three quarts of common oil,
Half a pint of spirits of wine,
Three ounces of cinnamon powder,
Two ounces of bergamot.

Put into a large pipkin, and give it a good heat. When it is off the fire, add three or four pieces of alkanut root, and keep it closely covered for several hours. Filter it through a funnel lined with blotting paper.

HUILE ANTIQUE DE LA ROSE.

This is sold at a shilling a bottle, which may be made for two-pence, by adding otto of roses or oil of roses to common oil of almonds in sufficient quantity merely to scent it.

EXTRAORDINARY HEAT OF THE WEATHER.

THE first effect of the application of great atmospheric heat to the surface of the body, whether it be the result of artificial means, or proceed from the rays of an unclouded summer sun, is an increased action of the superficial or capillary vessels, which stimulating the nervous fibrils in their vicinity, produces the sensation of heat and a temporary state of fever. This however is quickly relieved by perspiration; which carrying off in the exhalation of the watery part of the blood, a large portion of the animal heat, generated during the febrile state, is in fact a salutary and cooling process. The thirst which perspiration promotes, induces an instinctive desire for drink; and thus the fluid part of the blood is supplied in the proportion which the quantity of liquid taken into the stomach holds to that thrown off by perspiration. Whilst this balance is maintained, the application of atmospheric heat, even when excessive, does not produce an unhealthy state of the habit.

The second effect of a continued high atmospheric temperature on the body, is increased acrimony of several of the most important secretions from the blood; for example, the saliva, the bile, and the secreted fluid of the kidneys, owing to the diminution in the due quantity of their watery contents. The bile in particular is formed in a more concentrated state; and consequently, besides stimulating the bowels to such increased movement as occasionally brings on a diarrhœa, owing to the food being hurried from the stomach in a half or imperfectly digested state; it so over excites the absorbents of the intestines, that they not only take up the usual nutritious part of the food as it passes onwards, but a portion also of the bile itself; which although an excrementitious fluid, yet is thus thrown again into the blood. The result of this absorption of bile, of a more than usually acrid character, into the circulation, is a state of habit approaching to that of jaundice. It is followed by a yellow colour of the white of the eye and the skin, accompanied by a tingling sensation on the surface of the body, general restlessness, diminished appetite, a disinclination for bodily exertion, and a general torpor of mind. How far the juices of the stomach itself, and of the pancreas, (a most important organ in carrying on the process of digestion,) are affected by the changes in the functions of the skin, induced by a long continued high atmospheric temperature,

is not so easily determined: but that they are deteriorated by a hurried secretion, is more than probable.

The third effect, the last which we shall notice, of long continued hot weather on the human body, is a general exhaustion of all its powers, both corporeal and mental; and thence the inertness and languor peculiar to the natives of the torrid zone.

The general effects of the late unusually warm weather, have been those we have just described, as resulting from a long continued action of a high atmospheric temperature on the body. But these have been augmented in a great degree by the imprudence of Englishmen in braving every thing which is opposed to their usual habits; in walking about transacting their business under the ardour of the noon-day beam; in wearing nearly the same quantity of clothing as in more temperate weather; and consuming the same quantity of animal diet as in the middle of winter. To those however who act differently; who save themselves from much exertion during the heat of the day; walk out in the cool of the evening only, and leave their pillows to inhale the refreshing breath of early morning, this weather is far from being unhealthy. On the contrary, fewer diseases are generated than in cold and damp weather; and those which occur, with a few exceptions, are the consequences of ignorance, or indiscretion, or of a marked pre-disposition. Thus one of the most usual causes of disease in very hot weather, is the exposure of the body, bathed in perspiration, to a current of cool air, especially when the breeze is from the east or the north-east, the result of which is a sudden check to the perspiration, and the production of fever. The same effect is caused by drinking copiously of cold water, and eating ice too freely whilst the body is perspiring; or exerting, as we have already stated, too much muscular energy in the heat of the sun. Inflammatory fever therefore, or rather a fever approaching to it in character, synochal fever, is one of the diseases which is now prevailing. It usually commences with a sense of languor and weariness in the limbs, a disrelish for food, rigors or chilliness over the surface, occurring during the hottest period of the day, nausea, head-ache, and a quick hard pulse; all of which symptoms increase at night, and are accompanied by sleeplessness and sometimes delirium, particularly in bilious habits. Although this disease sometimes prove fatal, yet it is not, in the majority of cases, a dangerous malady; and yields to the abstraction of blood, and the administration of cooling aperient and diaphretic medicines. We do not mention this fact however with a view to encourage those who are unacquainted with the management of diseases, to prescribe for themselves or others labouring under synochal fever: for although the disease will in general yield to a judicious early application of remedies, yet the best remedial means may be misapplied, and the complaint run on to a fatal issue. It is however important that the patient should know that nothing contributes so much to recovery in this species of fever, as lying in bed under the lightest covering, in a well ventilated room; the air of which should be constantly renewed, but without permitting a sensible current of it to pass over the invalid. Cleanliness and a frequent change of linen also are absolutely requisite; and the diet should consist of light liquid matters; stimulants of every description, and animal food, being strictly avoided. When the head is much affected, the hair should be removed, and evaporating lotions, composed of spirit of wine, æther, and water, applied to the scalp by means of a sponge or rags soaked in them; or iced water should be applied in the same manner.—Our fair country-women will most likely oppose this part of the treatment; but we are certain that were they fully aware of its importance, they would soon cease to place any value on the finest head of hair, the temporary deprivation of which may be the means of saving their lives. Besides, the hair generally falls off after these fevers, and seldom grows again

as thick as it originally was; whereas, when it is removed by the razor during the progress of the disease, it rapidly grows again in all its pristine beauty on the restoration of health.

Another cause of disease in very hot summer weather, is the custom of riding out in open carriages during the extreme heat of the sun. This produces an augmented secretion of bile; which, occurring at a moment when the system is relaxed, causes these bilious diarrhœa, which have lately been also prevalent. The quantity of bile secreted under such circumstances is in some instances so great, as to regurtitate into the stomach; and exciting vomiting, to give to this disease the aspect of cholera-morbus. Notwithstanding this effect, it is a complaint requiring very simple treatment, and may be more safely intrusted to domestic medicine than many other diseases which are believed to be less virulent. The chief object is to allay the irritability of the bowels, and to subdue the increased action of the liver; both of which are effected by deluting largely the acrid bile with bland diluents, such as barley water slightly acidulated, rennet whey, linseed tea, fresh mint tea, and bitter almond emulsion mixed with mucilage of quince seeds. Ripe sub-acid fruits are useful in correcting the diseased action of the liver, and consequently diminishing the discharge of bile. When these means fail, calomel and opiates may be requisite; but in that case the domestic management should be discontinued, and medical advice resorted to: for we cannot too frequently repeat the maxim, that as soon as active medicines are required for the removal of disease, from that moment domestic management should cease.

Besides the diseases we have already noticed, some cases of acute rheumatism, intermittent head-ache, and apoplexy have occurred. Consumption also has not only run its course more rapidly than usual, but cases of it have appeared in individuals who were not supposed to be predisposed to the disease; a circumstance which can be attributed only to the frequent incautious exposure to currents of air. The immense quantity of fine dust with which the atmosphere has been loaded, may have certainly contributed in some part as an exciting cause of this disease during the late hot and dry weather; and thence the necessity of watering the streets as frequently as possible. To some, this idea may appear preposterous; but the fact is well known, that persons engaged in trades in which much fine dust is produced, such as the pointing of needles and dry grinding, generally die at an early age, of affections of the lungs; and Dr. Fordyce recorded his opinion, that the dust of the streets of London before they were paved and watered, were an extensive cause of pulmonary diseases. But it is in far advanced cases of consumption that hot weather proves most detrimental. In these, the languor and exhaustion produced by the heated state of the atmosphere hurries on the fatal catastrophe: and we have seen one or two cases in which death had taken place without any suspicion of the event on the part of the attendants—

" —— without a groan, released,
" The soul had passed away."

The ever-varying nature of our climate prevents any general plan for the management of health from being followed, as far as exposure to the air, clothing, and diet are concerned.—Thus in the space of two hours, the thermometer may fall twenty degrees, and the wind blow chilly. The same exposure of the body therefore which would have been innocuous and agreeable to the feelings two hours since, would now be hazardous. As during the summer however a renewal of hot and oppressive weather may be expected, we would strongly recommend our countrymen to alter their habits in one respect; to rise earlier, and transact much of the business of the day before breakfast; which while it will enable them, by the employment of the morning, to seclude themselves from the fervour of the meridian sun, will prevent that extreme and inju-

rious exhaustion, which is experienced under the existing system; and fit them to enjoy amusement and benefit by recreation and exercise in the cool of the evening.—

"The sun has lost his rage: his downward orb
"Shoots nothing now but animating warmth
"And vital lustre."—

Fas est, et ab hoste discire—is a maxim which applies here. The system which we recommend is practised by our Gallic neighbours, and is worthy of imitation.

ADVICE TO MOTHERS AND NURSES CONCERNING CHILDREN.

THE diseases of children, and every thing relating to their health, are objects which generally seem to have been too much neglected by physicians, and have been too long confided to the conduct of the most improper persons for such a charge. At the same time it must be admitted, that their health is of no little importance; their preservation is as necessary as the continuance of the human race; and the application of the practice of physic to their disorders, is susceptible of nearer approaches to perfection than is generally conceived. It seems to have even some advantage over that practice which regards grown persons; and it consists in this, that the diseases of children are more simple, and less frequently complicated, than those of adults.

It may be said, indeed, that they cannot make themselves so well understood, and mere infants certainly not at all. This is true, in fact, to a certain degree, but not rigidly true; for though they do not speak our language, they have one which we should contrive to understand. Nay, every disorder may be said, in some sense, to have a language of its own, which an attentive physician will learn. He should therefore use his utmost care to understand that of infants; and to avail himself of it, to increase the means of rendering them healthy and vigorous, and to cure them of the different disorders to which they are liable. We do not propose actually to complete this task ourselves, to that extent which it so justly demands, but we shall set forth the principal causes of their disorders, and the general method of treating them. By this means we shall at least preserve them from some of the mischiefs which are too frequently done them; and the lessening such evils as ignorance or erroneous practice occasions, is one of the most important purposes of the present work.

Nearly all the children who die before they are one year, or even two years old, die *with* convulsions.—People say they died *of* them, which is partly true, as it is in effect the convulsions which have destroyed them. But then these very convulsions are the consequences, the effects of other diseases, which require the utmost attention of those who are entrusted with the care and health of the little innocents—as an effectual opposition to these diseases, these morbid causes, is the only means of removing the convulsions.

The four principal known causes, are the Meconium, which is the excrements contained in the body of the infant at the birth; Acidities, or sharp and sour humours; the Cutting of the teeth; and Worms. We shall treat briefly of each.

OF THE MECONIUM.

The stomach and intestines of the infant, at its entrance into the world, are filled with a black sort of matter, of a middling consistence, and very viscid or glutinous, which is called the meconium. It is necessary this matter should be discharged before the infant sucks, since it would otherwise corrupt the milk, and (becoming extremely sharp itself) there would result from their mixture a double source of evils, to the destruction of the infant.

The evacuation of this excrement

is procured, 1. By giving them no milk at all for the first twenty-four hours of their lives. 2. By making them drink during that time some water, to which a little sugar or honey must be added, which will dilute this meconium, and promote the discharge of it by stool, and sometimes by vomiting.

To be the more certain of expelling all this matter, they should take a spoonful of castor oil. Should the great weakness of the child seem to call for some nourishment, there could be no inconvenience in allowing a little biscuit well boiled in water, which is pretty commonly done, or a little very thin light panada.

OF ACIDITIES, OR SHARP HUMOURS IN INFANTS.

Notwithstanding the bodies of children have been properly emptied very soon after their birth, yet the milk very often turns sour in their stomachs, producing vomiting, violant cholics, convulsions, a looseness, and even terminating in death. There are but two courses to be pursued in such cases; which are, to carry off the sour or sharp humours; and to prevent the generating of others. The first of these intentions is best effected by castor oil.

The generating of farther acidities is prevented, by giving three doses daily, if the symptoms are violent, and but two, or even one only, if they are very moderate, of rhubarb and magnesia.

It has been a custom to load children with oil of almonds, as soon as ever they are infested with gripes; but this is a pernicious custom, and attended with very dangerous consequences. It is very true that this oil sometimes allays the gripes immediately, by involving, or sheathing up as it were, the acrid humours, and somewhat blunting the sensibility of the nerves; but it proves only a palliative remedy, or assuaging for a time, which, far from removing, increases the cause, since it becomes sharp and rancid itself; whence the the disorder soon returns, and the more oil the infant takes, it is griped the more. We have cured some infants of such disorders, without any other remedy except abstaining from oil, which weakens their stomachs, whence their milk is less perfectly and more slowly digested, and becomes more easily soured. Besides, this weakness of the stomach, which thus commences at that very early age, has sometimes an unhealthy influence on the constitution of the child throughout the remainder of his life.

A free and open belly is beneficial to children; now it is certain that the oil very often binds them, in consequence of its diminishing the force and action of the bowels. There is scarcely any person who cannot observe this inconvenience attending it; notwithstanding, they all continue to advise and to give it, to obtain a very different purpose. But such is the power of prejudice in this case, and in so many others. People are so strongly prepossessed with a notion, that such a medicine must produce such an effect, that its never having produced it avails nothing with them—their prejudice still prevails; they ascribe its want of efficacy to the smallness of the doses; these are doubled then, and notwithstanding its bad effects are augmented, their obstinate blindness continues.

This abuse of the oil also disposes the child to knotty hard tumours, and at length often proves the first cause of some diseases of the skin, whose cure is extremely difficult.

Hence it is evident that this oil should be used on such occasions but very seldom, and that it is always very injudicious to give it in cholics which arise from sharp and sour humours in the stomach or in the bowels.

Infants are commonly most subject to such cholics during their earliest months; after which, they abate as their stomachs grow stronger. They may be relieved in the fit by clysters of a decoction of chamomile flowers, in which a bit of soap of the size of hazel-nut has been dissolved. A piece of flannel wrung out of a decoction of chamomile flowers, with the addi-

tion of a little tincture of opium, and applied hot over the stomach and on the belly, is also very beneficial and and relieving.

But one of the most certain means to prevent these cholics, which are owing to children's not digesting their milk, is to move and exercise them as much as possible, having a due regard, however, to their tender time of life.

Before we proceed to the third cause of the diseases of children, which is the cutting of their teeth, we must take notice of the first care their birth immediately requires, that is the washing of them the first time, merely to cleanse and afterwards to strengthen them.

OF WASHING CHILDREN.

The whole body of an infant just born is covered with a gross humour, which is occasioned by the fluids in which it was suspended in the womb. There is a necessity to cleanse it directly from this, for which nothing is so proper as a mixture of one-third wine and two-thirds water; wine alone would be dangerous. This washing may be repeated some days successively; but it is a bad custom to continue to wash them thus warm, the danger of which is augmented by adding some butter to the wine and water, which is too often done. If this gross humour which covers the child seems more thick and glutinous than ordinary, a decoction of chamomile flowers, with a little bit of soap, may be used to remove it. The regularity of perspiration is the great foundation of health; to procure this regularity, the teguments or skin must be strengthened; but warm washing tends to weaken it. When it is of a proper strength, it always performs its functions; nor is perspiration sensibly disordered by the alteration of the weather. For this reason nothing should be omitted that may fix it in this state; and to attain so important an advantage, children should be washed, some few days after their birth, with cold water, in the state it is brought from the spring.

For this purpose a sponge is employed, with which they should begin by washing first the face, the ears, the back part of the head, (carefully avoiding the Fontanelle,* or mould of the head,) the neck, the loins, the trunk of the body, the thighs, legs, and arms, and in short every spot. This method, which has obtained for so many ages, and which is practised at present by so many people, who prove very healthy, will seem shocking to many mothers; they would be afraid of killing their children by it, and would particularly fail of courage enough to endure the cries which children often make the first time they are washed. Yet if their mothers truly love them, they cannot give a more substantial mark of their tenderness for them, than by subduing their fears and their repugnance on this important head.

Weakly infants are those who have the greatest need of being washed; such as are remarkably strong may be excused from it; and it seems scarcely credible, (before a person has frequently seen the consequences of it,) how greatly this method conduces to give and to hasten on their strength. The midwives who have been witnesses of it, the nurses and servants of the children whom they have washed, publish it abroad; and should the custom become general, (as every thing seems to promise it will,) we are fully persuaded, that by preserving the lives of a great number of children, it will certainly contribute to check the progress of depopulation.

They should be washed very regularly every day, in every season and every sort of weather; and in the fine warm season, they should be plunged into a large pail of water, into the basins around fountains, in a brook, a river, or a lake.

After a few days crying, they grow

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* That part of the head where a pulsation may be very plainly felt, where the bones are less hard, and not as yet firmly joined with those about them.

so well accustomed to this exercise, that it becomes one of their pleasures, so that they laugh all the time of their going through it.

The first benefit of this practice is, as we have already said, the keeping up their perspiration, and rendering them less liable to the impressions of the air and weather; and it is also in consequence of this first benefit, that they are preserved from a great number of complaints, especially from knotty tumours, often called kernels, from obstructions, from diseases of the skin, and from convulsions; its general consequence being to insure to them firm and even robust health.

But care must be taken not to prevent, or as it were to undo, the benefit this washing procures them, by the bad custom of keeping them too hot. There is not a more pernicious one than this, nor one that destroys more children. They should be accustomed to light clothing by day, and light covering by night, and to go with their heads very thinly covered, and not at all in the day-time, after their attaining the age of two years. They should avoid sleeping in chambers that are too hot, and should live in the open air, both in summer and winter, as much as possible. Children who have been kept too hot in such respects, are very often liable to colds; they are weakly, pale, languishing, bloated, and melancholy. They are subject to hard knotty swellings, a consumption, all sorts of languid disorders, and either die in their infancy, or only grow up as miserable valetudinarians; while those who are washed or plunged into cold water, and habitually exposed to the open air, are just in the opposite circumstances.

We must farther add here, that infancy is not the only stage of life in which cold bathing is advantageous. We have advised it with remarkable success to persons of every age, even to that of seventy; and there are two kinds of diseases, more frequent indeed in cities than in the country, in which cold baths succeed greatly; that is, in debility or weakness of the nerves, and when perspiration is disordered. When persons are fearful of every breath of air, liable to defluxions or colds, or are feeble and languishing, the cold bath re-establishes perspiration, restores strength to the nerves, and by that means dispels all the disorders which arise from these two causes in the animal economy. It should be used according to our directions laid down under the head of BATHING (see p. 5). But in the same proportion that cold bathing is beneficial, the habitual use—or rather *abuse*—of warm baths, is pernicious; they dispose the persons addicted to them to the apoplexy, to the dropsy, to vapours, to the hypochondriacal disease; and cities in which they are too frequently used, become in some measure desolate from such distempers.

THE CUTTING OF THE TEETH.

Cutting of the teeth is often very tormenting to children, some dying under the severe symptoms attending it. If it prove very painful, we should, during that period,

1st, Keep the bowels open by a clyster, consisting only of a simple decoction of mallows; but clysters are not necessary, if the child, as it sometimes happens, have then a purging.

2. Their ordinary quantity of food should be lessened for two reasons; first, because the stomach is then weaker than usual; and next, because a small fever sometimes accompanies the cutting.

3. Their usual quantity of drink should be increased a little; the best for them certainly is an infusion of the flowers of the lime or linden tree, to which a little milk may be added.

4. Their gums should frequently be rubbed with a mixture of equal parts of honey and mucilage of quince seeds; and a root of marsh-mallows or of liquorice may be given them to chew.

It frequently happens, that during dentition, or the time of their toothing, children prove subject to knots or kernels; the syrup set down in

page 172, will be proper for infants occasionally, during the cutting of the teeth.

OF WORMS.

The meconium, the acidity of the milk, and cutting of the teeth are the three great causes of the diseases of children. There is also a fourth —Worms; which is likewise very pernicious to them; but which, nevertheless, is not, at least not near so much, a general cause of their disorders, as is generally supposed, when a child exceeding two years of age proves sick. There are a great variety of symptoms, which dispose people to think a child has worms; though there is but one that demonstrates it, which is discharging them upwards or downwards. There is great difference among children, too, in this respect, some remaining healthy, though having several worms, and others being really sick with a few.

They prove hurtful,

1. By obstructing the intestines, and compressing the neighbouring bowels by their size.

2. By sucking up the chyle intended to nourish the patient, and thus depriving him of his very substance as well as subsistence. And

3. By irritating the intestines, and even gnawing them.

The symptoms which make it probable they are infested with worms, are slight, frequent, and irregular cholics; a great quantity of spittle running off while they are fasting; a disagreeable smell of their breath, of a particular kind, especially in the morning; a frequent itchiness of their noses which makes them scratch or rub them often; a very irregular appetite, being sometimes voracious, and at other times having none at all. Pains at the stomach and vomittings; sometimes a costive belly; but more frequently loose stools of undigested matter; the belly rather larger than ordinary, the rest of the body meagre; a thirst which no drink allays; often great weakness, and some degree of melancholy. The countenance has generally an unhealthy look, and varies every quarter of an hour; the eyes often look dull, and are surrounded with a kind of livid circle: the white of the eye is sometimes visible while they sleep, their sleep being often attended with terrifying dreams or deliriums, and with continual startings, and grinding of their teeth. Some children find it impossible to be at rest for a single moment. Their urine is often whitish. They are afflicted with palpitations, swoonings, convulsions, long and profound drowsiness; cold sweats which come on suddenly; fevers which have the appearances of malignity; obscurities and even loss of sight and of speech, which continue for a considerable time; palsies either of their hands, arms, or legs, and numbnesses. Their gums are in a bad state, and as though they had been gnawed or corroded; they have often the hiccup, a small and irregular pulse, ravings, and what is one of the least doubtful symptoms, frequently a small dry cough; and not seldom a mucosity or slimyness in their stools; sometimes very long and violent cholics, which terminate in an abscess on the outside of the belly, from whence worms issue.

Dr. Kirkpatrick mentions the case of a child about three years old, whose navel, after swelling and inflaming, suppurated, and through a small orifice (which must have communicated with the cavity of the gut or the belly) discharged one of those worms which we call *teretes*, about three inches long. He had voided several by stool, after taking some vermifuge medicines. The ulcer healed some time after, and the orifice closed: but the child died the following year, of a putrid fever, which might be caused, or was aggravated by worms.

A disposition to breed worms always shews the digestions are weak and imperfect; for which reason children liable to worms should not be nourished with food difficult to digest. A long continued use of filings of iron is the remedy that most effectually destroys this disposition to generate worms, with the following pills taken every fourth night.

Take of calomel, one scruple;
Of gamboge, one scruple;
Of extract of colocynth, two scruples.
Mix, and divide into twenty pills: two pills a dose.

Next day take one of the following

WORM POWDERS.

Take of jalap, a drachm;
Of scammony, half a drachm;
Of cream of tartar, two drachms.
Mix, and divide into twelve powders.

OF CONVULSIONS.

We have already said, that the convulsions of children are almost constantly the effect of some other disease, and especially of some of the four we have mentioned. Some other, though less frequent causes, sometimes occasion them, and these may be reduced to the following.

The first of them is the corrupted humours, that often abound in their stomachs and intestines; and which, by their irritation, produce irregular motions throughout the whole system of the nerves, or at least through some parts of them; whence these convulsions arise, which are merely involuntary motions of the muscles. These putrid humours are the consequence of too great a load of aliments, of unsound ones, or of such as the stomachs of children are incapable of digesting. These humours are also sometimes the effect of a mixture and confusion of different aliments, and of a bad distribution of their nourishment.

It may be known that the convulsions of a child are owing to this cause, by the circumstances that have preceded them; by a disgusted loathing stomach; by a certain heaviness and load at it; by a foul tongue; a great belly; by its bad complexion, and by its disturbed unrefreshing sleep.

The child's proper diet, that is, a certain diminution of the quantity of its food; some clysters of warm water, and one purge of castor oil, generally remove such convulsions.

The second cause is the bad quality of their milk. Whether it be that the nurse has fallen into a violent passion, some considerable disgust, great fright, or frequent fear: whether she has eat unwholesome food, drank too much wine, spirituous liquors, or any strong drink: whether she is seized with a descent of her monthly discharges, which may have greatly disordered her health; or finally whether she prove really sick: in all these cases the milk is vitiated, and exposes the infant to violent symptoms, which sometimes speedily destroy it.

The remedies for convulsions, from this cause, consist,

1. In letting the child abstain from this corrupted milk, until the nurse shall have recovered her state of health and tranquillity, the speedy attainment of which may be forwarded by a few clysters; by gentle pacific medicines; by an entire absence of whatever caused or conduced to her bad health; and by drawing off all the milk that had been so vitiated.

2. In giving the child itself some clysters; in making it drink plentifully of a light infusion of the flowers of the lime-tree, or whey, or barley water; in giving it no other nourishment for a day or two, except panada, made of powdered biscuit, and other light spoon-meat, without milk.

3. In purging the child (supposing what has been just directed to have been unavailable) with a little manna or senna. These lenient gentle purges carry off the remainder of the corrupted milk, and remove the disorders occasioned by it.

A third cause which also produces convulsions, is the feverish distempers which attack children, especially the small-pox and the measles; but in general such convulsions require no other treatment, but that proper for the disease, which has introduced them.

It is evident from what has been said in this article, and it deserves to be attended to; that convulsions are commonly a symptom attending some other disease, rather than an original disease themselves; that they

depend on many different causes; that from this consideration there can be no general remedy for removing or checking them; and that the only means and medicines which are suitable in each case, are those, which are proper to oppose the particular cause producing them, and which we have already pointed out in treating of each cause.

The greater part of the pretended specifics, which are indiscriminately and ignorantly employed in all sorts of convulsions, are often useless, and still oftener prejudicial. Of this last sort and character are,

1. All sharp and hot medicines, spirituous liquors, oil of amber, other hot oils and essences, volatile salts, and such other medicines as, by the violence of their action on the irritable organs of children, are likelier to produce convulsions, than to allay them.

2. Astringent medicines, which are highly pernicious, whenever the convulsions are caused by any sharp humour, that ought to be discharged from the body by stool; or when such convulsions are the consequences of an effort of nature, in order to effect a crisis: and as they almost ever depend on one or the other of these causes, it follows that astringents can very rarely, if ever, be beneficial. Besides that, there is always some danger in giving them to children, without a mature, a thorough consideration of their particular case and situation, as they often dispose them to obstructions.

3. The over early and too considerable use of opiates, either not properly indicated, or continued too long, such as Venice treacle, mithridate, syrup of poppies (and it is very easy to run upon some of these shoals,) are also attended with the most embarrassing events, in regard to convulsions; and it may be affirmed they are improper for nine-tenths of those they are advised to. It is true they often produce an apparent ease and tranquillity for some minutes, and sometimes for some hours too; but the disorder returns even with greater violence for this suspension, because they have augmented all the causes producing it; they impair the stomach; they bind up the belly; they lessen the usual quantity of urine; and besides, by their abating the sensibility of the nerves, (which ought to be considered as one of the chief centinels appointed by Nature, for the discovery of any approaching danger,) they dispose the patient insensibly to such constipations and obstructions, as tend speedily to produce some violent and mortal event, or which generate a disposition to languid and tedious diseases; and we do again repeat it, that notwithstanding there are some cases, in which they are absolutely necessary, they ought in general to be employed with great precaution and prudence, and never except under the direction of a physician. To mention the principal indications for them in convulsive cases, they are proper,

1. When the convulsions still continue, after the original cause of them is removed.

2. When they are so extremely violent, as to threaten a great and very speedy danger of life; and when they prove an obstacle to the taking remedies calculated to extinguish their cause.

3. When the cause producing them is of such a nature, as is apt to yield to the force of anodynes; as when, for instance, they have been the immediate consequence of a fright.

There is a very great difference in different children, in respect to their being more or less liable to convulsions. There are some, in whom very strong and irritating causes cannot excite them; not even excruciating gripes and cholics; the most painful cutting of their teeth; violent fevers; the small-pox; measles; and though they are, as it were, continually corroded by worms, they have not the slightest tendency to be convulsed. On the other hand, some are so very liable to convulsions, or so easily convulsible, if that expression may be allowed, that they are very often seized with them from

such very slight causes, that the most attentive consideration cannot investigate them. Cold bathing—that is, washing frequently in cold water, with due attention to wholesome food, are the best safeguards against these attacks.

THE MEASLES.

THE measles, to which the human species are as generally liable as to the small-pox, is a disease considerably related to it; though generally speaking it is less fatal; notwithstanding which, it is not a little destructive in some countries. In Switzerland they lose much fewer immediately in the disease, than from the consequences of it.

It happens now and then that the small-pox and the measles rage at the same time, and in the same place; though it is more frequently observed that each of them was epidemical in different years. Sometimes it also happens that both these diseases are combined at once in the same person; and that one supervenes before the other has finished its course, which makes the case very perilous.

In some constitutions the measles gives notice of its approach many days before its actual invasion, by a small, frequent, and dry cough, without any other sensible complaint; though more frequently by a general uneasiness; by successions of shivering and heat; by a severe head-ache in grown persons; a heaviness in children; and by what particularly characterizes this disease, an inflammation and considerable heat in the eyes, attended with a swelling of the eye-lids, with a discharge of sharp tears, and so acute a sensation or feeling of the eyes, that they cannot bear the light; by very frequent sneezings, and a dripping from the nose of the same humour with that which trickles from the eyes.

The heat and the fever increase with rapidity; the patient is afflicted with a cough, a stuffing, with anguish, and continual retchings to vomit; with violent pains in the loins; and sometimes with a looseness, under which circumstance he is less persecuted with vomiting. At other times, and in other subjects, perspiration chiefly prevails, though in less abundance than in the small-pox. The tongue is foul and white; the thirst is often very high; and the symptoms are generally more violent than in the mild small-pox.

At length, on the fourth or fifth day, and sometimes about the end of the third, a sudden eruption appears, and in very great quantity, especially about the face, which in a few hours is covered with spots, each of which resembles a flea-bite; many of them soon joining form red streaks or suffusions larger or smaller, which inflame the skin, and produce a very perceptible swelling of the face; whence even the eyes are sometimes closed. Each small spot or suffusion is raised a little above the surface, especially in the face, where they manifest both to the sight and touch. In the other parts of the body, this elevation or rising is scarcely perceptible by any circumstance but the roughness of the skin.

The eruption having first appeared in the face, is afterwards extended to the breast, the back, the arms, the the thighs, and the legs. It generally spreads very plentifully over the breast and back, and sometimes red suffusions are found upon the breast before any eruption has appeared in the face.

The patient is often relieved, as in the small-pox, by plentiful discharges of blood from the nose, which carry off the complaints of the head, of the eyes, and of the throat.

Whenever this distemper appears in its mildest character, almost every symptom abates after eruption, as it happens in the small-pox; though in general the change for the better is not so perceptible as it is in the small-pox. It is certain the retchings and vomitings cease almost entirely; but the fever, the cough, and the head-ache continue: and it has been observed that a bilious vomiting, a day or two after the eruption, proved a more considerable relief to the pa-

tient than the eruption had proved. On the third or fourth day of the eruption, the redness diminishes; the spots or very small pustules dry up and fall off in very little branny scales; the cuticle or superficial skin also shrivels off, and is replaced by one succeeding beneath it. On the ninth day, when the progress of the malady has been speedy, and on the eleventh when it has been very slow, no trace of the redness is to be found; and the surface immediately resumes its usual appearance.

Notwithstanding all which, the patient is not safe, except during the course of the disease, or immediately after it, he has had some considerable evacuation; such as the vomiting we have just mentioned; or a bilious looseness; or considerable discharges by urine; or plentiful perspiration. For when any of these evacuations supervene, the fever vanishes, the patient resumes his strength, and perfectly recovers. It happens sometimes too, and even without any of these perceptible discharges, that insensible perspiration expels the relics of the poisonous cause of this disease, and the patient recovers his health. Yet it occurs too often, that this venom not having been entirely expelled, or its internal effects not having been thoroughly effaced, it is repelled upon the lungs, where it produces a slight inflammation. In consequence of this, the oppression, the cough, the anguish, and the fever return, and the patient's situation becomes very dangerous.—This outrage is frequently less vehement, but it proves tedious and chronical, leaving a very obstinate cough behind it, with many resemblances of the hooping-cough.

However, notwithstanding this be the frequent progress and consequence of this disease, when left entirely to itself, or erroneously treated, and more particularly when treated with a hot regimen; yet when proper care was taken to moderate the fever at the beginning, to dilute and to keep up the evacuations, such unhappy consequences have been very rare.

The proper method of conducting this distemper is much the same with that of the small-pox.

1. If the fever be high, the pulse hard, the load and oppression heavy, and all the symptoms violent, the patient must be bled once or twice.

2. His legs must be bathed, and he must take some clysters: the vehemence of the symptoms must regulate the number of each.

3. Barley water, with cream of tartar and sugar, must be taken, or a tea of elder and lime-tree flowers, to which add a fifth part milk.

4. The vapour or steam of warm water should also be employed, as very conducive to assuage the cough, the soreness of the throat, and the oppression the patient labours under.

5. As soon as the efflorescence or redness becomes pale, the patient is to be purged with the following

PURGATIVE DRAUGHT.

Take of the pulp of tamarinds, an oz.
Of nitre, half a drachm:
Boil a minute, then add two ounces of manna, and strain off the fluid.

6. He is still to be kept strictly to his regimen, for two days after this purge; after which he is to be put upon the regimen of those who are in a state of recovery.

7. If during the eruption, such symptoms supervene as occur (at the same time) in the small-pox, they are to be treated in the manner already directed there.—[*See page* 174.]

Whenever this method has not been observed, and the accidents above described supervene, the disease must be treated like an inflammation in its first state, and all must be done as here directed. If the disease be not vehement, bleeding may be omitted. If it be of some standing in gross children, loaded with humours, inactive, and pale, we must add to the medicines already prescribed, the following:—

Take of oxymel of squills, an ounce;
Of barley water, five ounces:
Mix.
Also apply blisters to the legs.

It often happens from the distance of proper advice, that the relics—the dregs as it were, of the disease have been too little regarded, especially the cough; in which circumstance it forms a real suppuration in the lungs, attended with a slow fever. Many children are destroyed by this neglect. Their case terminates in a looseness, attended with very little pain, and is sometimes a very fœtid one, which carries off the patient. In such cases we must use air, exercise, milk diet, and decoction of bark.

Sometimes there remains after the course of the measles, a strong dry cough, with great heat of the breast, and throughout the whole body, with thirst, an excessive dryness of the tongue, and of the whole surface of of the body. Persons thus indisposed after this disease, have been cured by making them breathe in the vapour of warm water; by the repeated use of warm baths; and by allowing them to take nothing for several days but water and milk.

Before we take leave of this subject we assure the reader, that the contagious cause of the measles is of an extremely sharp and acrid nature. It appears to have some resemblance to the bilious humour which produces the eresipelas, or St. Anthony's fire; and thence it demands our particular attention and vigilance; without which, very troublesome and dangerous consequences may be apprehended.

Sarsaparilla, with milk and water, and also the Bristol waters, are good after measles.

FITS; OR CONVULSIONS.

We should do nothing but guard the patient from mischief, and put a roller of linen between his teeth, to prevent his tongue from being hurt, or very dangerously squeezed and bruised, in a strong convulsion.

The only case which requires immediate assistance in the fit, is, when it is so extremely violent, the neck so swelled, and the face so very red, that there is reason to be apprehensive of an apoplexy, which we should endeavour to obviate, by drawing ten or twelve ounces of blood from the arm.

As this terrible disease is common in the country, it is doing a real service to the unfortunate victims of it, to inform them how very dangerous it is to give themselves blindly up to take all the medicines which are cried up to them in such cases. If there be any one disease which requires a more attentive, delicate, and exquisite kind of treatment, it is this very disease. Some species of it are wholly incurable; and such as may be susceptible of a cure, require the utmost care and consideration of the most enlightened and experienced physicians; while those who pretend to cure all epileptic patients with one invariable medicine, are either ignorants or impostors, and sometimes both in one.

Simple convulsion fits, which are not epileptic, are frequently of a long continuance, persevering, with very few and short intervals, for days and even weeks.

The true genuine cause should be investigated as strictly as possible, though nothing should be attempted in the fit. The nerves, during that period, are in so high a degree of tension and sensibility, that the very medicines, supposed to be strongly indicated, often redouble the storm they were intended to allay.

Thin watery liquors, moderately imbued with aromatics, are the least hurtful and most innocent things that can be given; such as balm, lime-tree, and elder-flower tea. A drink made of the liquorice root only has sometimes answered better than any other.

SUFFOCATING OR STRANGLING FITS.

These fits, (by whatever other name they may be called,) whenever they very suddenly attack a person whose breathing was easy and natural just

before, depend almost constantly on a spasm or contraction of the nerves in the vesicles of the lungs, or upon a constipation or stuffing of the same parts, produced by viscid clammy humours.

That suffocation which arises from a spasm is not dangerous; it goes off of itself, or it may be treated like swoonings owing to the same cause.—(See our observations on SWOONINGS.)

The suffocation, which is the effect of a fulness of blood and obstruction, may be distinguished by its attacking strong, vigorous, and sanguine persons, who are great eaters, using much juicy nutritious food, and strong wine and liquors, and who frequently eat and inflame themselves; and when the fit has come on after any inflaming cause; when the pulse is full and strong, and the countenance red.

Such are cured, 1st. By a very plentiful discharge of blood from the arm, which is to be repeated if necessary.

2. By the use of clysters.

3. By drinking plentifully of whey, to each quart of which a drachm of nitre is to be added.

4. By the vapour of hot vinegar, continually received by respiration or breathing.

There is reason to think that one of these fits is owing to a quantity of tough viscid humours in the lungs, when it attacks persons whose temperament and whose manner of living are opposite to those I have just described; such as valetudinary, weakly, phlegmatic, inactive, and squeamish persons, who feed badly, or on fat viscid, and insipid diet, and who drink much hot water, either alone or in tea-like infusions; and these signs of suffocation, resulting from such causes, are still more probable, if the fit come on in rainy weather, and during a southerly wind; and when the pulse is soft and small, and the visage pale and hollow.

The most efficacious treatment we can advise is, 1st, to give every half hour, half a cup of the following, if it can readily be had:

Take of oxymel of squills, one oz.
Of barley-water, six ounces;
Of cream of tartar, half a dr.;
Mix.

2. To make the patient drink very plentifully of whey.

3. To apply two strong blisters to the fleshy parts of his legs.

If he were strong and hearty before the fit, and the pulse still continues vigorous, and feels also somewhat full, the loss of seven or eight ounces of blood is sometimes indispensably necessary. A clyster has also frequently been attended with extraordinary good effects.

Those afflicted with this oppressing malady are commonly relieved as soon as they expectorate, and sometimes even by vomiting a little.

In want of other medicines, an onion of a moderate size should be pounded in an iron or marble mortar; upon this, a glass of vinegar is to be poured, and then strongly squeezed out again through a piece of linen. An equal quantity of honey is then to be added to it. A spoonful of this mixture, the remarkable efficacy of which we have witnessed, is to be given every half hour.

ON THE VIOLENT EFFECTS OF FRIGHT.

WE shall insert some directions to prevent the ill consequences of great fear or terror, which are very prejudicial at every time of life, but chiefly during infancy.

The general effects of terror are a great straitening and contraction of all the small vessels, and a repulsion of the blood into the large and internal ones. Hence follows the suppression of perspiration, the general seizure or oppression, the trembling, the palpitations and anguish, from the heart and lungs being overcharged with blood; and sometimes attended with swoonings, irremediable disorders of the heart, and death itself.—A heavy drowsiness, raving, and a kind of furious or raging delirium,

happen in other cases, which we have frequently observed in children, when the blood-vessels of the neck were swelled or puffed up; and convulsions or even the epilepsy have come on, all of which have proved the shocking consequence of a most senseless and wicked foolery or sporting. One half of those epilepsies, which do not depend on such causes as might exist before the child's birth, are owing to this reprehensible custom, and it cannot be too much inculcated into children, never to frighten one another — a point which persons, entrusted with their education, ought to have a strict regard to.

When the humours that should have passed off by perspiration are repelled to the intestines, a tedious and very obstinate looseness is the frequent consequence.

Our endeavours should be directed to re-establish the disordered circulation, to restore the obstructed perspiration, and to allay the agitation of the nerves.

The popular custom in these cases has been to give the terrified patient some cold water directly; but when the fright has been considerable, this is a very pernicious custom, and we have seen some very shocking consequences from it.

They should, on the contrary, be conveyed into some very quiet situation, leaving there but very few persons, and such only as they are thoroughly familiar with. They should take a few cups of pretty warm drink, particularly of an infusion of lime-tree flowers and balm; their legs should be put into warm water, and remain there an hour, if they will patiently permit it, rubbing them gently now and then, and giving them every half-quarter of an hour, a small cup of the same drink.— When their composure and tranquillity are returned a little, and their skin seems to have recovered its wonted and general warmth, care should be taken to dispose them to sleep, and to perspire plentifully. For this purpose they may be allowed a few spoonsful of wine on putting them into bed, with one cup of the former infusion; or, which is more certain and effectual, a few drops of laudanum.

It sometimes happens that children do not seem at first extremely terrified; but the fright is renewed while they sleep, and with no small violence. The directions we have just given must then be observed, for some successive evenings, before they are put to bed.

The fright frequently returns about the latter end of the night, and agitates them violently every day. The same treatment should be continued in such cases; and we should endeavour to dispose them to be asleep at the usual hour of its return.

If a suffocation from this cause is violent, there is sometimes a necessity for opening a vein in the arm.

These patients should gradually be inured to an almost continual but gentle kind of exercise.

All violent medicines render those diseases, which are the consequences of great fear, incurable. A very common one is that of an obstruction of the liver, which has been productive of a jaundice.

THE ITCH.

The itch is an infectious disorder, contracted by touching infected persons or clothes, but not imbibed from the air: so that by carefully avoiding the medium or means of contagion, the disorder may be certainly escaped.

Though any part of the body may be infected with the itch, it commonly shews itself on the hands, and chiefly between the fingers. At first one or two little pimples or pustules appear, filled with a kind of clear water, and excite a very disagreeable itching. If these pustules are broken by scratching them, the water oozing from them infects the neighbouring parts. At the beginning of this infection it can scarcely be distinguished, if a person is not well apprized of its nature; but in the progress of it, the little pustules increase both

in number and size; and when they are opened by scratching, a loathsome kind of scab is formed, and the malady extends over the whole surface. Where they continue long, they produce small ulcers, and are at that time highly contagious.

Bad diet, particularly the use of salted meat, bad unripe fruit, and uncleanliness, occasion this disease; though it is oftenest taken by contagion. Some very good physicians suppose it is never contracted otherwise; but we must beg leave to dissent, as we have certainly seen it exist without contagion.

When it happens to a person, who cannot suspect he has received it by contact, his cure should commence with a total abstinence from all salt, sour, fat, and spicy food. He should drink whey, and take a dose of Epsom salts. His abstinence and his regimen is to be continued; the purge to be repeated after six or seven days; and then all the parts affected, and those very near them, are to be rubbed in the morning fasting, with sulphur ointment. The three following days the same friction is to be repeated, after which the same quantity of ointment is to be procured, and used in the same proportion; but only every other day. It happens but seldom that this method fails to remove this disagreeable malady; sometimes, however, it will return, in which case the patient must be purged again, and then recur to the ointment.

If the disease have been very lately contracted, and most certainly by contact, the ointment may be fearlessly employed, as soon as it is discovered, without taking any purge before it. But if, on the contrary, the disease have been long neglected, and has arisen to a high degree, it will be necessary to restrain the patient a long time to the regimen we have directed; he must be repeatedly purged, and then drink plentifully of cream of tartar water, before the ointment is rubbed in.

While these medicines are employed, the patient must avoid all cold and wet.

The linen of a person in this disease ought to be often changed; but his upper clothes must not be changed; because these having been infected, might, when worn again, communicate the itch to the wearer again, after he had been cured.

Shirts, breeches, and stockings may be fumigated with sulphur, before they are put on; and this fumigation should be made in the open air.

SWOONINGS AND FAINTINGS.

FAINTINGS OCCASIONED BY A LOAD, OR UNEASINESS AT THE STOMACH.

It has been already observed, in speaking of swooning, that indigestions were sometimes attended with these effects, and indeed so vehement, as to require speedy and very active remedies, such as that of an emetic. The indigestion is sometimes less the effect of the quantity, than of the quality, or the corruption of the food contained in the stomach. Thus we see there some persons who are disordered by eating eggs, fish, crawfish, or any fat meat; being thrown by them into inexpressible anguish, attended with swooning. It may be supposed to depend on this cause, when these very aliments have been lately eaten; and when it evidently neither depends on the other causes we have mentioned, nor on such as we shall soon proceed to enumerate.

We should in cases of this sort, excite and revive the patients as in the former, by making them receive some very strong smell, of whatever kind is at hand; but the most essential point is to make them swallow a large quantity of light warm fluid; which may serve to drown, as it were, the undigested matter; which may soften its acrimony; and either effect the discharge of it by vomiting, or force it down into the channel of the intestines.

A light infusion of chamomile flowers, of tea, of sage, or of elder-flowers, operate with much the same

efficacy; though the chamomile promotes the operation of vomiting rather more powerfully; which warm water alone will sometimes sufficiently do.

The swooning ceases, or at least considerably abates in these cases, as soon as the vomiting commences. It frequently happens too, that during the swooning, nature herself brings on a certain nausea, a wambling and sickish commotion of the stomach, that revives or rouses the patient for a moment; but yet not being sufficient to excite an actual vomiting, it lets him soon sink down again into this temporary dissolution, which often continues a considerable time; leaving behind it a sickness at the stomach, vertigos, and a depression and anxiety, which do not occur in the former species of this malady.

Whenever these swoonings from this cause are entirely terminated, the patient must be kept for some days to a very light diet, and take at the same time, every morning fasting, a dose of rhubarb, which relieves and exonerates the stomach of whatever noxious contents might remain in it; and then restores its natural strength and functions.

There is another kind of swooning, which also results from a cause in the stomach: but which is, nevertheless, very different from this we have just been treating of; and which requires a very different kind of assistance. It arises from an extraordinary sensibility of this important organ, and from a general weakness of the patient.

Those subject to this malady are valetudinary weakly persons, who are disordered from many slight causes, and whose stomachs are at once very feeble and extremely sensible. They have almost continually a little uneasiness after a meal, though they should indulge but a little more than usual; or if they eat of any food not so easy of digestion, they have some qualm or commotion after it: nay, should the weather only be unfavourable, and sometimes without any perceptible assignable cause, their uneasiness terminates in a swoon.

Patients swooning from these causes, have a greater necessity for much tranquillity and repose, than for any other remedy; and it might be sufficient to lay them down on a bed: but as the by-standers in such cases find it difficult to remain inactive spectators of persons in a swoon, some spirituous liquid may be held to their nose, while their temples and wrists are rubbed with it; and at the same time a little wine should be given them. Frictions are also useful in these cases.

This species of swooning is oftener attended with a little feverishness than the others.

SWOONINGS WHICH ARISE FROM NERVOUS DISORDERS, CALLED THE VAPOURS.

By disorders of the nerves, we understand in this place, only that fault or defect in them, which is the cause of their exciting in the body, either irregular motions, that is motions without any external cause, at least any perceptible one; and without the will consenting to the production of them; or such motions as are greatly more considerable than they should be, if they had been proportioned to the force of the impression from without. This is very exactly that state or affection termed the vapours: and as there is no organ unprovided with nerves, and none, or hardly any function, in which the nerves have not their influence, it may be easily comprehended that the vapours, being a state or condition which arises from the nerves exerting irregular involuntary motions, without any evident cause, and all functions of the body depending partly on the nerves, there is no one symptom of other diseases which the vapours may not produce or imitate; and that these symptoms, for the same reason, must vary infinitely, according to those branches of the nerves which are disordered. It may also hence be conceived, why the vapours of one person have frequently no resemblance to those of another: and why the vapours of the same person, in one day, are so very different from those in the next. It is also very

conceivable that the vapours are a certain, a real malady; and that oddity of the symptoms, which cannot be accounted for by people unacquainted with the animal economy, has been the cause of their being considered rather as the effect of a depraved imagination, than as a real disease. It is very conceivable, we repeat, that this surprising oddity of the symptoms is a necessary effect of the cause of *the vapours;* and that no person can any more prevent his being invaded by the vapours, than he can prevent the attack of a fever, or of the tooth-ache.

A few plain instances will furnish a more complete notion of the nature of vapours. An emetic excites the act or convulsion of vomiting, chiefly by the irritation it gives to the nerves of the stomach; which irritation produces a spasm or contraction of this organ. Now, if in consequence of this morbid or defective texture of the nerves, which constitutes the vapours, those of the stomach are excited to act with the same violence, as in consequence of taking a vomit, the patient will be agitated and worked by violent efforts to vomit, as much as if he had really taken one.

If an involuntary unusual motion in the nerves that are distributed through the lungs, should constrain and straiten the very little vesicles, or bladders as it were, which admit the fresh air at every respiration, the patient will feel a degree of suffocation, just as if that straitening or contraction of the vessels were occasioned by some noxious steam or vapour.

Should the nerves, which are distributed throughout the whole skin, by a succession of these irregular morbid motions, contract themselves, as they may from external cold, or by some stimulating application, perspiration by the pores will be prevented or checked; whence the humours which should be evacuated through the pores of the skin, will be thrown upon the kidneys, and the patient will make a great quantity of thin clear urine, a symptom very common to vapourish people; or it may be diverted to the glands of the intestines, and terminate in a watery diarrhœa or looseness, which frequently proves very obstinate.

Neither are swoonings the least usual symptoms attending the vapours; and we may be certain they spring from this source, when they happen to a person subject to the vapours, and when none of the other causes producing them are evident, or have lately preceded them.

Such swoonings, however, are very rarely dangerous, and scarcely require any medical assistance. The patient should be laid upon a bed; the fresh air should be freely admitted to him; and he should be made to smell rather to some disagreeable and fœtid, than to any fragrant substance. It is in such faintings as these that the smell of burnt leather, feathers, or paper, has often proved of great service.

FAINTINGS FROM TOO LONG FASTING, &c.

Persons also frequently faint away in consequence of fasting too long; or from having eaten a little too much; from being confined in too hot a chamber; from having seen too much company; from smelling too overpowering a scent; from being too costive; from being too forcibly affected with some discourse or sentiments; and in a word, from a great variety of causes, which might not make the least impression on persons in perfect health; but which operate violently upon those vapourish people; because, as we have said, the fault of their nerves consists in their being too vividly—too acutely affected: the force of their sensation not being proportioned to the external cause of it.

As soon as that particular cause is distinguished from all the rest, which has occasioned the present swooning, it is manifest that this swooning is to be remedied by removing that particular cause of it.

SWOONINGS OCCASIONED BY THE PASSIONS.

There have been some instances of persons dying, within a moment, through excessive joy: but such in-

stances are so very rare and sudden, that assistance has seldom been sought for on these occasions. The case is otherwise with respect to those produced from rage, vexation, dread, or horror.

Excessive rage and violent affliction are sometimes instantaneously fatal; though they oftener terminate in fainting only. Excessive grief and chagrin is especially accompanied with this consequence; and it is very common to see persons thus affected, sink into successive faintings for several hours. It is plainly obvious that very little assistance can be given in such cases; it is proper, however, that they should smell to strong vinegar, and frequently take a cup of some hot and temperately cordial drink, such as negus, or weak brandy and water.

The most efficacious, calming, and assuaging cordial is one small teaspoonful of a mixture of three parts of the anodyne liquor of Hoffman, and one part of the spirituous tincture of amber, which should be swallowed in a spoonful of water; taking after it a few sups of such drinks as we shall presently direct.

It is not to be supposed that swoonings or faintings from excessive passions can be cured by nourishment. The physical state or condition, into which vehement grief throws the body, is that of all others, in which nourishment would be most injurious to it: and as long as the vehemence of the affliction endures, the sufferer should take nothing but some spoonsful of soup or broth, or a few morsels of some light meat roasted.

When rage has risen to so high a pitch, that the body, entirely exhausted, as it were, by that violent effort, sinks down at once into excessive relaxation; a fainting sometimes succeeds, and even the most perilous degree of it,—a syncope.

It is sufficient, or rather the most that can be done here, to let the patient be perfectly still awhile in this state: only making him smell to some vinegar. But when he comes to himself, he should drink plentifully of hot lemonade.

Sometimes there remain in these cases, sicknesses at the stomach, retchings to vomit, a bitterness in the mouth, and some vertiginous symptoms which seem to require a vomit: but such a medicine must be very carefully voided, since it may be attended with the most fatal consequences; and lemonade gradually removes these swoonings. If the nausea and sickness at the stomach continue, the utmost medicine we should allow besides, would be a dose of cream of tartar.

SYMPTOMATICAL SWOONINGS, OR SUCH AS HAPPEN IN THE PROGRESS OF OTHER DISEASES.

Swoonings which supervene in the course of other diseases, never afford a favourable prognostic, as they denote weakness;—and weakness is an obstacle to recovery.

In the beginning of putrid diseases they denote an oppression at the stomach, or a mass of corrupt humours; and they cease as soon as an evacuation supervenes, whether by vomit or by stool.

When they occur at the beginning of malignant fevers, they declare the high degree of their malignancy, and the great diminution of the patient's natural strength.

In each of these cases, vinegar used externally and internally is the best remedy during the height of the paroxysm; and plenty of lemon juice and water after it.

Swoonings which supervene in diseases, accompanied with great evacuations, are cured like those which are owing to weakness; and we should endeavour to restrain or moderate the evacuations.

Those who have any inward abscess or imposthume, are apt to swoon frequently. They may sometimes be revived by a little vinegar; but they prove too frequently fatal.

Many persons have a slighter or a deeper swooning at the end of a violent fit of an intermitting fever, or at that of every paroxysm of a continual fever; this constantly shews the fever has run very high, the swooning having been the consequence of that

great relaxation, which has succeeded to a very high tension. A spoonful or two of light white wine, with an equal quantity of water, affords all the assistance that is proper in such a case.

Persons subject to frequent swoonings, should neglect nothing that may enable them to remove them when known; since the consequences are always detrimental, except in some fevers, in which they seem to mark the crisis.

Every swooning fit leaves the patient in dejection and weakness; the secretions from the blood are suspended; the humours disposed to stagnation; grumosities or coagulations and obstructions are formed; and if the motion of the blood be totally intercepted, or considerably checked, polypuses, (and these often incurable,) are formed in the heart, or in the larger vessels; the consequences of which are dreadful, and sometimes give rise to internal aneurisms, which always prove mortal, after long anxiety and oppression.

Swoonings which attack old people without any manifest cause, always are unfavourable.

SWOONINGS FROM INVOLUNTARY LOSS OF BLOOD.

Bleedings of the nose supervening in inflammatory fevers commonly prove a favourable crisis; which bleeding we should carefully avoid stopping, except it become excessive and seems to threaten the patient's life.

As they scarcely ever happen in very healthy subjects, but from a superfluous quantity of blood, it is very improper to check them too soon; lest some internal stuffings and obstructions should prove the consequence.

A swooning sometimes ensues after the loss of only a moderate quantity of blood. This swooning stops the bleeding, and goes off without any further assistance, except the smelling to vinegar. But in other cases there is a succession of fainting fits, without the blood's stopping; while at the same time slight convulsive motions and twichings ensue, attended with a raving, when it becomes really necessary to stop the bleeding: and indeed, without waiting till these violent symptoms appear, the following signs will sufficiently direct us, when it is right to stop the flux of blood, or to permit its continuance:—as long as the pulse is still pretty full; while the heat of the body is equally extended to the very extremities; and while the countenance and lips preserve their natural redness, no ill consequence is to be apprehended from the hæmorrhage, though it have been very copious, and even somewhat profuse.

But when the pulse begins to faulter and tremble; when the countenance and the lips grow pale, and the patient complains of a sickness at the stomach, it is absolutely necessary to stop the discharge of blood. And considering that the operation of remedies does not immediately follow the exhibition or application of them, it is safer to begin a little too early with them, than to delay them a little too long.

1. Tight bandages, or ligatures, should be applied round both arms, in order to stop bleeding; and round the lower part of both thighs, on the gartering place; and all these should be drawn tolerably tight, with an intention to detain and accumulate the blood in the extremities.

2. In order to increase this effect, the legs are to be plunged into warm water up to the knees: for by relaxing the bood vessels of the legs and feet, they are dilated at the same time; and thence receive and (in consequence of the ligatures above the knees) retain more blood. If the water were cold it would repel the blood to the head; if hot, it would increase the motion of it; and by giving a greater quickness to the pulse, would even contribute to increase the bleeding.

As soon, however, as the bleeding is stopped, the ligatures on the thighs may be relaxed a little, or one of them may be entirely removed; allowing the others to continue on an hour or two longer without touching them:

but great precaution should be taken not to slacken them entirely, nor all at once.

3. Seven or eight grains of nitre, and a spoonful of vinegar in half a glass of cold water, should be given to the patient every half hour.

4. One drachm of white vitriol must be dissolved in two spoonsful of spring water; and a tent of lint, or bits of soft fine linen, dipped in this solution, are to be introduced into the nostrils, horizontally at first, but afterwards to be intruded upwards, and as high as may be, by the assistance of a flexible bit of wood or whalebone. But should this application be ineffectual, the anodyne liquor of Hoffman is certain to succeed; but in the country, where it often happens that neither of these applications are to be had speedily, brandy, and even spirit of wine, mixed with a third part of vinegar, have answered extremely well.

5. When the flux of blood is totally stopped, the patient is to be kept as still and quiet as possible; taking great care not to extract the tent which remains in the nose; nor to remove the clots of coagulated blood which fill up the passage: the loosening and removing of these should be effected very gradually and cautiously; and frequently the tent does not spring out spontaneously till after many days.

Applications of cold water to the nape of the neck ought to be wholly disused, having sometimes been attended with the most embarrassing consequences.

People who are very liable to frequent bleedings, should take very little supper; avoid all sharp and spirituous liquors; apartments that are over hot; and cover their heads but very lightly.

When a patient has for long time been subject to bleedings, if they cease, he should retrench from his usual quantity of food; accustom himself to artificial bleedings at proper intervals; and take some gentle opening purges, and frequently a little nitre in an evening.

We refer to our observations on bleeding for the further elucidation of this subject.

MR. WALLER's REMEDY FOR THE NIGHT-MARE.

THIS writer was a surgeon in the Navy, and was himself a sufferer for many years from this distressing complaint. He recommends *carbonate of soda* to be taken in the beer which is drank at dinner or supper.

This, he says, neutralizes the acid which occasions night-mare. Oranges and all other acids are injurious.—We recommend, in addition to Mr. Waller's remedy, the daily use of the following

PILLS FOR NIGHT-MARE.

Take of Rufus's pill, half a drachm;
Of rhubarb, half a drachm;
Of oil of cloves, ten drops:
Mix, and make into twenty pills; two a dose.

GOOD AND EVIL EFFECTS OF BITTERS, STOMACHICS, AND TONICS.

THOSE whose stomachs become out of order by the use, or rather abuse, of spirituous liquors, and constipation, eagerly fly to the use of bitters, such as gentian, Peruvian bark, quassia, orange peel, &c.; and the manner of using such medicines is generally by combining them with spirits. A habit is thus acquired, which, by persisting in, goes still farther in destroying the tone of the stomach, than the original cause of its derangement. Bitters, or TONICS as they are called, are a very useful class of medicines when used with judgement; but not one person in a thousand, even amongst medical men, take the proper precaution in their application. Let it be always observed, that bitters soon change their salutary effects by repetition or being over-done, and therefore they should never be continued more than three or four weeks at any one time; after this period they begin, first, to lose their good

effects, and then to injure the coats of the stomach. They should also be used but once in the day, or at farthest twice. The best time for their use is in the morning, in a moderate dose, and combined with diluted mineral acid instead of spirits.

A few drops of diluted sulphuric acid added to about a wine-glassful of weak infusion or decoction of bark, or gentian, or quassia, and taken on rising, for a fortnight, will strengthen the stomach, provided the bowels be kept in regular action, so as to have one motion daily.—This is a golden rule.

The bitters should be left off for a time, and then resumed.

THE BEST TONIC BITTER FOR WEAK STOMACHS.

Take a few bits of gentian root, cut small, and about as much bark, and pour over them two quarts of of boiling water.

Let the infusion stand a few days.

INFLAMMATION OF THE BREAST, OR LUNGS.

THE inflammation of the breast, or a fluxion upon the breast, is an inflammation of the lungs, and most commonly of one only, and consequently on one side. The signs by which it is evident, are, a shivering of more or less continuance, during which the person affected is sometimes very restless and in great anguish, an essential and inseparable symptom; and which has helped us more than once to distinguish this disease with certainty, at the very instant of its invasion. Besides this, a considerable degree of heat succeeds the shivering, which, for a few ensuing hours, is often blended as it were, with some returns of chilliness. The pulse is quick, strong, moderately full, hard, and regular, when the distemper is not very violent; but small, soft, and irregular, when it is dangerous. There is also a sensation of pain, but rather light and tolerable, in one side of the breast; sometimes a kind of straitening or pressure on the heart; at other times pains thro' the whole body, especially along the reins; and some degree of oppression, at least very often; for sometimes it is but very inconsiderable. The patient finds a necessity of lying almost continually upon his back, being able to lie but very rarely upon either of his sides. Sometimes his cough is dry, and is then attended with the most pain; at other times it is accompanied with a spitting or hawking up, blended with more or less blood, and sometimes with sheer blood. There is also some pain, or at least a sensation of weight and heaviness, in the head; and frequently a propensity to rave. The face is almost continually flushed and red; though sometimes there is a degree of paleness and an air of astonishment, at the beginning of the disease, which portend no little danger. The lips, the tongue, the palate, and the skin, are all dry; the breath hot; the urine little and high coloured in the first stage; but more plentiful, less inflaming, and letting fall much sediment, afterwards. There is a frequent thirst, and sometimes an inclination to vomit; which imposing on the ignorant assistants, have often inclined them to give the patient a vomit, which is mortal, especially at this juncture. The heat becomes universal. The symptoms are heightened almost every night, during which the cough is more exasperated, and the spitting or expectoration is in less quantity. The best expectoration is of a middling consistence, neither too thin, nor too hard and tough, like those which are brought up at the termination of a cold; but rather more yellow, and mixed with a little blood, which gradually becomes still less, and commonly disappears entirely before the seventh day. Sometimes the inflammation ascends along the wind-pipe, and in some measure suffocates the patient, paining him considerably in swallowing, which makes him think he has a sore throat.

Whenever the disease is very violent at first, or increases to be such, the patient cannot draw his breath,

but when he sits up. The pulse becomes very small and very quick; the countenance livid, the tongue black; the eyes stare wildly; and he suffers inexpressible anguish, attended with incessant restlessness and agitation in his bed. One of his arms is sometimes affected with a sort of palsy; he raves without intermission, and can neither thoroughly wake nor sleep. The skin of his breast and of his neck is covered (especially in close sultry weather, and when the distemper is extremely violent) with livid spots, more or less remarkable, which should be called petechial ones, but are improperly termed purple. The natural strength becomes exhausted; the difficulty of breathing increases every moment: he sinks into a lethargy, and soon dies a terrible death in country places, by the very effects of the inflaming medicines they employ on such occasions. It has been known in fact, that the use of them has raised the distemper to such a height, that the heart has been rent open through the violence of its action, which the dissection of the body has demonstrated.

If the disease rush on at once, with a sudden and violent attack; if the horror, the cold and shivering, last many hours, and are followed with a nearly scorching degree of heat; if the brain be affected from the onset; if the patient have a small purging, attended with a tenesmus or straining to stool, often termed a *needing;* if he abhor the bed; if he either perspire excessively, or if his skin be extremely dry; if his natural manner and look be considerably changed; and if he spit up with much difficulty, the disease is extremely dangerous.

He must directly, from the first seizure in this state, be put upon a regimen, and his drink must never be given cold. It should either be barley water, whey, or cream of tartar water.

As long as the fever keeps up extremely violent, while the patient does not expectorate sufficiently, continues raving, has a violent headache, or raises up pure blood, a clyster of oil, water, and salts, must be given thrice, or at least twice, in twenty-four hours. However the principal remedy is bleeding. As soon as ever the preceding cold assault is over, sixteen ounces of blood must be taken away at once; and, if the patient be young and strong, twenty or even twenty-five. This plentiful bleeding gives him more ease than if twenty-four ounces had been drawn at three different times.

When the disease is circumstanced as described above, the first bleeding makes the patient easy for some hours; but the complaint returns; and to obviate its violence as much as possible, we must, except things promise extremely well, repeat the bleeding four hours after the first, taking again twelve ounces of blood: this often proves sufficient. But if, at about the expiration of eight or ten hours, it appears to kindle up again, it must be repeated a third, or even a fourth time. Yet, with the assistance of other proper remedies, we have seldom been obliged to bleed a fourth time, and have sometimes found the two first bleedings sufficient. A purgative of salts must now be given, and the bowels made free, or else all efforts will be vain; and on its operation, a large blister must be applied to the affected side.

If the disease have been of several days duration; if the fever be still very high; if there be a difficulty of breathing; if the patient do not expectorate at all, or bring up too much blood; without being too solicitous about the number of days that the disease has existed, the patient should be bled, though it were on the tenth.

In this, and in all other inflammatory diseases, the blood is in a very thick viscid state; and almost immediately on its being drawn, a white tough skin, somewhat like leather, is formed on its top, which most people have seen, and which is called the buffy coat, from its resemblance to buff leather. It is thought a promising appearance, when at each

bleeding it seems less hard, and less thick, than it was at the preceding ones; and this is very generally true, if the sick feel himself, at the same time, sensibly better; but whoever attends solely to the appearance of the blood, will find himself often deceived. It will happen in the most violent inflammations of the breast, that this crust is not formed, which is supposed to be a very unpromising sign. There are also in this respect, many odd appearances, which arise from the smallest circumstances; so that we must not regulate the repetitions of our bleeding solely by this crust; and in general we must not be over credulous in supposing that the appearances in the blood, received in the bason, can enable us to determine, with certainty, of its real state in the body.

When the sick person is in the advanced and worst stage of the disease, the bleeding is not only unattended with ease, but sometimes it is also pernicious, by the sudden weakness to which it reduces him. Generally in such a case all medicines and means are insignificant; and it is a very bad sign in this disease, when this discharge is not attended with ease and benefit to the sick; or when there are some circumstances which oblige us to be sparing of it.

The patient's legs should every day, for half an hour, be put into a bath of warm water, wrapping him up closely, that the cold may not check that perspiration which the bath promotes.

Every two hours he should take two spoonsful of the following mixture, which promotes all the discharges, and chiefly that of expectoration.

Take of water of acitate of ammonia, an ounce;
Of vinegar of squills, half an ounce;
Of antimonial wine, a drachm;
Of cold water, six ounces;
Of syrup, a little.
Mix.

When the oppression and straitness are considerable, and the cough dry, the patient may receive the vapour of boiling water, to which a little vinegar has been added. There are two ways of effecting this; either by placing below his face, after setting him up, a vessel filled with such boiling hot water, and covering the patient's head and the vessel with a linen cloth, that may inclose the steam; or else by holding before his mouth a sponge dipped in the same boiling liquor. This last method is the least effectual, but it fatigues the patient considerably less. When this bad symptom is extremely pressing, vinegar alone should be used without water; and the vapour of it has often saved patients, who seemed to have one foot in the grave; but it should be continued for several hours.

When the fever is extremely high, the sick should take every hour a cup of whey with five grains of nitre in it; but without diminishing, on this account, the usual quantity of his other drinks, which may be taken immediately after it.

As long as the patient shall grow worse, or only continue equally bad, the same medicines are to be repeated. But if on the third day (though it rarely happens so soon) or fourth, or fifth, the disease takes a more favourable turn; if the exasperation returns with less violence; the cough be less severe; the matter coughed up be less bloody: if respiration becomes easier; the head be less affected; the tongue not quite so dry; if the high colour of the urine abates, and its quantity be increased; it may be sufficient then to keep the patient carefully to his regimen, and to give him a clyster every evening. The exasperation that occurs the fourth day is often the highest.

This disease is most commonly terminated and carried off by expectoration, and often by urine, which on the seventh, the ninth, or the eleventh day, and sometimes on the days between them, begins to let fall a plentiful sediment or settling, of a pale red colour, and sometimes real pus or ripe matter. These discharges are succeeded by perspirations, which

are as serviceable then, as they were injurious at the beginning of the disease.

Some hours before these evacuations appear, there come on, and not seldom, some very alarming symptoms, such as great anguish, palpitations, some irregularity in the pulse, an increased oppression, convulsive motions, (this being what is called the crisis—the height, or turn of the distemper); but they are no ways dangerous, provided they do not occasion any improper treatment. These symptoms depend on the morbid and purulent matter, which being dislodged, circulates with the humours, and irritates different parts, until the discharge of it has fairly begun; after which all such symptoms disappear, and sleep generally ensues. However, we cannot too strongly insist on the necessity of great prudence in such circumstances. Sometimes it is the weakness of the patient, and at other times convulsions, or some other symptoms, that terrify the by-standers. If, which is most generally the case, the absurd practice of directing particular remedies for such accidents takes place, such as spirituous cordials, confections, &c. the consequence is, that nature being disturbed in her operations, the crisis or turn is not effected; the matter which should be discharged by stool, by urine, or by perspiration, is not discharged out of the body, but is thrown upon some internal or external part of it. Should it be on some inward part, the patient either dies at once, or another disease succeeds, more troublesome and incurable than the first. Should it be expelled to some outward part, the danger indeed is less; and as soon as ever such tumour appears, ripening poultices should be applied to bring it to a head, after which it should immediately be opened.

In order to prevent such unhappy consequences, great care must be taken, whenever such terrifying symptoms come on about the time of the crisis, to make no change in the diet, nor in the treatment of the patient; except in giving him a clyster, and applying every two hours a flannel, squeezed out of warm water, which may cover all the belly, and in a manner go round the body behind the reins. The quantity of his drink may also be increased a little; and that of his nourishment lessened, as long as the high and violent state continue.

We have not spoken of emetics or purges, they being directly contrary to the nature of this disease; anodynes or opiates, to procure sleep, are also highly improper. In a few cases, however, they may possibly be useful, but these cases are so very difficult to be sufficiently distinguished, that opiates should never be admitted in this disease, without the presence and advice of a physician. Many patients have been thrown into an incurable hectic state, by taking them improperly. When the disease is not received in a mortal degree, nor has been injudiciously treated, and proceeds in a benign regular manner, the patient may be called very well and safe by the fourteenth day; when he may, if he have an appetite, be put upon the diet of people who are recovering. But if he still retain an aversion to food, if his mouth be foul and furred, and he be sensible of some heaviness in his head, he should take the following

PURGATIVE DRAUGHT.

Take of infusion of senna, two ounces;
Of Epsom salts, two drachms:
Mix.

Bleedings from the nose occur sometimes naturally in this disease, even after repeated bleedings by art; these are very favourable, and are commonly attended with more ease and relief than artificial bleedings. Such voluntary discharges may sometimes be expected, when the patient is sensibly mended in many respects after the use of the lancet; and yet complains of a great pain in his head, accompanied with quick sparkling eyes, and a redness of the nose. Nothing should be done to stop these voluntary bleedings, since it would be very dangerous; for when nature has fulfilled her intention by them, they cease of themselves. At other times, but more rarely, the disease is

carried off by a natural purging, attended with moderate pain, and the discharge of bilious matter.

If the expectoration, or hawking up of matter, stop very suddenly, and is not speedily attended with some other evacuation, the oppression and anguish of the patient immediately return, and the danger is great and pressing. If the distemper, at this juncture, be not of many days standing; if the patient be a strong person; if he have not as yet been plentifully bled; if there be still some blood mixed with the humour he expectorates; or if the pulse be strong and hard; he should be bled immediately in the arm, constantly receive the steam of hot water and vinegar by the mouth, and drink plentifully of barley water, with lime juice and honey, something hotter than ordinary. But if his circumstances, after this suppression, be different from these just mentioned, instead of bleeding him, a blister should be applied to the back between the shoulders, and he should drink plentifully of elder-flower tea.

The causes which oftenest produce this suppression of his expectoration are, 1. A sharp and sudden cold air. 2. Too hot a one. 3. Over hot medicines. 4. Excessive perspiration. 5. A purge prematurely and injudicious timed. And 6. Some immoderate passion of the mind.

IMPOSTHUMES, OR ABSCESS IN THE LUNGS.

When the patient has not been sufficiently bled, or not soon enough; and even sometimes, which we have seen, when he has been greatly weakened by excessive bleeding—so that the discharges by stool, urine, expectoration, and perspiration, have not been sufficiently made; when these discharges have been confused by some other causes, or the disease has been injudiciously treated; then the vessels that have been inflamed do not unload themselves of the humours which stuff up and oppress them, but there happens in the substance of the affected lung, the same circumstance we see daily occur on the surface of the body. If an inflammatory tumour or swelling do not disperse itself, and disappears insensibly, it forms an imposthume or abscess. Thus exactly also in the inflamed lung, if the inflammation be not dissipated, it forms an abscess, which in that part, is called a vomica: and the matter of that abscess, like the external ones, remains often long inclosed in its sac or bag, without bursting open its membrane or case, and discharging the matter it contains.

If the inflammation were not very deeply seated in the inward substance of the diseased lung, but were extended to its surface, that is very near the ribs, the sac will burst on the surface of the lung; and the matter contained in it must be discharged into the cavity or hollowness of the breast, between the lung, the ribs, and the diaphragm or midriff, which is the membrane that divides the breast and the belly. But when the inflammation is considerably deeper, the imposthume bursts inside of the lung itself. If the orifice or opening be so small that but little can get out at once, or if the quantity of all the matter be inconsiderable, and the patient be at the same time pretty strong, he coughs up the matter, and is very sensibly relieved. But if this vomica be large, or if its orifice be wide, and it throws out a great quantity of matter at once, or if the patient be very weak, he dies the moment it bursts, and that sometimes when it is least expected. We have seen one patient so circumstanced expire, as he was conveying a spoonful of soup to his mouth. There was no present symptom in this case, whence a physician might suppose him likelier to die at that instant, than for some hours before. The pus or matter is commonly discharged through the mouth after death, and the body very soon becomes putrified.

We call that vomica which is not burst, an occult or hidden; and that which is, an evident or open one. It is of considerable importance to

treat exactly and clearly of this topic; as a great number of people die of these imposthumes, even without a suspicion of the cause of their death.

Whatever distemper is included within the breast of a living patient, is neither an object of the sight nor touch; whence these vomicas, these inward tumours, are so often unknown, and indeed unsuspected. The evacuations that were necessary for the cure, or sometimes for the prevention of them, have not taken place during the first fourteen days. At the end of this term, the patient, far from being cured, is not very considerably relieved; but on the contrary, the fever continues to be pretty high, with a pulse continually quick; in general soft and weak, though sometimes pretty hard, and often fluctuating, or as it were, waving. His breathing is still difficult and oppressed, with small cold shudderings from time to time; an exasperation of the fever; flushed cheeks, dry lips, and thirst.

The increase of these symptoms declares, that pus or matter is thoroughly formed; the cough then becomes more continual, being exasperated with the least motion; or as soon as ever the patient has taken any nourishment. He can repose only on the side affected. It often happens indeed, that he cannot lie down at all; but is obliged to be set up all day; sometimes even without daring to lean a little upon his loins, for fear of increasing the cough and oppression. He is unable to sleep, has a continual fever, and his pulse frequently intermits.

The fever is not only heightened every evening; but the smallest quantity of food, the gentlest motion, a little more than usual heat in the chamber, soup either a little too strong or a little too salt, increase the quickness of his pulse the moment they occur or are given. He is quite restless, has some short attacks of the most terrible anguish, accompanied and succeeded by sweatings on his breast, and from his whole countenance. He perspires sometimes the whole night; his urine is reddish, now frothy and at other times thick and oily. Sudden flushings, hot as fire, rise into his whole visage. The greater number of the sick are commonly sensible of a most disagreeable taste in their mouths; some of old strong cheese; others of rotten eggs; and others again of stinking meat, and fall greatly away. The thirst of some is unquenchable; their mouths and lips are parched; their voice is weak and hoarse; their eyes are hollow, with a kind of wildness in their looks.—They have a general disgust to all food; and if they should ask for some particular nourishment without seeing it, they reject it the moment it is brought them; and their strength at length seems wholly exhausted.

Besides these symptoms, a little inflation or bloatedness, as it were, is sometimes observed on the breast, towards the side affected; with an almost insensible change of colour. If the vomica be situated at the bottom of the affected lobe of the lungs, and in its internal part, that is, nearly in the middle of the breast, some puffiness or light swelling may be perceived in some bodies, by gently pressing the pit of their stomach; especially when the patient coughs. In short, according to the observations of a German physician, if one strike the open hand on the breast, covered only with a shirt, it retains in the spot, which is directly opposite to the vomica, a flat heavy sound, as if one struck a piece of flesh; while in striking on the other side it gives a clear loud sound, as from a drum. It is still to be doubted, however, whether this observation will generally hold true; and it would be hazardous to affirm there is no abscess in a breast, which does not return this heavy sound.

When a vomica is formed, as long as it is not emptied, all the symptoms we have already enumerated increase, and the vomica grows in size; the whole side of the lung affected sometimes becomes a bag or sac of matter. The sound side is compressed; and the patient dies

after dreadful anguish, with the lungs full of pus, and without having ever brought up any.

To avoid such fatal consequences, it is necessary to procure the rupture and discharge of this inward abscess, as soon as we are certain of its existence; and as it is safer it should break within the lobe affected, from whence it may be discharged by hawking up, than that it should burst and void itself into the cavity of the breast, we must endeavour, that this rupture may be effected within the internal substance of the lungs.

The most effectual methods to procure this are,

1. To make the patient continually receive by his mouth, the vapour of warm water.

2. When by this means that part of the abscess is softened, where we could wish the rupture of it to happen, the patient is to swallow a large quantity of the most emollient liquid; such as barley water, almond milk, light veal broth, or milk and water. By this means the stomach is kept always full; so that the resistance to the lungs being considerable on that side, the abscess and its contents will naturally be pressed towards the side of the wind-pipe, as it will meet with less resistance there. This fulness of the stomach will also incline the patient to cough, which may concur to produce a good effect.

3. Hence we should endeavour to make the patient cough, by making him smell some vinegar, or even snuff up a little; or by injecting into his throat, by the means of a small syringe, a little water or vinegar.

4. He should be advised to bawl out aloud, to read loud, or to laugh heartily; all which means contribute to burst open the abscess, as well as the following one.

5. He should be put into a cart or some other carriage; but not before he has drunk plentifully of such liquors as we have just mentioned: after which the shaking and jolting in the carriage have sometimes immediately procured that rupture or breaking of the abscess we wished for.

Some years since a country maid servant was left in a languishing condition after an inflammation of the breast, without any person's suspecting her ailment. This woman being put into a cart, that was sent for a load of hay, one of the wheels ran violently against a tree: she swooned away, and at the same time brought up a great quantity of digested matter. She continued to bring up more, which effectually cured her.

A Swiss officer, who served in Piedmont, had been in a languid state of health for some months, and returned home to set himself down as easily as he could, without conceiving any considerable hopes of recovery. Upon entering into his own country, by way of Mount Bernard, and being obliged to go some paces on foot, he fell down, and remained in a swoon above a quarter of an hour, during which time he threw up a large quantity of matter, and found himself that very moment greatly relieved. The preservation of his life was principally owing to this lucky fall.

Many persons afflicted with a vomica, faint away the very instant it breaks. Some sharp vinegar should be directly held to their nose. This small assistance is generally sufficient, where the bursting of it is not attended with such appearances as show it to be mortal, in which case every application is insignificant.

If the sick person be not extremely weak before the bursting of the abscess; if the matter be white, and well conditioned; if the fever abate after it; if the anguish, oppression, and perspirations terminate; if the cough be less violent; if the patient be sensibly easier in his situation or posture; if he recover his sleep and appetite; if his usual strength return; if the quantity he expectorates becomes daily and gradually less; and if his urine be apparently better; we may have room to hope, that by the assistance of

the remedies we shall immediately direct, he may be radically and completely cured.

But if, on the contrary, when his strength is exhausted before the bursting of the abscess; when the matter is too thin and transparent, brown, green, yellow, bloody, and of an offensive smell; if the pulse continue quick and weak; if the patient's appetite, strength, and sleep do not improve; there remains no hope of a cure, and the best medicines are ineffectual; nevertheless we ought to make some trial of them.

They consist of the following medicines and regulations.

1. Give every four hours a little barley or rice cream.

2. If the matter brought up be thick and viscid, so that it is very difficult to be loosened and discharged, give, every two hours, a table-spoonful of the following:

EXPECTORATING MIXTURE.

Take of syrup of squills, an ounce;
Of barley-water, four ounces;
Mix;

and between these two, let the patient take a little whey.

3. When the consistence of the matter is such, that there is no occasion for these medicines to promote the discharge of it, they must be omitted; though the same sort and quantity of food are to be continued, but with the addition of an equal quantity of milk; or, which would be still more beneficial, instead of this mixture, we should give the same quantity of new milk, taken from a good cow, which, in such a case, may compose the whole nourishment of the patient.

4. He should take, four times a day, beginning early in the morning, and at the distance of two hours, a table-spoonful of the decoction of bark. His common drink should be barley-water, or fresh water with a fourth part milk.

5. He should air and exercise every day on horseback, or in a carriage, according as his strength and his circumstances will allow him. But of all sorts of exercise, that on a horse is, beyond all comparison, the best, and the easiest to be procured by every body, provided the disease be not too far advanced; since in such a situation, any exercise, that was only a little violent, might prove pernicious.

The multitude seldom consider any thing as a remedy, except they swallow it. They have but little confidence in regimen, or any assistance in the way of diet, and consider riding on horseback as wholly useless to them. This is a dangerous mistake, of which we should be glad to undeceive them; since this assistance, which appears so insignificant to them, is probably the most effectual of any; it is that, in fact, without which they can scarcely expect a cure in the highest degree of this disease; it is that, which perhaps alone may recover them, provided they take no improper food. In brief, it is considered, and with reason, as the real specific for this disease.

The influence of the air is of more importance in this disorder than in any others, for which reason great care should be taken to admit the best into the patient's chamber. For this purpose it should be often ventilated, or have an admission of fresh air; be sweetened from time to time, though very lightly, by sprinkling about a little good vinegar; and in the season it should be plentifully supplied with agreeable herbs, flowers, and fruits. Should the sick be unfortunately situated, and confined in an unwholesome air, there can be but little prospect of curing him without altering it.

Out of many persons affected with these diseases, some have been cured by taking nothing whatsoever but butter-milk; others by melons and cucumbers only; and others again by summer fruits of every sort. Nevertheless, as such cases are singular, and have been but few, we advise the patient to observe the method we have directed here, as the surest.

It is sufficient if he have a stool once in two days.

When the discharge of matter from the breast diminishes, and the patient

is perceptibly mended in every respect, it is a proof that the wound in the abscess is deterged or clean, and that it is disposed to heal up gradually. If the suppuration or discharge continue in great quantity; if it seem but of an indifferent consistence; if the fever return every evening; it may be apprehended that the wound, instead of healing, may degenerate into an ulcer, which must prove a most embarrassing consequence. Under such a circumstance, the patient would fall into a confirmed hectic, and die after some months sickness.

We are not acquainted with any better remedy in such a dangerous case, than a perseverance in these already directed, and especially in moderate exercise on horseback. But the safest way is to consult a physician, who may examine and consider if there be not some particular circumstance combined with the disease, that proves an obstacle to the cure of it.

It happens sometimes, that the vomica is entirely cleansed, the expectoration is entirely finished or drained off, the patient seems well, and thinks himself completely cured; but soon after, the uneasiness, oppression, cough, and fever, are renewed, because the membrane or bag of the vomica fills again: again it empties itself; the patient expectorates for some days, and seems to recover. After some time, however, the same thing is repeated; and this vicissitude, or succession of moderate and of bad health, often continues for some months, and even some years. This happens when the vomica is emptied, and is gradually deterged, so that its membranes or sides approach or touch each other; but without cicatrizing, or healing firmly; and then there drops or leaks in, very gradually, fresh matter. For a few days this seems no ways to incommode the patient; but as soon as a certain quantity is accumulated, he is visited again with some of the former symptoms, till another evacuation ensues. People thus circumstanced in this disease, sometimes appear to enjoy a tolerable share of health. It may be considered as a kind of internal issue, which empties and cleanses itself from time to time; somewhat frequently in some constitutions, more slowly in others; and under which some may attain a good middling age. When it arrives, however, at a very considerable duration, it proves incurable. In its earliest state, it gives way sometimes to a milk diet, to riding on horseback, and to grapes, and such like fruit.

Some may be surprised, that in treating of an abscess of the lungs, and of the hectic, (which is a consequence of it,) we say nothing of those remedies, commonly termed balsamics, and so frequently employed in them; for instance, turpentines, balsam of Peru, of Mecca, frankincense, mastic, myrrh, storax, and balsam of sulphur. We shall, however, say briefly here, (because it is equally our design to destroy the prejudices of the people, in favour of improper medicines, and to establish the reputation of good ones,) that we never in such cases make use of these medicines; because we are convinced that their operation is generally hurtful in such cases; that they protract the cure, and often change a slight disorder into an incurable disease. They are incapable of perfect digestion, they obstruct the finest vessels of the lungs, whose obstructions we should endeavour to remove; and evidently occasion, except their dose be extremely small, heat and oppression. We have very often seen to a demonstration, that pills compounded of myrrh, turpentine, and balsam of Peru, have, an hour after they were swallowed, occasioned a tumult and agitation in the pulse, high flushings, thirst, and oppression. In short, it is demonstrable to every unprejudiced person, that these remedies, as they have been called, are truly hurtful in this case; and we heartily wish people may be disabused with respect to them; and that they may lose that reputation they have so unhappily obtained.

Many persons, very capable in othey respects,daily make use of them in these diseases; such, however, cannot fail of disusing them as soon as

they shall have observed their effects, abstracted from the virtues of the other medicines to which they add them, and which mitigate the danger of them. A foreign surgeon, living at Orbe, attempted the cure of a hectic with melted bacon, (much the same with hog's lard,) which aggravated the disease. This advice seemed absurd, and it certainly was so; nevertheless, the balsamics ordered in such cases are probably not more digestible than fat bacon.

If the vomica, instead of breaking within the substance of the lungs affected, should break without it, the pus must be received into the cavity of the breast. We know when that has happened, by the sensation or feeling of the patient, who perceives an uncommon kind of movement, generally accompanied with a fainting. The oppression and anguish cease at once; the fever abates; the cough, however, commonly continues, though with less violence, and without any expectoration. But this seeming amendment is of short duration, since from the daily augmentation of the matter, and its growing more acrid or sharp, the lungs become oppressed, irritated, and eroded. The difficulty of breathing, heat, thirst, wakefulness, distaste, and deafness return, with many other symptoms unnecessary to be enumerated, and especially with frequent sinkings and weakness. The patient should be confined to his regimen, to retard the increase of the disease as much as possible; notwithstanding, no other effectual remedy remains, but that of opening the breast between two of the ribs, to discharge the matter, and to stop the disorder it occasions. This is called the operation for the empyema. We shall not describe it, as it should not be undertaken but by experienced surgeons. We would only observe, that it is not painful nor terrifying; and that if it be delayed too long, it proves useless, and the patient dies miserably.

We may daily see external inflammations turn gangrenous, or mortify. The same thing occurs in the lungs when the fever is excessive, and the inflammation, either in its own nature extremely violent, or raised to such a height by hot medicines. Intolerable anguish, extreme weakness, frequent faintings, coldness of the extremities, a livid and fœtid thin humour brought up instead of concocted spitting, and sometimes blackish stripes on the breast, sufficiently distinguish this miserable state.

An inflammation of the lungs may also become hard, when it forms what we call a scirrhus, which is a very hard tumour, indolent or unpainful. This is known to occur when the disease has not terminated in any of those manners we have represented; and where, though the fever and the other symptoms disappear, the respiration remains always a little oppressed; the patient still retains a troublesome sensation in one side of his breast; and has from time to time a dry cough, which increases after exercise, and after eating. This malady is but seldom cured, though some persons attacked with it last many years. They should avoid overheating, colds, and every thing that may produce them.

Observe in all inflammations of the lungs, that the sheet-anchor, after all, is bleeding and blistering the sides and lungs.

THE LAW

RESPECTING REGULAR AND IRREGULAR MEDICAL PRACTITIONERS, QUACK DOCTORS, AND VENDORS OF MEDICINE.

COMMUNICATED BY DR. VILLERS.

No person can practise, vend, or administer medicine, either directly or indirectly, by law, without a licence from the Apothecaries' company. In the reign of Henry VIII. when the practice of medicine was engrossed by illiterate monks and empirics, the celebrated Linacre, in order to redress this grievance, procured letters patent from the king, which were confirmed by Parliament, to establish a corporate society of

physicians in the city of London, and by virtue of which authority, the college, as a corporation, now enjoys the privilege of admitting all qualified persons whatever to the practice of physic, as well as that of supervising all medical prescriptions: and it is expressly declared that no person shall be admitted to exercise the science of physic in any of the dioceses in England, out of London, till such time he be examined touching his qualifications thereon, by the president and three of the elects, and have letters testimonial from them of his possessing such qualification to practise and exercise the science of physic, unless he be a graduate of Oxford or Cambridge, or possess a diploma from any of the Scotch universities, (being in his majesty's dominions) who, as such, by his very degree, has a lawful right to practise all over England, Scotland, and Wales, and every other part of his majesty's dominions, except within seven miles of London, without being obliged to take any licence from the bishop, or subjecting himself to any inconvenience from the London "College of Physicians." And by the 14th and 15th Henry VIII. chap. 5. sec. 3. further provisions were made on this subject: but by the 34th and 35th Henry VIII. chap. 8. the legislature allowed persons, being the king's subjects, to practise in external applications, but not to administer internal medicines, except in three cases, viz. stone, strangury, and ague: then came the act of the 55th George III. entitled "an act for the better regulation of apothecaries," and self-dubbed physicians throughout England and Wales; by which act, all persons are prohibited from practising medicine, without being duly examined therein, except such practitioners absolutely in practice prior to August, 1815.

G. H. V.

SYMPTOMS OF HYDROPHOBIA IN DOGS AND MEN.

Men may contract the particular and raging symptom, which is very generally peculiar to, and has thence been supposed characteristical of, this disease, from this most common cause, and that even without any bite; but this happens very rarely indeed. It is properly a distemper belonging to the canine genus, consisting of the three species of dogs, wolves, and foxes, to whom only it seems inherent and natural; scarcely ever arising in other animals, without its being inflicted by them. Whenever there occurs one of them who breeds it, he bites others, and thus the poison, the cause of this terrible disease, is diffused. Other animals besides the canine species, and men themselves being exposed to this accident, do sometimes contract the disease in all its rage and horror; though it is not to be supposed, that this is always an unfailing consequence.

If a dog who used to be lively and active, become all at once mopish and morose; if he have an aversion to eat; a particular and unusual look about his eyes; a restlessless, which appears from his continually running to and fro; we may be apprehensive he is likely to prove mad; at which very instant he ought to be tied up securely, that it may be in our power to destroy him as soon as the distemper is evident.—Perhaps it might be even still safer to kill him at once.

Whenever the malady is certain, the symptoms heighten pretty soon. His aversion to food, but especially to drink, grows stronger. He no longer seems to know his master; the sound of his voice changes; he suffers no person to handle or approach him; and bites those who attempt it. He quits his ordinary habitation, marching on with his head and tail hanging downwards; his tongue hanging half out, and covered with foam or slaver, which indeed not seldom happens indifferently to all dogs. Other dogs scent him, not seldom at a considerable distance, and fly him with an air of horror, which is a certain indication of his disease. Sometimes he contents himself with biting only those who happen to be near him; while at other

times, becoming more enraged, he springs to the right and left on all men and animals about him. He hurries away, with manifest dread, from whatever waters occur to him. At length he falls down, spent and exhausted; sometimes he rises up again, and drags himself on for a little time, commonly dying on the the third, or at the latest on the fourth day after the manifest appearance of the disease, and sometimes even sooner.

When a person is bit by such a dog, the wound commonly heals up as readily as if it were not in the least poisonous; but after the expiration of a longer or shorter term, from three weeks to three months, but most commonly in about six weeks, the person bitten begins to perceive, in the spot that was lacerated, a certain dull obtuse pain. The scar of it swells, inflames, bursts open, and exudes a sharp, fœtid, and sanious or somewhat bloody humour. At the same time the patient becomes sad and melancholy; he feels a kind of indifference, insensibility, and general numbness; an almost incessant coldness; a difficulty of breathing; a continual anguish; and pains in his bowels. His pulse is weak and irregular; his sleep restless, turbid, and confused with ravings, with startings up in surprise, and with terrible frights. His discharges by stool are often much altered and irregular; and thin cold sweats appear at very short intervals. Sometimes there is also a slight pain or uneasiness in the throat.—Such is the first degree of this disease, and it was called by some physicians the dumb rage, or madness.

Its second degree, the confirmed or downright madness, is attended with the following symptoms: the patient is afflicted with a very violent thirst, and a pain in drinking; and very soon after this he avoids all drink, but particularly water; and within some few hours after, he even abhors it. This horror becomes so violent, that the bringing water near his lips, or into his sight, the very name of it, or of any other drink—the sight of objects, which, from their transparency, have any resemblance of water, such as a looking-glass, &c. afflicts him with extreme anguish, and sometimes even with convulsions. They continue, however, still to swallow (though not without great difficulty) a little meat or bread, and sometimes a little soup. Some even get down the liquid medicines that are prescribed them, provided there be no appearance of water in them, or that water be not mentioned to them at the same time.—Their urine becomes thick and high-coloured, and sometimes there is a suppression or stoppage of it. The voice either grows hoarse, or is almost entirely abolished: but the reports of persons barking like dogs, are ridiculous and superstitious fictions, void of any foundation; as well as many other fables that have been blended with the history of this distemper. The barking of dogs, however, is very disagreeable to them. They are troubled with short deliriums or ravings, which are sometimes mixed with fury. It is at such times that they spit all around them; that they attempt also to bite, and sometimes unhappily effect it. Their looks are fixed as it were, and somewhat furious, and their visage frequently red. It is very common for these miserable patients to be sensible of the approach of their raging fit, and to conjure the bystanders to be upon their guard. Many of them never have an inclination to bite. The increasing anguish and pain they feel become inexpressible; they earnestly wish for death; and some of them have even destroyed themselves, when they had the means of effecting it.

It is with the spittle, and the spittle only, that this dreadful poison unites itself. And here it may be observed,

1. That if the wounds have been made through any of the patient's clothes, they are less dangerous than those inflicted immediately on the naked skin.

2. That animals who abound in wool, or have very thick hair, are often preserved from the mortal im-

pression of the poison; because in these various circumstances, the clothes, the hair, or the wool have wiped or even dried up the slaver of their teeth.

3. The bites inflicted by an infected animal, very soon after he has bitten many others, are less dangerous than the former bites, because their slaver is lessened or exhausted.

4. If the bites happen in the face or in the neck, the danger is greater, and the operation of the venom is quicker; by reason the spittle of the person so bit is sooner infected.

5. The higher the degree of the disease is advanced, the bites become proportionably more dangerous.

From what we have just mentioned here, it may be discerned, why, of many who have been bitten by the same sufferer, some have been infected with this dreadful distemper, and others not.

Many remedies have been mentioned for this dreadful malady; but, we fear, none to be depended on, except cutting out the part bitten.

A false and dangerous prejudice has prevailed with regard to the bites from dogs, which is, that if a dog who had bit any person, without being mad at the time of his biting, should become mad afterwards, the person so formerly bitten, would prove mad too at the same time. Such a notion is full as absurd as it would be to affirm that if two persons had slept in the same bed, and that one of them should take the itch, the small-pox, or any other contagious disease, ten or twelve years afterwards, that the other should also be infected with that he took, and at the same time too.

Of two circumstances, whenever a person is bit, one must certainly be; either the dog which gives the bite is about to be mad himself, in which case this would be evident in a few days, and then it must be said the person was bitten by a mad dog; or else, that the dog was absolutely sound, having neither conceived, or bred in himself, nor received from] without, the principle of madness: in which last case we ask any man in his senses, if he could communicate it. No person—no thing imparts what it has not. This false and crude notion excites those who are possessed with it to a dangerous action: they exercise that liberty the laws unhappily allow them of killing the dog; by which means they are left uncertain of his state, and of their own chance. This is a dreadful uncertainty, and may be attended with embarrassing and troublesome consequences, independent of the poison itself. The most reasonable conduct would be to secure and observe the dog very closely, in order to know certainly whether he is or is not mad.

It is not necessary to represent the horror, barbarity, and guilt of that cruel practice, which prevailed not long since, of suffocating persons in the height of this disease with the bed-clothes, or between mattresses. It is now prohibited in most countries; and doubtless will be punished, or at least ought to be, even in those where as yet it is not.

Another cruelty, of which we hope to see no repeated instance, is that of abandoning those miserable patients to themselves, without the least resource or assistance: a most detestable custom even in those times when there was not the least hope of saving them; and still more criminal in our days, when they may be recovered effectually. We do again affirm, that it is not very often these afflicted patients are disposed to bite; and that even when they are, they are afraid of doing it; and request the bystanders to keep out of their reach: so that no danger is incurred: where there is any, it may easily be avoided by a few precautions.

COMFORT FOR THE TRAVELLER.

"Your other task, ye menial train, forbear—
"Now wash the stranger, and the bed prepare." Odys. b. xix.

TRAVELLERS have often informed us of the refreshment to be derived from warm bathing. After being wearied with exertion, exposed to the sultry heats, the pores being stopped by the matter of perspiration and dust, and

the body oppressed with fatigue—the warm bath gives to the traveller fresh vigour and spirits, relaxes the tired and stiffened muscles, and imparts tone to the nerves.

Indeed, nothing is so capable of removing that aching of the limbs, induced by excessive travelling, as fomenting with warm water, or the bath.

Thus, amongst the Orientals especially, their guests, in addition to other acts of hospitality, have a vase of water brought for bathing; and in ancient times, this service to strangers was not disdained even by the daughters of princes: hence this practice, as described by Homer—

"The last fair branch of the Nestorean line,
"Sweet Polycasté, took the pleasing toil,
"To bathe the prince, and pour the fragrant oil."

ODYS. B. III.

Mr. Bruce, the Abyssinian traveller, was wont to practise warm bathing in his journeys in Egypt, and has lauded the efficacy and salubrity of the custom.*

Dr. Willich says, "the Russians, notwithstanding their ignorance and rusticity of manners, excel the more refined French and Germans, both in a delicate sensibility of cleanliness, and in the practical use of the bath. I lately read of a foreign gentleman, who, during his travels in Russia, had hired one of the natives as his groom or postillion. After having travelled for several days in very sultry weather, the semi-barbarian upon his knees requested his employer to grant him leave of absence for two or three hours, to refresh himself with the luxury of a bath, which to him was indispensable, and the want which he had long felt. The peasants in that country possess a refinement of sense with respect to the body, with which the most elegant ladies in other countries seem totally unacquainted."

* Bruce's Travels to discover the Source of the Nile.

Perhaps the alternate use of warm and cold bathing may be desirable for those who encounter the hardships of travelling—the former to refresh them after fatigue and weariness, and cold bathing to protect them from infectious diseases, and to give vigour for enterprize. Of the usefulness of the latter custom we will here give the opinion of that respectable traveller Dr. Clarke, who thus advises the habit:—

"We approached in an oblique direction the Lazovai, now augmented to a considerable river. Finding the water clear and the current rapid, we had the opportunity of bathing, and I recommend the practice to all travellers, as essential to the preservation of health."

The celebrated traveller Acerbi also extols the practice on similar considerations.

We think that if the inns throughout the country were to be each provided with a warm bath, it would pay the proprietors well, and certainly afford the traveller a luxury and safeguard, which he may now seek for in vain.

THE TOILETTE OF FLORA.

NO. IV.

PREPARATION TO REMOVE SUPERFLUOUS HAIR.

TAKE polypody of the oak, cut into very small pieces, and put a quantity into a glass cucurbite. Pour on this as much Lisbon or French white wine as will rise an inch above the ingredients, and digest in a hot-water or vapour bath for twenty-four hours; then distil off the liquor, by the heat of boiling water, till the whole have come over.

Apply this to the part where the redundant hair grows, by means of a linen cloth, which should be kept on during the night.

The distilled water of the leaves and roots of celandine is said to have a similar effect; and likewise oil of walnuts.

GRECIAN WATER, TO DARKEN THE HAIR.

Dissolve two drachms of nitrate of silver in six ounces of water, and add two drachms of gum water.

This is apt to turn the hair purple when long used. Its price in the shops is 3s. 6d. although the expence altogether is not 3d. per bottle. —The juice of walnut-shells is better.

WATER TO STRENGTHEN THE HAIR.

Take the tops of hemp as soon as it begins to appear above ground, and infuse them twenty-four hours in water. Dip the hair-brush or teeth of the comb in this fluid, and it will improve the hair.

BALSAM FOR CHAPPED LIPS OR HANDS.

Take two or three tea-spoonsful of clarified honey;
Add a few drops of lavender-water;
Mix, and anoint the parts frequently.

For the hands, it should be used at night, and gloves should be worn in bed; next morning, wash them with milk.

DERANGEMENTS OF THE LIVER AND BILIARY ORGANS.

THE magnitude of the liver evinces its importance in the animal economy. Its office is chiefly to secrete bile for the purpose of digestion; but various are the disorders which have their origin from a deficient, irregular, or excessive action of the liver, and from the excess or vitiated quality of the bile extracted from the blood. From these sources arise jaundice; bilious cholics; inflammations, enlargements, and torpor of the liver; hypochondriasis; and other painful maladies.

The general symptoms observable in a morbid state of this organ, and that shew a depraved state of the biliary juices, are sluggishness and a sense of languor; a yellow tinge of the skin and of the eye; a diminished perspiration; loss of appetite; the tongue coated with a yellow mucus; nausea or vomiting; flushings of the face and burnings of the palms; saffron-coloured urine; and discoloured evacuations from the bowels. Pain and tenderness or swelling on the right side, below the ribs, are also often experienced, with various sympathetic and fugitive pains.

We believe, that when the perspiration is copious and abundant, hepatic disease is not likely to exist; but when the emunctories of the skin are closed, when the orifices of the surface, that are destined to discharge the superfluities of the body, are clogged, then is the liver especially overwhelmed with the juices that retire from the surface.

These reciprocal affections have been well illustrated by some modern authors, especially by Dr. James Johnson, whose experience in the diseases incident to those who visit the tropics, where this vicarious action is strikingly exemplified, has enabled him to give a perspicuous elucidation of these interesting sympathies.

The causes that disturb the regularity of the circulating system, and occasion a preponderance in some important organ, are numerous: a high temperature of the air is one of the principal and most evident.

We shall not attempt, in this place, to explain its *modus operandi*, nor do we think that it has hitherto been clearly explained; but it is notorious, that during hot weather, or in tropical latitudes, the liver becomes engorged with blood, and a strong tendency to inflammation exits; an excess of highly stimulating bile is projected into the alimentary system, and nature, to relieve herself of the irritating and offending matter, often excites plentiful evacuations of the redundant bile from the stomach and bowels. Thus the mind regains vivacity and serenity, and the despondency and gloom, that harrassed the melancholic patient, are dissolved and annihilated.

People who return from warm climates, suffering from biliary irregularities, should frequently use the

warm bath; and the Cheltenham waters will also contribute towards their relief by their laxative and tonic effects. Mercurial medicines are held in deserved estimation in these disorders, and should be persevered in while using the warm bath. Five grains of blue pill may be taken twice a week, at night, and a dose of Cheltenham salts in the morning; or the following

ANTIBILIOUS PILLS.

Take of extract of aloes, half a drachm;
Of powder of jalap, seven grains;
Of calomel, fourteen grains;
Of Spanish soap, fourteen grains;
Of syrup of buckthorn, enough to make a mass.

To be well incorporated, and formed into fifteen pills: two or three for a dose.

A torpid and sluggish state of the liver may also exist, when the intestines, deprived of their natural stimulus,* partake of the torpor of that organ, and the secretions become stagnant and corrupted. This state is frequently attended with dejection and lowness of spirits, to which the ancients gave the appropriate name of melancholy, intimating the cause to be a depraved state of the biliary secretion.

Cold and moisture tend materially to induce derangements of the functions of the liver; and the passions of the mind exert a vast influence on the operations of this organ.—Hence we can explain the sudden appearance of jaundice, in many instances, where the depressing passions of anxiety and fear have been acting through the medium of the sensorium.

From what has been said, it may be easily discerned, that a most effectual mode of checking this inordinate or irregular action of the liver, is to augment the discharges from the skin, and remove the impediments to a natural and plentiful perspiration.

Experience has confirmed the great propriety and advantage of the warm sea bath in most cases of bilious derangement. The contracted vessels of the skin are relaxed by it, and the healthful excretions are restored.

A heated and constricted state of the skin is relieved materially by the warm bath.

The case of Primigenes of Mitylene, as related by Galen, will be recognized as similar in kind to the feelings of many a sufferer from disordered liver. "Primigenes," says Galen, "was compelled to use the warm bath daily, or he would suffer from fever. Experience shews us effects, but reason and reflection point out the causes. Why did this man need this frequent use of the bath? I found from the burning of his skin, from his studious life, and by his never sweating, that a free perspiration was needed, but the thickness of his skin stopped the perspiration, and he required the warm bath to relax the skin and to cleanse the pores."

* Dr. Saunders on the liver.

DISEASES OF ARTIZANS.

NO. 4.

OF THE DISEASES OF THOSE WHO DIG METALLIC ORES.

THE diseases to which metal-diggers and other such artificers are liable, are difficulty of breathing, phthisicy cough, apoplexy, palsy, cachexy or universal bad habit of body, swellings of the feet, falling out of the teeth, ulcers in the gums, pains and tremblings of the joints,—in fact, their lungs, brain, and nervous system are affected; but especially the lungs, which inhale the mineral particles along with the air, and so receive the first injury; after which, the same vaporous particles, admitted within the course of circulation, and mingled with the blood, corrupt and taint the whole body. Hence it is, that those who dig in the mines are in general short lived; and it is well known, that the women who marry them, have an opportunity of matching with several husbands.—Agricola asserts, that near the mines of the Carpathian Mountains, women

have been known to marry no less than *seven* husbands.

This, then, has been the wretched state of miners in all ages; and even in our own time, they are not in a much better state; for, suppose they fed clean, and had good things about them, yet such is the baneful influence of the dark and impure places in which they draw their breath, that their looks resemble those of the fabled inhabitants of the shades below. In fact, let the mineral they dig be what it may, they are still liable to violent diseases, which often elude all manner of cure, even when the most proper medicines are prescribed.

But as great profit arises from mines, and as the use of metals is highly necessary to all the arts, we are bound in duty to endeavour to preserve the lives of the workmen by investigating their diseases, and proposing cautions and remedies for the removal of them.

Some mines are moist, having water standing at the bottom of them; others are dry. Now, in the moist mines, where the water stagnates, the legs of the workmen are exposed to colds and damps; and by the stench of the gross and poisonous vapour which exhales from thence, especially when pieces of rock or stone fall into the water, in some cases the workmen are suffocated, and many cases are recorded of their falling down dead. The fire and gun-powder, likewise, which is used to split the rocks, stirs up or gives liberty to the pestilential or mephitic exhalations of the mineral matter.

But no exhalation is so absolutely pernicious, as that which arises from the quicksilver mines. Fallopius assures us, that in the quicksilver mines scarcely any of the workmen reach the third year: and Etmuller affirms, that in the space of four months they are seized with trembling in the joints, palsy, and vertigo.

In the Transactions of the Royal Society, there is a letter from Venice, dated April, 1665, importing, that in some quicksilver mines in the Forum Julii, none of the workmen were able to hold out above six hours at a time. In the same letter we have an account of one, who having worked in these mines for half a year, was so impregnated with mercury, that if he put a piece of brass into his mouth, or handled it with his fingers, it speedily became white.

L. Tozzius says, that these workmen are apt to be troubled with asthmas, and with the falling out of their teeth; for which reason the refiners of quicksilver are wont to avoid receiving the smoke in their mouths, by turning their backs to the wind.

Van Helmont describes a certain kind of asthma, between the dry and the moist species, which, he says, is common among the diggers and refiners of metal, the minters of money, and such other workmen, occasioned by a metallic gas sucked in along with the air.

Sennertus was informed by a physician who practised near the mercureal mines of Idria and Mysnia, in Germany, that in the dissected bodies of the workmen, he and his colleagues found the very metal which they had been employed to dig.

In the vitriol mines, the workmen are also frequently seized with difficulty of breathing. Galen describes a cave in Cyprus, out of which the workmen fetched water for making this article; and acquaints us further, that he went down almost a furlong into the cave, and there saw drops of green water falling into the lake. He adds, that he inhaled a suffocating and hardly tolerable smell; that he saw the workmen entirely naked fetching out the water with great dispatch, and running speedily back again.—Now, nothing is more pernicious to the lungs than the gas which arises from vitriol: in large quantities it suffocates, and in small, it thickens the lining membrane of the windpipe, and ulcerates it.

Not only the internal parts of the body, but likewise the external, are greatly injured, particularly the hands, legs, eyes, and throat. Agricola in-

forms us, that the hands and legs are galled and corroded to the very bone in the mines of Mysnia, where the black pompholix, or brassy ore is found.

But mines are also much infested by living plagues, which torture the poor workmen to the last degree:—these are certain little animals, resembling spiders, which haunt the silver mines chiefly; and when the poor miners inadvertently sit down upon them, they are dreadfully stung by them.

Miners, particularly in Germany, have an idea deeply rooted in their minds, that they are liable to be haunted by demons and spirits, which can only be driven away by fasting and prayer. In the Hanoverian mines, the diggers have certainly frequent falls, which they say are occasioned by devils, which they term *Knauff-kriegen.* After such falls, they often die in the course of three or four days; but it is a general opinion among them, that if they live longer than that time, they will recover.

These subterranean evil spirits are gravely mentioned by Father Rircher; and likewise in the Transactions of the Royal Society of England, for Nov. 1666; but of course, as to the reality of such pests, it is impossible to give the least credit. Such falls and their consequences may be easily accounted for on natural grounds; such as a fullness of the blood-vessels of the head causing apoplexy; which, as well as other diseases, we know is frequently induced by long confinement in mephitic air.

Though the nature of metals and minerals are pretty sufficiently laid open by the industry of modern chemists, yet there are so many inexplicable mixtures and combinations of minerals in the bowels of the earth, that it is almost impossible to determine what specific hurt or injury is peculiar to this or that mine, and how they affect one part more than another. So that we can only say in general, that the confined air, taken in at the mouth for the purpose of respiration, is impregnated with particles very injurious to the lungs and brain, which joining with the mass of blood, produce all the evils the workmen complain of.

It is therefore the duty of the overseers of mines, and of such physicians as have that province allotted them, to make all the contrivances they can for the safety of the workmen, and since they cannot remove the occasional cause, to take such measures, that the workmen may be as comfortable as possible.

The confined air of the mines being tainted and polluted, partly by the vapours of the mineral matter and the exhalations from the workmen's bodies, and partly by the smoke of the lights that are kept under ground, the overseers of mines are accustomed to draw out the gross and stagnated air, and let in that which is more pure and fresh, by means of ventilators communicating with the bottom of the mines through passages under ground. They also generally guard the hands and legs of the workmen with gloves and boots. The ancients likewise took great care of the safety and health of their mine-diggers; for Julius Pollux asserts, that they used to cover them with bags or sacks; they placed loose bladders upon their mouths, to keep out the pernicious air; and these bladders were so contrived, that they could see through them, as Pliny tells us of the polishers of Minium. At present, especially in the arsenic mines, glass vizards or masks are used, which is a safer and neater contrivance.

Father Rircher prescribes various remedies for the diseases which affect miners. He bestows great encomiums on a liquor distilled from oil of tartar, laudanum, or else the solid opium, given in the quantity of three drops. By way of preventive, he advises the use of fat broths, butter, and generous wines. For those who were already affected, he recommended a balsam made from nettles; and advised that their food should be seasoned with common salt and nitre.

For corrosion and soreness of the throat, mouth, and gums, he advised gargles of milk and honey, in order to wash out the noxious parti-

cles which lodged in those parts.—Collyria, or washes for the sore eyes of the miners, he advises to be made of vinegar and sugar of lead; in the quantity of ten grains of the latter, to half an ounce of the former, diluted with two ounces of water.

DAILY DRINK FOR THOSE WHO WORK IN MINES.

Take of cream of tartar, an ounce;
Of orange juice, half a pint;
Of honey, two ounces;
Of spring water, two quarts:
A gobletful to be taken every day.

DISTURBED SLEEP.

INDIGESTION is the prolific source of a vast variety of complaints: amongst the most incommoding and distressing of which, is incubus or night-mare. Those who are blessed with sound repose, and to whom sleep is "a sweet oblivious antidote to weariness and anxiety," can form little conception of the commotion, and of the turmoil, that those undergo who are liable to the visitations of this complaint. It is not experienced in all its horrors by every one, but manifests itself in twitchings, startings, and fantastic dreams. When it is violent, the imaginary conflict is terrific. The subject of it is seized with a dread that seems to unnerve him, either accompanied by frightful spectra or without—his heart beats strongly—he labours for breath—seems conscious of impending danger, but is totally unable to make resistance—he believes the scene to be real—attempts to scream, which he frequently does, and by the effort dissipates the delusion, or falls again to sleep, and the haggard scene is renewed. Many reported instances of apparitions and supernatural appearances have had their origin, questionless, from the grisly forms arising to the imagination in this state of indisposition, and which have been confidently believed to be realities.

Dr. Whytt found a glass of brandy after supper a great preventive of this affection; but we are of opinion, that avoiding plentiful suppers will be the surest mode of obtaining exemption from the attacks of this formidable enemy of our repose. The tepid sea bath, and the general plan of treatment recommended for indigestion, will be exceedingly useful in this complaint; and for an occasional antidote to its violence, we may recommend the following

DRAUGHT FOR DISTURBED SLEEP.

Take of fœtid spirit of ammonia, thirty drops;
Of peppermint water, one ounce;
Of tincture of cardamom, two drachms.

This will occasion a little stimulus in the stomach, that will disperse flatulence, which greatly contributes to the disorder, and also corrects any predominant acidity.

FLUOR ALBUS, OR THE WHITES.

A VAST number of females suffer from this disease in England, more than in any other country, except Flanders and Holland. It is a discharge which wastes them away, and occasions the whole train of nervous disorders, and even death. It is occasioned by any thing which relaxes the general habit, such as slops of tea, gin and water, excessive venery, want of due attention to washing, &c. The French women are more free from this disease than the English, because they attend to partial bathing or washing more particularly; and the Indian women, the Hindoos, are seldom afflicted with it, which is no doubt owing to the frequent use of cold bathing; for they are always dabbling in the rivers.

The Dutch and Flemish women contract this disease from the debilitating habit of sitting over boxes of lighted charcoal. It is a pity that our fair countrywomen will not more extensively adopt the modes of chamber bathing, so common in France: this is certainly a point in which

their French rivals surpass them. The custom, however, is now becoming more general than it was.

CURE.

To obtain a cure in this complaint, every thing which restores the general tone of the constitution, should be observed; gentle exercise—early rising—wholesome diet—pleasant company, &c. &c. and the following medicines taken every day.

TONIC MIXTURE FOR FLUOR ALBUS.

Take of decoction of bark, a pint;
Of infusion of gentian, half a pint;
Of diluted sulphuric acid, two drachms;
Mix.—A table spoonful every morning on rising, first having well washed the mouth.

At twelve o'clock the same day take from five to ten grains of rhubarb in half a glass of port wine, and use the following

INJECTION FOR FLUOR ALBUS.

Take of sulphate of zinc, two drachms;
Of common water a pint:
Mix.

Let this be injected into the vagina three times a day, first having bathed the hips, &c. in cold water.

ANOTHER INJECTION.

Take of alum, three drachms;
Of water, a pint:—Mix.

This plan, persisted in for a month or two, will in most cases succeed.

ERUPTIONS OF THE SKIN.

The great connection that exists between the skin and the alimentary organs, has a sympathy with the liver; this is seen in those that are habitually intemperate in the use of stimuli, and especially in ardent spirits. The skin of the face becomes florid and turgid with blood, and the nose particularly is often covered with eruptions even to deformity; and in such cases there is usually some irregularity at least in the functions of the liver. Cutaneous eruptions probably depend upon some acrimony that is deposited under the skin, causing an irritation. The perspiration is in most cases restrained and insufficient.

The tepid bath we think to be most serviceable in the removal of these complaints, (we mean those which are chronic,) and we are convinced that it is one of the most effectual cosmetics that can be used. Salt water, from the irritation that is produced on the skin, does not, for this purpose, seem so well adapted as fresh water; but where the eruptions have been confined to the face and neck, we have found the tepid sea bath more decidedly useful than any other.

The Harrowgate waters, and those of Barege, have obtained a deserved celebrity for the aid they lend in the cure of diseases of the skin.

DISEASES OF THE THROAT.

QUINSEY.

The throat is subject to many diseases; and one of the most frequent and most dangerous is that inflammation of it, commonly termed a quinsey. This, in effect, is a disease of the same nature with an inflammation of the breast; but as it occurs in a different part, the symptoms of course are very different. They also vary, and not a little, according to the different parts of the throat which are inflamed.

The general symptoms of an inflammation of the throat are the shivering, the subsequent heat, the fever, the head-ache, high-coloured urine, a considerable difficulty, and sometimes even an impossibility, of swallowing any thing whatsoever. But if the nearest part of the glottis, that is, of the entrance into the windpipe, or conduit through which we breathe, are attacked, breathing becomes excessively difficult; the patient is sensible of extreme anguish, and great approaches to suffocation; the disease

is then extended to the glottis, to the body of the windpipe, and even to the substance of the lungs, whence it becomes speedily fatal.

The inflammation of the other parts is attended with less danger; and this danger becomes still less, as the disease is more extended to the outward and superficial parts. When the inflammation is general, and seizes all the internal parts of the throat, and particularly the tonsils, or almonds, as they are called; the uvula, or process of the palate; and the basis, or remotest deepest part of the tongue, it is one of the most dangerous and dreadful maladies. The face is then swelled up and inflamed; the whole inside of the throat is in the same condition; the patient can get nothing down; he breathes with pain and anguish, which concur with a stuffing or obstruction in his brain, to throw him into a kind of furious delirium or raving; his tongue is bloated, and is extended out of his mouth; his nostrils are dilated, as though it were to assist him in his breathing; the whole neck, even to the breast is excessively tumified or swelled up; the pulse is very quick, very weak, and often intermits; the miserable patient is deprived of all his strength, and commonly dies the second or third day.

Sometimes the disease shifts from the internal to the external parts; the skin of the neck and breast grows very red, and becomes painful, but the patient finds himself better.

At other times the disorder quits the throat, but is transferred to the brain or upon the lungs. Both these translations of it are mortal, when the best advice and assistance cannot be immediately procured; and it must be acknowledged, that even the best are often ineffectual.

The most usual kind of this disease is that which affects only the tonsils, and the palate, or rather its process, the uvula, commonly called the palate. It generally first invades one of the tonsils, which becomes enlarged, red, and painful, and does not allow the afflicted to swallow but with great pain. Sometimes the disorder is confined to one side; but most commonly it is extended to the uvula, and thence to the other tonsil. If it be of a mild kind, the tonsil first affected is generally better when the second is attacked. Whenever they are both attacked at once, the pain and anguish of the patient are very considerable; he cannot swallow but with great difficulty, and the torment of this is so vehement, that we have seen women affected with convulsions as often as they endeavoured to swallow their spittle, or any other liquid. They continue sometimes, even for several hours, unable the take any thing whatever. All the upper inward part of the mouth, the bottom of the palate, and the descending part of the tongue, become lightly red or inflamed.

Many persons suffering under this disease find more difficulty in swallowing liquids than solids; by reason that liquids require a greater action of some part of the muscles, in order to their being properly directed into their conduit or channel. The swallowing of the spittle is attended with more uneasiness than that of other liquids, because it is a little more thick and viscid, and flows down with less ease. This difficulty of swallowing, joined to the quantity thence accumulated, produces that almost continual hawking up, which oppresses some patients so much the more, as the inside of their cheeks, their whole tongue, and their lips are often galled, and even fleed, as it were. This also prevents their sleeping, which, however, seems no considerable evil; sleep being sometimes but of little service in diseases attended with a fever; and we have often seen patients, who thought their throats almost entirely well in the evening, and yet they found them very bad after a few hours sleep.

The fever in this species of the disease is sometimes very high; and the shivering often endures for many hours. It is succeeded by considerable heat and a violent head-ache, which is sometimes attended with a drowsiness. It is commonly rather high in the evening, though

sometimes but inconsiderable, and by the morning perhaps there is none at all.

A slight invasion of this disease of the throat often precedes the shivering; though most commonly it does not become manifest till after it, and at the same time when the heat comes on.

The neck is somtimes a little inflated or puffed up; and many of the sick complain of a smart pain in the ear of that side which is most affected. We have but very seldom observed that they had it in both.

The inflammation either disappears by degrees, or an abscess is formed in the part which was chiefly affected. It has never happened, at least within our knowledge, that this sort of the disease, prudently treated, has ever terminated either in a mortification or a scirrhus: but we have been a witness to either of these supervening, when perspiration was extorted in the beginning of it by hot medicines.

It is also very rare to meet with highly dangerous translations of this disease upon the lungs.

TREATMENT OF QUINSEY.

The treatment of the quinsey, as well as of all other inflammatory diseases, is the same with that of an inflammation of the breast.

The sick is immediately to be put upon a cool regimen; bleeding must be repeated four or five times within a few hours; and sometimes there is a necessity to recur still oftener to it. When it assaults the patient in the most vehement degree, all medicines—all means, are very generally ineffectual: they should be tried, however. We should give as much as can be taken of cream of tartar drinks; but as the quantity they are able to swallow is often very inconsiderable, a clyster of salts and oil, with barley water, should be repeated every three hours; and their legs should be put into a bath of warm water thrice a day.

Cupping glasses, with scarification, applied about the neck, after bleeding twice or thrice, have often been experienced to be highly useful. In the most desperate cases, when the neck is excessively swelled, one or two deep incisions, made with a razor, on this external tumour, have sometimes saved a patient's life.

When the inflammation runs high, we must have frequent recourse to bleeding; and it should never be omitted, when the pulse is very perceptibly hard and full. It is of the utmost consequence to do it instantly; since it is the only means to prevent the abscess, which forms very readily, if the bleeding have been neglected only for a few hours. Sometimes it is necessary to repeat it a second time, but very rarely a third.

This disease is frequently so gentle and mild, as to be cured without bleeding by means of much good management. But as many are not masters of their own time, nor in such an easy situation as to be properly attended, they ought, without the least hesitation, to be bled directly; which is sometimes sufficient to remove the complaint; especially if, after bleeding, the patient drinks plentifully of cream of tartar whey.

In this light degree of the disease, it may suffice to bathe the legs, and also to receive a clyster, once a day; the first to be used in the morning, and the last in the evening. Besides the general remedies against inflammations, a few particular ones, calculated precisely for this disease, may be applied in each kind or degree of it. The best are,

1. A blister to the throat; emollient poultices laid over the whole neck; and the application of hartshorn and sweet oil with flannel.

2. Of the gargles, a great variety may be prepared, of much the same properties, and of equal efficacy.—Those we direct here are what have succeeded best; and they are very simple.

GARGLE FOR THE THROAT.

Take of alum, two drachms;
Of rose water, six ounces;
Of honey, half an ounce:—Mix.

ANOTHER.

Take of decoction of bark, strained, seven ounces;
Of honey, half an ounce;
Of lemon juice, an ounce:
Mix.

EMOLLIENT GARGLE.

Take of barley water, six ounces;
Of honey, half an ounce;
Of green tea, a cupful:
Mix.

3. The steam of hot water should be used five or six times a day; a poultice should constantly be kept on, and often renewed; and the patient should frequently gargle.

There are some persons, besides children, who cannot gargle themselves: and in fact the pain occasioned by it makes it the more difficult. In such a case, instead of gargling, the gargles may be injected with a small syringe. The injection reaches further than gargling, and often causes the patient to hawk up a considerable quantity of glairy matter, (which has grown still thicker towards the bottom of his throat,) to his sensible relief. This injection should be often repeated. The little hollowed pipes of elder wood, which all the children in the country can make, or a quill may be conveniently employed for this purpose. The patient should breathe out, rather than inspire, during the injection.

Whenever the disease terminates without suppuration, the fever, the head-ache, the heat in the throat, and the pain in swallowing, begin to abate from the fourth day, sometimes from the third, often only from the fifth; and from such period that abatement increases at a great rate; so that at the end of two, three, or four days, on the sixth, seventh, or eighth, the patient is entirely well. Some few, however, continue to feel a slight degree of pain, and that only on one side, four or five days longer, but without a fever, or any considerable uneasiness.

Sometimes the fever and the other symptoms abate, after the bleeding and other remedies, without any subsequent amendment in the throat, or any signs of suppuration. In such cases, we must chiefly persist in the gargles and the steams; and where an experienced and dexterous surgeon can be procured, it were proper he should scarify the inflamed tonsils. These discharge, in such cases, a moderate quantity of blood; and this relieves very readily as many as make use of it.

If the inflammation be in no ways disposed to disperse, so that an abscess be forming, which almost ever happens, if it has not been obviated at the invasion of the disease, then the symptoms attending the fever continue, though raging a little less after the fourth day; the throat continues red, but of a less florid and lively redness; a pain also continues, though less acute, accompanied sometimes with pulsations, and at other times entirely without any, of which it is proper to take notice; the pulse commonly grown a little softer; and on the fifth or sixth day, and sometimes sooner, the abscess is ready to break. This may be discovered by the appearance of a small white and soft tumour, when the mouth is open, which commonly appears about the centre of the inflammation. It bursts of itself; or should it not, it must be opened. This is effected by strongly securing a lancet to one end of a small stick or handle, and enveloping, or wrapping up the whole blade of it, except the point and the length of one fourth or third of an inch, in some folds of soft linen; after which the abscess is pierced with the point of this lancet. The instant it is opened, the mouth is filled with the discharge of a quantity of pus, of the most intolerable savour and smell. The patient should gargle himself, after the discharge of it, with the following

CLEANSING GARGLE.

Take of sulphurated acid, two drachms;
Of rose-water, eight ounces:
Mix.

It is surprising sometimes to see the quantity of matter discharged from

this impostumation. In general there is but one, though sometimes we have seen two of them.

It happens, and not seldom, that the matter is not collected exactly in the place where the inflammation appeared, but in some less exposed and less visible place; whence a facility of swallowing is almost entirely restored, the fever abates, the patient sleeps, he imagines he is cured, and that no inconvenience remains, but such as ordinarily occurs in the earliest stage of recovery. A person who is neither a physician nor a surgeon, may easily deceive himself when in this state; but the following signs may enable him to discover that there is an abscess: viz. a certain inquietude and general uneasiness; a pain throughout the mouth; some shiverings from time to time; frequently sharp, but short and transient, heat; a pulse moderately soft, but not in a natural state; a sensation of thickness and heaviness in the tongue; small white eruptions on the gums, on the inside of the cheek, on the inside and outside of the lips, and a disagreeable taste and odour.

In such cases, milk or warm water should frequently be retained in the mouth; the vapour of hot water should be conveyed into it, and emollient cataplasms may be applied about the neck. All these means concur to the softening and breaking of the abscess. The finger may also be introduced to feel for its situation, and when discovered, the surgeon may easily open it. Warm water may be injected pretty forcibly, either by the mouth or the nostrils; this sometimes occasions a kind of cough, or certain efforts which tend to break it, and which we have seen happen even from laughing. As to the rest, the patient should not be too anxious or uneasy about the event.

The glairy matter with which the throat is overcharged, and the very inflammation of that part, which, from its irritation, produces the same effect as the introduction of a finger into it, occasions some patients to complain of an incessant propensity to vomit. We must be upon our guard here, and not suppose that this heart-sickness, as some have called it, results from a disorder of or a load within the stomach, and that it requires a vomit for its removal. The giving one here would often prove a very unfortunate mistake. It might, in a high inflammation, farther aggravate it; or we might be obliged (even during the operation of the vomit) to bleed, in order to lessen the violence of the inflammation. Such imprudence, with its bad consequences, often leaves the patient, even after the disease is cured, in a state of languor and weakness for a considerable time. Nevertheless, there are some particular disorders of the throat, attended with a fever, in which a vomit may be prudently given. But this can only be when there is no inflammation, or after it is dispersed, and there still remains some putrid matter in the first passages.

THE MUMPS.

We often see a disorder different from these of the throat, of which we have just treated; though, like these, attended with a difficulty of swallowing. It is termed, in French, the *orillons*, and often the *ourles* or swelled ears, and by us the *mumps*. It is an over-fulness and obstruction of those glands and their tubes, which are to furnish the saliva or spittle; and particularly of the two large glands which lie between the ear and the jaw, which are called the parotides; and of two under the jaw, called the maxillares. All these being considerably swelled in this disease, do not only produce a great difficulty of swallowing, but also prevent the mouth from opening; as an attempt to do it is attended with violent pain. Young children are much more liable to this disease than grown persons. Being seldom attended with a fever, there is no occasion for medicines: it is sufficient to defend the part affected from the external air; to apply some proper poultice over them; to lessen the quantity of their food considerably, denying them flesh and wine; but indulging them plentifully in some light warm liquid, to

dilute their humours and restore perspiration.

Some years since, there was an astonishing number of persons attacked with disorders of the throat, of two different kinds. Some of them were seized with that common sort which we have already described. Without adding any thing more particularly, in respect to this species, it happened frequently to grown persons, who were perfectly cured by the method already recited. The other species, on which we shall be more particular in this place, (because we know they have abounded in some villages, and were very fatal,) invaded grown persons also; but especially children, from the age of one year, and even under that, to the age of twelve or thirteen.

The first symptoms were the same with those of the common quinsey, such as the shivering, the ensuing heat or fever, dejection, and a complaint of the throat; but the following symptoms distinguished these from the common inflammatory quinseys.

1. The sick had often something of a cough, and a little oppression.

2. The pulse was quicker, but less hard, and less strong, than usually happens in diseases of the throat.

3. The patients were afflicted with a sharp, stinging, and dry heat, and with great restlessness.

4. They expectorated less than is usual in a common quinsey; and their tongues were extremely dry.

5. Though they had some pain in swallowing, this was not the principal complaint, and they could drink sufficiently.

6. The swelling and redness of the tonsils, of the palate, and of its process, were not considerable; but the parotid and maxillary glands, and especially the former, being extremely swelled and inflamed, the pain they chiefly complained of was this outward one.

7. When the disease proved considerably dangerous, the whole neck swelled; and sometimes even the veins, which return the blood from the brain, being overladen, as it were, the patient had some degree of drowsiness, and of a delirium or raving.

8. The paroxysms or returns of the fever were considerably irregular.

9. The urine appeared to be less inflamed than in other diseases of the throat.

10. Bleeding and other medicines did not relieve them, so soon as in the other kind; and the disease itself continued a longer time.

11. It did not terminate in a suppuration like other quinseys, but sometimes the tonsils were ulcerated.

12. Almost every child, and indeed a great many of the grown persons, assaulted with this disease, threw out, either on the first day, or on some succeeding one, within the first six days, a certain efflorescence or eruption, resembling the measles considerably in some, but of a less lively colour, and without any elevation or rising above the skin. It appeared first in the face, next in the arms, and descended to the legs, thighs, and trunk; disappearing gradually at the end of two or three days, in the same order it had observed in breaking out. A few others (we have seen but five instances of it) suffered the most grievous symptoms before the eruption; and threw out the genuine purpura, or white miliary eruption.

13. As soon as these efflorescences or eruptions appeared, the patients generally found themselves better.—That last mentioned, continued four, five, or six days, and frequently went off by perspiration. Such as had not these ebullitions, which was the case of many adults, were not cured without very plentiful perspiration towards the termination of the disease: those which occurred at the invasion of it being certainly unprofitable, and always hurtful.

14. We have seen some patients, in whom the complaint of the throat disappeared entirely, without either eruption or perspiration; but such still remained in very great inquietude and anguish, with a quick and small pulse. We ordered them a sudorific drink, which being succeeded by the

eruption or by perspiration, they found themselves sensibly relieved.

15. But whether the patients had or had not these external rednesses or eruptions, every one of them parted with their cuticle or scarf-skin, which fell off in large scales, from the whole surface of the body: so great was the acrimony or sharpness of that matter, which was to be discharged through the skin.

16. A great number suffered a singular alteration in their voices, different from that which occurs in common quinseys, the insides of their nostrils being extremely dry.

17. The patients recovered with more difficulty after this, than after the common quinseys: and if they were negligent or irregular, during their recovery, particularly if they exposed themselves too soon to the cold, a relapse ensued, or some different symptoms, such as a stuffing with oppression, a swelling of the stomach, windy swellings in different parts, weakness, loathings, ulcerations behind the ears, and something of a cough or hoarseness.

18. We have been sent for to children, and also to some young folks, who, at the end of several weeks, had been taken with a general inflammation of the whole body, attended with great oppression, and a considerable abatement of their urine, which was also high coloured and turbid, and without separation. They seemed also in a very singular state of indifference with respect to any object or circumstance. We recovered every one of them entirely by blisters, and small doses of tartar emetic. The first operation of this medicine was to vomit them: to this succeeded a discharge by urine, and at last a plentiful perspiration, which completed the cure. Two patients only, of a bad constitution, who were a little ricketty, and disposed to glandular scirrhosity or knottiness, relapsed and died, after being recovered of the disease itself for some days.

We have bled some adult persons, and made use of the cooling regimen, as long as there was an evident inflammation: it was necessary after this to unload the first passages; and at last to excite moderate perspiration.

In some subjects there did not appear any inflammatory symptom; and the distemper was solely owing to a load of putrid matter in the first passages. Some patients also discharged worms. In such cases we never bled; but the vomit had an excellent effect at the very onset of the disease; it produced a perceivable abatement of all the symptoms; perspiration ensued very kindly and naturally, and the patient recovered entirely a few hours after.

There were some places, where no symptom or character of inflammation appeared; and in which cases it was necessary to omit bleeding, that having been attended with bad consequences.

We never directed infants to be bled. After opening the first passages, blisters and diluting drinks proved their only remedies. A simple infusion of elder-flowers, and those of the lime tree, has done great service to those who drank plentifully of it.

We are sensible that a great number of persons have died with a prodigious inflation or swelling of the neck; and among others a young woman of twenty years of age, who had taken nothing but hot sweating medicines and red wine, and died the fourth day, with violent suffocations, and a profuse discharge of blood from the nose. Of the great number we have seen in person, only two died. One was a little girl of ten months old. She had an efflorescence which very suddenly disappeared: at this time we were called in; but the inflammation had retreated to the breast, and rendered her death inevitable. The other was a strong youth from sixteen to seventeen years old, whose sudden attack of the disease manifested, from the beginning, a violent degree of it.—Nevertheless, the symptoms subsiding, and the fever nearly terminating, the perspirations which approached would probably have saved him: but he

would not suffer them to have their course, continually stripping himself quite naked. The inflammation was immediately repelled upon the lungs, and destroyed him within the space of thirty hours. We never saw a person die with so dry a skin. The vomit affected him very little upwards, and brought on a purging. His own bad conduct seems to have been the occasion of his death; and may this serve as one example of it!

We chose to expatiate on this disease, which agrees as much with that of putrid fevers, (of which we shall speak hereafter,) as with that of the inflammatory diseases we have already considered; since in some subjects the complaint of the throat has evidently been a symptom of a putrid fever, rather than of the chiefly apparent disease, a quinsey.

Disorders of the throat are, with respect to particular persons, an habitual disease, returning every year, and sometimes oftener than once a year. They may be prevented by defending the head and the neck from the cold; especially after being heated by any violent exercise, or even by singing loud and long, which may be considered as an extraordinary exercise of some of the parts affected in this disease.

MATERIALS NECESSARY FOR A SICK CHAMBER.

A TABLE, on which to place the different articles:—let it be furnished with proper and necessary liquids, plates, basins, spoons, &c.

A lamp with a water-panikin, to keep any thing wanted warm in the night.

Barley-water, toast-and-water, lemonade, raspberry-vinegar and water —all cooling and pleasant drinks.

Oranges.—These may be squeezed, and the juice passed through a muslin or a lawn sieve. All drinks should be strained, it prevents bits of skin, &c. getting into the patient's mouth.

Tea and sugar—fine moist is the best.

A bottle of vinegar, water, brandy, and port wine.

Change of linen for the patient.

A waste-pan.

Towels and glass-cloth.

Two loose pillows.

Plenty of pocket handkerchiefs.

A bottle of salts—very valuable in cases of fainting.

A bottle of eau de cologne.

Paper, pen, and ink.

A roll of flannel, and another of fine rag.

A pin-cushion full of pins.

A goose-quill to place through the door as a signal when the patient is asleep.

A wooden poker to prevent noise in stirring the fire.

A tub with damp sand, for the purpose of throwing under the grate to prevent the noise occasioned from falling of cinders.

Coke instead of coal—it gives less light and smoke.

A pair of list slippers.

Wax candle and shade.

Matches and phosphoric box.

Large scissars.

Small ditto for snipping blisters, &c.

A pipe and bladder, or injection syringe.

Sweet oil.

Needles and thread.

POISONING BY DEADLY NIGHTSHADE.

DEADLY NIGHTSHADE is a weed which grows in strong and waste grounds. It flowers in June, and bears, in the latter end of August and September, fine tempting berries of a shining black colour, and not unlike black cherries. The taste of these berries is sweet, and therefore the oftener become fatal to children. The following case, which occurred last week at Winchester, and treated with success by one of the Editors of this publication, will strongly point out the necessity of attending to children who go abroad in the fields; and also, we hope, it may urge those, upon

whose grounds the poison grows, to have the obnoxious weed destroyed.

CASE OF MADNESS, PRODUCED BY DEADLY NIGHTSHADE.

On the 18th of this month (August), the child of a corporal belonging to the 70th regiment, about seven years of age, wandered into the great ditch of the castle or palace at Winchester; and there meeting with the berries of the deadly nightshade, eat a considerable quantity. This was in the evening. The child returned to the barracks, went to bed, and remained in an apparent sleep for an hour, when he started up and became outrageous. In this state he remained, held down by his parents, until one o'clock, when, finding him becoming worse, they brought him to the surgeon of the garrison. The symptoms he then laboured under were the following:—

A peculiar wildness of the countenance, great terror, screaming, convulsions, the pupils of the eyes dilated to the utmost, no sight, inability to swallow, and horror of fluid. On administering a little tartar emetic, and a warm laxative injection by the anus, the boy vomited eight or ten of the berries above mentioned, half masticated, at four o'clock in the morning. At ten o'clock he swallowed a little tea, which was forced down his throat, and another emetic of tartarite of antimony.

The whole of the above symptoms continued, except the raging, and the boy appeared quite an idiot, not sensible of any thing whatever, and often called out that a great fly was biting the top of his head. His head was immediately shaved, and a large blister applied; he was put to bed, and bound down with a sheet; and honey and water, with vinegar and water, tea, and cream of tartar water frequently and alternately given to him. At twelve o'clock he swallowed voluntarily, and his bowels became very free. The aberration of intellect, dilatation of the pupils, and want of sight continued all the day, but at night his senses began to return — he knew those about him, but had no recollection of circumstances. He slept during the night, and the next day became perfectly sensible: the pupils recovered their power, and no bad symptom remained.

Boerhaave mentions, that one of these berries is sufficient to kill, but this case proves the reverse.

VARIOUS APPEARANCES OF THE BODY, WHICH POINT OUT DISEASE.

FROM A WORK ENTITLED "SYMPTOMATOLOGY."

A YELLOW tinge of the eye indicates some derangement of the organs subservient to the secretion of the bile.

A dark blue or unclean appearance of the eye, is a symptom of diseased spleen. I discovered the certainty of this symptom in consequence of having an opportunity of seeing a number of men, who returned from the unfortunate expedition to Walcheren. In all of them this peculiar colour of the cornea was strikingly obvious. The bodies of almost all who died were examined, and in every case the spleen was found diseased and enlarged, in some cases weighing not less than nine pounds.

When the cornea appears of a pearly whiteness, accompanied with an expanded pupil, hollowness of the temples, the teeth generally sound but with a blueish tinge, a tendency to phthisis pulmonalis may always be suspected.

A peculiar bright sparkling appearance of the eyes, together with hurried and irregular motions of these organs, denote the approach of delirium or insanity. The presence of the latter disease is peculiarly indicated, according to the observations of Dr. Haslam, by a laxity of the integuments covering the occiput.

A dull prominent eye betokens a propensity to apoplexy, as does also enlargement and fulness of the tongue. In advanced life, this complaint is frequently produced by venous plethora: in such cases, blood-letting

is by no means always indicated as a remedy.

Distended pupils indicate diminished irritability.

Thickness of the eye-lids and alæ nasi are symptomatic of scrofulous diathesis. When this fulness of the eyelids is accompanied with redness on the margins, caused by inflammation of the ducts of the sebacious glands, it generally betokens a propensity to over-indulgence in fermented or distilled liquors. It is frequently of importance, in relation to the treatment of diseases, to ascertain whether the fact be so, without making any direct inquries, which in such cases are very apt to give umbrage, especially to female patients. The truth may often be detected by indirect queries; such as, whether they are fond of tea. The habit of indulging in spirituous potations impairs the inclination for the weaker beverage. The Chinese have a proverb to this effect,—"The man that does not love tea, covets rack." Even the particular kind of intoxicating liquor, to which a person is addicted, may frequently be surmised from the physiognomy. Indulgence in vinous potations produces turgidity of the eyes, and a dark red, inclining to purple, hue of the complexion.—Beer, a yellow bloated countenance, enlargement of the abdomen, and slowness of muscular action;—well exemplified in the general condition of the draymen of London. Gin gives a leaden colour, deadness of the eye, emaciation, depression of spirits, and diminution of muscular power. Brandy produces a peculiar ferocity of temper.

I have been enabled to detect a secret attachment to the use of opium, (a habit daily gaining ground in this country) from a peculiar flaccid greasy state of the skin, and a singular intolerance of light.

Colica pictonum (painters' cholic) is attended with a peculiar wasting of the muscles of the ball of the thumb.

Itching at the point of the urethra is frequently symptomatic of stone in the bladder.

SEPTENARY PERIODS OF LIFE.

COPIED FROM A WORK BY THE CELEBRATED STAHL.

"A SEVEN months child will live. If a child breathe freely the seventh hour after birth, it will survive. The seventh day, the remains of the navel string drop off. At twice seven days a child notices the light. At thrice seven, observes objects, and follows them with the eyes. At seven months the teeth begin to appear. At twice seven months, begins to walk. At thrice seven months, begins to utter words. At four times seven months, walks alone. At seven years the teeth are renewed. At twice seven years the beard appears. At three times seven years the body attains full growth. At four times seven, life is in perfection, and till five times seven continues so. At six times seven, the strength and health begin to fail. At seven times seven, the mind has attained maturity. Ten times seven is the full age of man; after which period life in general is only trouble and vexation."

Blumenbach observes, that a large proportion of persons who attain old age, die in their 84th year, $=12 \times 7$.

THE TOILETTE OF FLORA.

NO. V.

ANODYNE EYE-WATER,

To wash the eyes with on rising every morning.

Take of rose-water, half a pint;
Of tincture of opium, two dr.
Of sulphate of zinc, ten grains;
Of tincture of myrrh, one dr.
Mix.

EYE-WATER FOR REDNESS OF THE EYE-LIDS, OR WATERY EYES.

Take of rose-water and cold spring water, each half a pint;
Of sugar of lead, three drachms;
Of alum, one drachm;
Mix; and wash the lids of the eyes well with it twice or thrice a day.

TO DYE THE HAIR FLAXEN.

Take a quart of lye, prepared from the ashes of vine twigs, briony, celandine roots, and turmeric, of each half an ounce;
Of saffron and lilly roots, each two drachms;
Of flowers of mullein, yellow stechas, broom, and St. John's wort, each a drachm;
Boil them together, and strain off the liquor clear.

Frequently wash the hair with this fluid, and it will change it, say the books, in a little time, to a beautiful flaxen colour. We merely repeat the recipe, but do not pledge ourselves to the efficacy of it, never having seen it tried.

OIL TO SUPPLE THE JOINTS.

Take of oil of almonds, four ounces;
Of camphor, two drachms;
Rub the camphor down with oil, first dissolving it with spirits of wine; then strain it off.

Add to this two drachms of the oil of rosemary.

CHOKING FROM SUBSTANCES STOPPING IN THE THROAT.

THE food we take descends from the mouth through a very straight passage or channel, called the œsophagus, (the gullet,) which going parallel with the spine or backbone, joins to or terminates at the stomach.

It happens sometimes that different bodies are stopped in this channel, without being able either to descend or to return up again; whether this difficulty arises from their being too large, or whether it be owing to their having such angles or points, as by penetrating into, and adhering to, the sides of this membranous canal, absolutely prevent the usual action and motion of it.

Very dangerous symptoms arise from this stoppage, which are frequently attended with a most acute pain in the part; and at other times, with a very incommodious, rather than painful sensation; sometimes an ineffectual commotion at or rising of the stomach, attended with great anguish; and if the stoppage be so circumstanced, that the glottis is closed, or the wind-pipe compressed, a dreadful suffocation is the consequence: the patient cannot breathe, the lungs are quite distended, and the blood being unable to return from the head, the countenance becomes first red, then livid; the neck swells, the oppression increases, and the poor sufferer speedily dies.

When the patient's breathing is not stopped, nor greatly oppressed, if the passage be not entirely blocked up, and he can swallow something, he lives very easy for a few days, and then his case becomes a particular disorder of the œsophagus or gullet. But if the passage be absolutely closed, and the obstruction cannot be removed for many days, a terrible death is the consequence.

The danger of such cases does not depend so much on the nature of the obstructing substance, as on its size, with regard to that of the passage of the part where it stops, and of the manner in which it forms the obstruction; and frequently the very food may occasion death; while substances less adapted to deglutition are not attended with any violent consequences, though swallowed.

A child of six days old swallowed a comfit or sugar-plum, which stuck in the passage, and instantly killed it.

A grown person perceived that a bit of mutton had stopped in the passage; not to alarm any body he arose from table: a few minutes afterwards, on looking where he might be gone, he was found dead. Another was choked by a bit of cake; a third by a piece of the skin of a ham; and a fourth by an egg, which he swallowed whole in a bravado.

A child was killed by a chesnut swallowed whole. Another died suddenly, choked (which is always the circumstance, when they die instantly after such accidents) by a pear

which he had tossed up, and catched in his mouth. A woman was choked with another pear. A piece of a sinew continued eight days in the passage, so that it prevented the patient from getting down any thing else; at the expiration of that time it fell into the stomach, being loosened by by its putridity; the patient, notwithstanding, died soon after, being killed by the inflammation, gangrene, and weakness it had occasioned. Unhappily there occur but too many instances of this sort, of which it is unnecessary to cite more.

Whenever any substance is thus detained in the gullet, there are two ways of removing it; that is, either by extracting it, or pushing it down. The safest and most certain way is always to extract or draw it out, but this is not always the easiest: and as the efforts made for this purpose greatly fatigue the patient, and are sometimes attended with grievous consequences; therefore, if the occasion is extremely urging, it may be eligible to thrust it down, if that be easier, and if there be no danger from the reception of the obstructing body into the stomach.

The substances which may be pushed down without danger are all common nourishing ones, as bread, meat, cakes, fruit, morsels of meat, and even skin of bacon. It is only very large morsels of particular aliments, that prove very difficult to digest; yet even such are rarely attended with any fatality.

The substances we should endeavour to extract or draw out, though it be more painful and less easy than to push them down, are all those, whose consequences might be highly dangerous, or even mortal, if swallowed. Such are all totally indigestible bodies, as cork, linen rags, large fruit stones, bones, wood, glass, stones, metals; and more especially if any further danger may be superadded to that of its indigestibility, from the shape (whether rough, sharp, pointed, or angular,) of the substance swallowed. Wherefore we should chiefly endeavour to extract pins, needles, fish-bones, other pointed fragments of bones, bits of glass, scissars, rings, or buckles.

Nevertheless it has happened, that every one of these substances have at one time or another been swallowed, and the most usual consequences of them are violent pains of the stomach and in the intestines; inflammations, suppurations, abscesses, a slow fever, gangrene, iliac passion; external abscesses, through which the bodies swallowed down have been discharged; and frequently, after a long train of maladies, a dreadful death.

When such substances have not passed in too deep, we should endeavour to extract them with our fingers, which often succeeds. If they be lower, we should make use of nippers or small forceps; of which surgeons are provided with different sorts. Those which smokers carry about them might be very convenient for such purposes; and in case of necessity they might be made very readily out of two bits of wood. But this attempt to extract rarely succeeds, if the substance have descended far into the œsophagus, and if it be of a flexible nature, which exactly applies itself to and fills up the cavity or channel of the gullet.

If the fingers and the nippers fail, or cannot be duly applied, crotchets, a kind of hooks, must be employed.

Such may be made at once with a strong iron wire, crooked at the end. It must be introduced in the flat way, and for the better conducting of it, there should be another curve or hook at the end it is held by, to serve as a kind of handle to it, which has this farther use, that it may be secured by a string tied to it, a circumstance not to be omitted in any instrument employed on like occasions, to avoid such ill accidents as have sometimes ensued, from these instruments slipping out of the operator's hold.—After the crotchet has passed beyond the substance that obstructs the passage, it is drawn up again, and hooks up with it and extracts that impediment to swallowing.

This crotchet is also very convenient whenever a substance somewhat flexible, as a pin or a fishbone, sticks, as it were, across the gullet: the crotchet in such cases seizing them about their middle part, crooks and thus disengages them If they are very brittle substances, it serves to break them: and if any fragments still adhere within, some other means must be used to extract them.

When the obstructing bodies are small, and only stop up part of the passage, and which may either easily elude the hook, or straiten it by their resistance, a kind of rings may be used, and made either solid or flexible.

The solid ones are made of iron wire, or a string of fine brass wire. For this purpose the wire is bent into a circle about the middle part of its length, the sides of which circle do not touch each other, but leave a ring or hollow cavity, of about an inch diameter. Then the long unbent sides of the wire are brought near each other; the circular part of the ring is introduced into the gullet, in order to be conducted about the obstructing body, and so to extract it. Very flexible rings may be made of wool, thread, silk, or small packthread, which may be waxed, for their greater strength and consistence. Then they are to be tied fast to a handle of iron wire, of whalebone, or of any flexible wood; after which the rings are to be introduced to surround the obstructing substance, and to draw it out.

Several of these rings passed thro' one another are often made use of the more certainly to lay hold of the obstructing body, which may be involved by one, if another should miss it. This sort of rings has one advantage, which is, that when the substance to be extracted is once laid hold of, it may then, by turning the handle, be retained so strongly in the ring thus twisted, as to be moved every way; which must be a considerable advantage in many such cases.

A fourth material employed on these unhappy occasions is the sponge. Its property of swelling considerably, on being wet, is the foundation of its usefulness here.

If any substance be stopped in the gullet, but without filling up the whole passage, a bit of sponge is introduced into the part that is unstopped, and beyond the substance. The sponge soon dilates, and grows larger in this moist situation, and indeed the enlargement of it may be forwarded by making the patient swallow a few drops of water, and then drawing back the sponge by the handle it is fastened to; as it is now too large to return through the small cavity by which it was conveyed in, it draws out the obstructing body with it, and thus opens the gullet.

As dry sponge may shrink or be contracted, this circumstance has proved the means of squeezing a pretty large piece of it into a very small space. It becomes greatly compressed by winding a string or tape very closely about it, which tape may be easily unwound or withdrawn, after the sponge has been introduced. It may also be inclosed in a piece of whalebone, split into four sticks at one end, and which, being endued with a considerable spring, contracts upon the sponge. The whalebone is so smoothed and accommodated, as not to wound; and the sponge is also to be safely tied to a strong thread; that after having disengaged the whalebone from it, the surgeon may also draw out the sponge at pleasure.

Sponge is also applied on these occasions in another manner. When there is no room to convey it into the gullet, because the obstructing substance engrosses its whole cavity; and supposing it not hooked into the part, but solely detained by the straitness of the passage, a pretty large bit of sponge is to be introduced towards the gullet, and close to the obstructing substance: thus applied, the sponge swells, and thence dilates that part of the passage that is above this substance. The sponge is then withdrawn a little, and but a very little, and this substance being less

pressed upon above than below, it sometimes happens, that the greater straitness and contraction of the lower part of the passage, than of its upper part, causes that substance to ascend; and as soon as this first loosening or disengagement of it has happened, the total disengagement of it easily follows.

Finally, when all these methods prove unavailable, there remains one more, which is, to make the patient vomit; but this can scarcely be of any service but when such obstructing bodies are simply engaged in, and not hooked or stuck into the sides of, the œsophagus; since, under this latter circumstance, vomiting might occasion farther mischief.

If the patient can swallow, vomiting may be excited with tartar emetic or ipecacuanha. By this operation a bone was thrown out, which had stopped in the passage twenty-four hours.

When the patient cannot swallow, an attempt should be made to excite him to vomit, by introducing and twirling about the feathery end of a quill in the bottom of the throat, which the feather however will not effect, if the obstructing body strongly compresses the whole circumference of the gullet; and then no other resource is left, but giving a clyster of tobacco.

A person swallowed a large piece of calf's lights, which stopped in the middle of the gullet, and exactly filled up the passage. A surgeon unsuccessfully attempted various methods to extract it; but another, seeing how unavailable all of them were, and the patient's visage becoming black and swelled, his eyes ready to start, as it were, out of his head, and falling into frequent swoonings, attended with convulsions too, he caused a clyster of an ounce of tobacco boiled to be thrown up; the consequence of which was a violent vomiting, which threw up the subtance that was so very near killing him.

A sixth method, and which we believe has never hitherto been attempted, but which may prove very useful in many cases, when the substances in the passage are not too hard and are very large, would be to fix a worm (such are used for withdrawing the charge of guns that have been loaded) fast to a flexible handle, with a waxed thread fastened to the handle, in order to withdraw it if the handle slipped from the worm; and by this contrivance it might be very practicable, if the obstructing substance was not too deep in the passage of the gullet, to extract it. It has been known, that a thorn fastened in the throat, has been thrown out by laughing.

In some circumstances, when it is more easy and convenient to push the obstructing body downwards, it has been usual to make use of leeks, which may generally be had any where, (but which indeed are very subject to break,) or of a wax candle oiled, and but very little heated, so as to make it flexible; or of a piece of whalebone; or of iron wire, one extremity of which may be thickened and blunted in a minute with a little melted lead. Small sticks of some flexible wood may be as convenient for the same use, such as the birch tree, the hazel, the ash, the willow, a flexible plummet, or a leaden ring. All these substances should be very smooth, that they may not give the least irritation; for which reason they are sometimes covered over with a thin bit of sheep's gut. Sometimes a sponge is fastened to one end of them, which completely filling up the whole passage, pushes down whatever obstacle it meets with.

In such cases, too, the patient may be prompted to attempt swallowing down large pieces of some unhurtful substance, such as a crust of bread, a small turnip, a lettuce stalk, or a bullet, in hopes of their carrying down the obstructing cause with them. It must be acknowledged, however, that these afford but a feeble assistance, and if they are swallowed without being well secured to a thread, it may be apprehended that they may even increase the obstruction by their own stoppage.

It has sometimes very happily,

though rarely occurred, that those substances attempted to be detruded, or thrust downwards, have stuck in the wax candle or the leek, and sprung up and out with them: but this can never happen, except in the case of pointed substances.

Should it be impossible to extract such bodies, as it must be dangerous to admit them into the stomach, we must then prefer the least of two evils, and rather run the hazard of pushing them down, than suffer the patient to perish dreadfully in a few moments; and we ought to scruple this resolution the less, as a great many instances have demonstrated, that notwithstanding several bad consequences, and even a tormenting death, have often followed the swallowing of such hurtful or indigestible substances, yet at other times they have been attended with little or no disorder.

One of these four events is always the case after swallowing such things. They either, 1. go off by stool; or 2. they are not discharged, and kill the patient; or else, 3. they are discharged by urine; or, 4. are visibly extruded to the skin. We shall give some instances of each of these events.

When they are voided by stool, they are either voided soon after they have been swallowed, and that without having occasioned scarcely any troublesome symptoms, or the voiding of them has not happened till a long time after the swallowing, and is preceded with very considerable pain. It has been seen that a bone of the leg of a fowl, a peach-stone, the cover of a small box of Venice treacle, pins, needles, and coins of different sorts, have been voided within a few days after they had slipped down into the stomach, and that with little or no complaint. A small flute or pipe, also, four inches long, which occasioned acute pains for three days, has been voided happily afterwards, besides knives, razors, and one shoe-buckle. We have seen a child between two and three years old, who swallowed a nail above an inch long, the head of which was more than three-tenths of an inch broad; it stopped a few moments about the neck, but descended while its friends were looking for assistance, and was voided with a stool that night without any bad consequence; and we have known the entire bone of a chicken's wing thus swallowed, which only occasioned a slight pain in the stomach for three or four days.

Sometimes such substances are retained within for a long time, not being voided till after several months and even years without any ill effect; and some of them have never either appeared nor been complained of.

But the event is not always so happy; and sometimes, though they are discharged through the natural passages, the discharges have been preceded by very acute pains in the stomach and in the bowels. A girl swallowed some pins, which afflicted her with violent pains for the space of six years; at the expiration of which time she voided them and recovered.

Three needles being swallowed, brought on cholics, swoonings, and convulsions, for a year after; and then being voided by stool, the patient recovered. Another person who swallowed two, was much happier, in suffering but six hours from them, when they were voided by stool, and he did well.

It sometimes happens that such indigestible substances, after having passed all the meanders,—the whole course of the intestines—have been stopped in the fundament, and brought on very troublesome symptoms; but such, however, as an expert surgeon may very generally remove. If it is practicable to cut them, as it is when they happen to be thin bones, the jaw-bones of fish, or pins, they are then very easily extracted.

The second event is, when these fatal substances are never voided, but cause very embarrassing symptoms, which finally kill the patient; and of these cases there have been but too many examples.

A young girl having swallowed some pins, which she held in her mouth, some of them were voided by stool; but others of them pricked

and pierced into her intestines, and even into the muscles of her belly, with the severest pain; and killed her at the end of three weeks.

A man swallowed a needle, which pierced through his stomach, and into his liver,* and ended in a mortal consumption.

A plummet which slipped down while the throat of a patient was searching, killed him at the end of two years.

It is very common for different coins, and of different metals, to be swallowed without any fatal or troublesome effects. Even a hundred Louis d'ors have been swallowed, and all voided. Nevertheless, these fortunate escapes ought not to make people too secure and incautious on such occasions, since such melancholy consequences have happened, as may very justly alarm them. One single piece of money that was swallowed, entirely obstructed the communication between the stomach and the intestines, and killed the patient. Whole nuts have often been inadvertently swallowed; and there have been some instances of persons in whom a heap of them has been formed, which proved the cause of death, after producing much pain and inquietude.*

The third issue or event is, when these substances thus swallowed down, have been discharged by urine: but these cases are very rare.

A pin of a middling size has been discharged by urine, three days after it slipped down; and a little bone has been expelled the same way; besides cherry-stones, plum-stones, and even one peach-stone.

Finally, the fourth consequence or event is, when the indigestible substances thus swallowed, have pierced through the stomach or intestines, and even to the skin itself; and occasioning an abscess, have made an outlet for themselves, or have been taken out of the abscess. A long time is often required to effect this extraordinary trajection and appearance of them. Sometimes the pains they occasion are continual: in other cases, the patient complains for a time, after which the pain ceases, and then returns again. The imposthume or gathering is formed in the stomach, or in some other part of the belly: and sometimes these very substances, after having pierced through the intestines, make very singular routs, and are discharged very remotely from the belly. One needle that had been swallowed, found its way out, at the end of four years, through the leg; another at the shoulder.

All these examples, and many others of cruel deaths, from swallowing noxious substances, demonstrate the great necessity of an habitual caution in this respect; and give their testimony against the horrid, we had almost said, the criminal imprudence, of people's amusing themselves with such tricks as may lead to such terrible accidents; or even holding any such substance

* Dr. Kirkpatrick says,—"I saw a very similar instance and event in a lady's little favourite bitch, whose body she desired might be opened, from suspecting her to have been poisoned. But it appeared that a small needle with fine thread, which she had swallowed, had passed out of the stomach into the duodenum, (one of the intestines,) through which the point had pierced, and pricked and corroded the concave part of the liver, which was all rough and putrid. The whole carcase was greatly bloated and extremely offensive, very soon after the poor animal's death, which happened two or three months after the accident; and was preceded by a great wheezing, restlessness, and loss of appetite. The needle was rusty, but the thread was entire, and but very little altered."

* Many fatal examples of this kind may be seen in the Philosophical Transactions; and they should caution people against swallowing cherry-stones, and still more against those of prunes, or such as are pointed, though not very acutely.

in their mouths, as by slipping down through imprudence or accident, may prove the occasion of their death. Is it possible that any one, without shuddering, can hold pins or needles in their mouths, after reflecting on the dreadful accidents and cruel deaths that have thus been caused by them?

It has been shewn already, that substances obstructing the passage of the gullet, sometimes suffocate the patient; and at other times, they can neither be extracted nor thrust down; but that they stop in the passage, without killing the patient, at least not immediately. This is the case when they are so circumstanced, as not to compress the wind-pipe, and not totally to prevent the swallowing of food; which last circumstance can scarcely happen, except the obstruction has been formed by angular or pointed bodies. The stoppage of such bodies is sometimes attended, and that without much violence, with a small suppuration, which loosens them; and then they are either returned upwards through the mouth, or descend into the stomach. But at other times, an extraordinary inflammation is produced, which kills the patient. Or if the contents of the abscess attending the inflammation tend outwardly, a tumour is formed on the external part of the neck, which is to be opened, and through whose orifice the obstructing body is discharged. In other instances, again, they take a different course, attended with little or no pain, and are at length discharged by a gathering behind the neck, on the breast, the shoulder, or various other parts.

Some persons, astonished at this extraordinary course and progression of such substances, which, from their size, and especially from their shape, seem to them incapable of being introduced into, and in some sort, circulating through the human body without destroying it, are very desirous of having the rout and progression of such intruding substance explained to them. To gratify such inquirers, we may be indulged in a short digression, which, perhaps, is the less foreign to our plan, as, in dissipating what seems marvellous, and has been thought supernatural in such cases, we may eradicate that superstitious prejudice, which has often ascribed effects of this sort to witchcraft, but which admit of an easy explanation.

Wherever an incision is made through the skin, a certain membrane appears, which consists of two coats or laminæ, separated from each other by small cells or cavities, which all communicate together, and which are furnished more or less with fat. There is not any fat throughout the human body which is not inclosed in or enveloped with this coat, which is called the adipose, fatty, or cellular membrane.

This membrane is not only found under the skin, but further plying and insinuating itself in various manners, it is extended throughout the whole body. It distinguishes and separates all the muscles; it constitutes a part of the stomach, of the intestines, of the bladder, and of all the viscera or bowels. It is this which forms what is termed the cawl, and which also furnishes a sheath or envelopement to the veins, arteries, and nerves. In some parts it is very thick, and is abundantly replenished with fat; in others, it is very thin and unprovided with any; but wherever it extends, it is wholly insensible or void of all sensation and feeling.

It may be compared to a quilted coverlet, the cotton or other stuffing of which is unequally distributed; greatly abounding in some places, with none at all in others, so that in these the stuff above and below touch each other. Within this membrane or coverlet, as it were, such extraneous or foreign substances are moved about; and as there is a general communication throughout the whole extent of the membrane, it is no ways surprising that they are moved from one part to another very distant, in a long course and duration of movement. Officers and soldiers very often experience, that bullets, which do not pass through the parts where they have entered,

are transferred to very different and remote ones.

The general communication throughout this membrane is daily demonstrated by facts, which the law prohibits; this is the butchers inflating or blowing up the cellular membrane throughout the whole carcase of a calf, by a small incision in the skin, into which they introduce a pipe or the nozzle of a small bellows; and then, on blowing forcibly, the air evidently puffs up the whole body of the calf into this artificial tumour or swelling.

Some very criminal impostors have availed themselves of this wicked contrivance, thus to bloat up children into a kind of monsters, which they afterwards expose to view for money.

In this cellular membrane the extravasated waters of dropsical patients are commonly diffused; and then they give way to that motion, to which their own weight disposes them. But here we may be asked,—As this membrane is crossed and intersected in different parts of it, by nerves, veins, arteries, &c. the wounding of which unavoidably occasions grievous symptoms—how comes it that such do not ensue upon the intrusion of such noxious substances? To this we answer,

1. That such symptoms do sometimes really ensue.

2. And that nevertheless, they must happen but seldom, by reason that all the aforesaid parts, which traverse and intersect this membrane, being harder than the fat it contains, such foreign substances must almost necessarily, whenever they encounter those parts, be turned aside towards the fat which surrounds them, whose resistance is very considerably less; and this the more certainly so, as these nerves, &c. are always of a cylindrical form.—But to return from this necessary digression.

To all those methods and expedients which we have already recommended on the important subject of this article, we shall further add some general directions.

1. It is often useful, and even necessary, to take a considerable quantity of blood from the arm; but especially if the patient's breathing is extremely oppressed; or when we cannot speedily succeed in our effort to remove the obstructing substance; as the bleeding is adapted to prevent the inflammation, which the frequent irritations from such substances occasion; and as by its disposing the whole body into a state of relaxation, it might possibly procure an immediate discharge of the offending substance.

2. Whenever it is manifest that all endeavours, either to extract or to push down the substance stopped in the passage, are ineffectual, they should be discontinued; because the inflammation occasioned by persisting in them, would be as dangerous as the obstruction itself; as there have been instances of people's dying in consequence of the inflammation; notwithstanding the body which caused the obstruction had been entirely removed.

3. While the means already advised are making use of, the patient should often swallow, or if he cannot, he should frequently receive by injection through a crooked tube or pipe, that may reach lower down than the glottis, some very emollient liquor, as warm water, either alone or mixed with milk, or a decoction of barley, of mallows, or of bran. Two advantages may arise from this; the first is, that these softening liquors smooth and sooth the irritated parts; and, secondly, an injection strongly thrown in, has often been more successful in loosening the obstructing body than all attempts with instruments.

4. When, after all, we are obliged to leave this in the part, the patient must be treated as if he had an inflammatory disease: he must be bled, ordered to a regimen, and have his whole neck surrounded with emollient poultices. The like treatment must be used, though the obstructing substance be removed, if there be room to suppose any inflammation left in the passage.

5. A proper degree of agitation has sometimes loosened the inhering body more effectually than instruments.

It has been experienced that a blow with the fist on the spine, or the middle of the back, has often disengaged such obstructed and obstructing bodies; and we have known two instances of patients who had pins stopped in the passage, and who getting on horseback to ride out in search of relief at a neighbouring village, found each of them the pin disengaged after an hour's riding; one spat it out, and the other swallowed it, without any ill consequence.

6. When there is an immediate apprehension of the patient's being suffocated; when bleeding him has been of no service; when all hope of freeing the passage in time is vanished, and death seems at hand if respiration be not restored; the operation of bronchotomy, or opening the windpipe, which is done by cutting into the windpipe near the breast-bone, must be directly performed; an operation neither difficult to a tolerably skilful and expert surgeon, nor very painful to the patient.

7. When the substance that was stopped, passes into the stomach, the patient must immediately be put into a very mild and smooth regimen. He should avoid all sharp, irritating, inflaming food; wine, spirituous liquors, all strong drink, and coffee; taking but little nourishment at once, and no solid, without their having been thoroughly well chewed. The best diet would be that of farinaceous mealy soups, made of various leguminous grains, and of milk and water, which is much better than the usual custom of swallowing different oils.

The Author of Nature has provided that in eating, nothing should pass by the glottis into the windpipe.—This misfortune, nevertheless, does sometimes happen; at which very instant there ensues an incessant and violent cough, an acute pain, with suffocation; all the blood being forced up into the head, the patient is in extreme anguish, being agitated with violent and involuntary motions, and sometimes dying on the spot.—A Hungarian grenadier, by trade a shoemaker, was eating and working at the same time. He tumbled at once from his seat without uttering a single word. His comrades called out for assistance; some surgeons speedily arrived, but after all their endeavours, he shewed no token of life. On opening the body, they found a lump of beef, weighing two ounces, forced into the windpipe, which it plugged up so exactly, that not the least air could pass through it into the lungs.

In a case so circumstanced, the patient should be struck often on the middle of the the back; some efforts to vomit should be excited; he should be prompted to sneeze with powder of the lilly of the valley, sage, or any cephalic snuffs, which should be blown strongly up his nose.

A pea, pitched into the mouth in playing, entered into the windpipe, and sprung out again by vomiting the patient with oil. A little bone was brought up from another, by making him sneeze, with powdered lilly of the valley.

In short, if all these means of assisting or saving the patient be evidently ineffectual, bronchotomy must be speedily performed. By this operation, bones, beans, fish-bones, &c. have been extracted, and the patient has been delivered from approaching death.

DESCRIPTION OF PLATE II.

MUSCLES OF THE FACE.

FIG. 1.

A THE occipito-frontalis, a broad thin muscle, arises from the ridge of the occipital bone, covering the back of the head, extending from the mastoide process of one side to that of the other; it forms an aponeurosis or thick parchment-like sheath on the top of the head, and loses itself in the skin and eyebrows, which it raises, and likewise wrinkles the forehead.

B The corrugator supercilli. This muscle arises from the root of the nose, and is inserted among the fibres of the occipito-frontalis mus-

cle. It draws the eyebrows together in the action of frowning.

C The orbicularis palpebrarum arises and is inserted into the inner angle of the orbit; it is a neat flat muscle encircling the eye, which it squeezes when hurt, and is useful in expressing various passions.

D The constrictor nasi, has its origin at the lower part of the os frontis, and is inserted into the cartilage of the nose. It acts in smelling, and in expressing horror, disgust, and, as some assert, in laughter.

E Dilator alœ nasi, a pyramidal muscle arising from the nasal process of the maxillary bone, and is inserted by two small points into the cartilage of the nose and the upper lip; its use is to dilate the nostrils, and raise the lips. Used in rage, anger, and contempt.

F Levator labii superioris, takes its origin from under the edge of the orbits, and runs obliquely downwards to the middle of the lip, which it pulls directly upwards. Used in expressing contempt, in laughing, and in sneering.

G Ossa malarum, sometimes called osa zygoma, or cheek bone.

H The levator anguli oris; this muscle takes its origin from the superior maxillary bone, above the canine teeth, it is inserted into the corner of the mouth, which it pulls upwards. Used (when conjointly) in laughing, but (if separately) contempt.

I I I The buccinator, a large flat muscle of the cheeks, passing under the zygomaticus major: it arises from the lower jaw and superior maxillary bone, and is inserted into the corner of the mouth; its use is to assist in swallowing and turning the food in the mouth, as well as in laughing and expressing horror.

K The depressor ali nasi, arises from the fore teeth, and is inserted into the cartilage of the nose and upper lip, which it pulls down. Used to express pride, command, and rebuke.

L Orbicularis oris, a regularly round muscle, surrounding the mouth and forming the lips. It contracts the mouth, as in whistling.

M The zygomaticus major arises from the cheek-bone, and runs downwards towards the corners of the mouth. It serves in the action of laughing.

N Depressor anguli oris, arises fleshy from the angle of the lower jaw, and is inserted into the corner or angle of the mouth, which it draws downwards. Used in expressing malice.

O The levator menti takes its origin from the lower jaw, and is inserted into the skin on the centre of the chin; when it contracts, it draws the centre of the chin into a dimple, and moves the lips at the same time.

P The masseter, a thick fleshy muscle, which forms the back of the cheek, it arises from the superior maxillary bone, and from the lower edge of the zygoma, and is inserted into the angle of the lower jaw; the use of this muscle is the same as the temporalis—to masticate the food.

2 Temporalis; this great muscle arises from the lower part of the parietal bone, the sphœnoid, temporal, and frontal bone; it passes in a narrow compass under the zygoma, to be inserted into the process of the lower jaw; its use is to pull the lower jaw upwards, which it does very powerfully, particularly in mastication.

EXTERNAL MUSCLES OF THE NECK.

FIG. 2.

R The mastoideus, or sterno-cleido-mastoideus, has its origin from the sternum and the clavicle, and is inserted into the mastoid process of the temporal bone. This muscle turns the head to one side, and bends it forward.

S Sterno hyoideus has its origin at the upper part of the sternum, and is inserted into the body of the os hyoideus, or the bone of

Adam's apple or larynx. This, as well as all the muscles which are inserted into os hyoides or bone of the larynx, are principally for the act of swallowing and the voice.

T Omo hyoideus has its origin from the scapula, and passing round the throat, is inserted into the os hyoideus. This muscle assists in pulling the head to one side, as well as in managing the voice.

V The mylo hyoideus; this muscle has its origin at the internal edge of the lower jaw, and terminates in the os hyoides. It opens or depresses the lower jaw.

X Stylo Hyoideus takes its origin from the styloid process of the temporal bone, and inserts itself into the side of the os hyoides: principally used in managing the voice.

Y The digastricus takes its origin from the groove of the mastoide process of the temporal bone; it goes obliquely downwards, and becomes thick and tendinous; it perforates the stylo hyoideus muscle, and is inserted at the bottom of the os hyoides, marked *Z*. Its use is principally in the voice and in swallowing.

No. 1. Part of the levator scapulæ. Its use is to assist in rising the shoulder, and bending the head backward and sidewards.

No. 2. Part of the trapezius—to move the shoulder bone in three different directions.

No. 3. The place where pass several small extensor muscles.

DESCRIPTION OF PLATE III.

BONES OF THE BACK PART OF THE BODY,

No. 1. Ossa parietalia, or parietal bones.
2. The os occipitis, or occipital bones.
3. The seven vertebræ of the neck.
4. The twelve vertebræ of the back.

The mark *O*, the twelve ribs; the seven upper ones are called true, and the five lower, false, because they do not articulate with the sternum, or breast-bone.

5. The basis of the scapula, or shoulder-bone.
6. The inferior angle of the scapula, to which the teres major muscle and latissimus dorsi muscle are fixed in passing.
7. The upper angle of the scapula.
8. The spine of the scapula, which is filled by the supra spinatus muscle.
9. The acromion, where the trapezius muscle is inserted.
10. The posterior part of the clavicle.
12. The large process of the humerus, or great bone of the arm.
13. The vertebræ of the loins.
14. The os sacrum.
15. The os coccygis.
16. The os ilium.

REMARKS UPON SEA AND FRESH WATER BATHING;

WITH THE USE OF THE HOT AND COLD BATH, THE EFFECTS OF DRINKING SEA-WATER, &c.

BY H. VILLERS, M. D.

The cold bath is a powerful tonic, but, like all others, may be abused and do mischief; and the warm bath, in like manner, has its good and bad effects; and their consequences must depend as symptoms may point out their use, or the reverse. On this subject, a word by way of digression, on the regulation of baths, may not be unacceptable to our readers. The first action of cold is to produce a sudden torpor in the vessels of the skin, and to determine the volume of blood from the external to the internal parts; hence, if the person be disposed to internal hæmorrhages, or apoplexy, the first application of cold to the skin may produce the complaint. No one disposed to phthisis pulmonalis, or consumption of the lungs, either from tubercles or bleeding, ought ever to use the cold bath; in such cases, sea-air and sea-bathing accelerate the disease; the preparation necessary towards a course of sea-bathing in general, is to take a hot

sea-bath for an evening or two at first, to relax or open the pores of the skin; after this, cold sea-bathing, and drinking it, should commence, and be continued every morning for some time.

In hot weather, however, from the latter end of June to the end of August, when the nights become sultry and warm, the best mode may be, to drink the water in the morning, and bathe in it in the evening of the same day, which in general will ensure a cool and agreeable night's repose.

Sea-water taken internally, from the want of a little precaution, generally produces thirst, and febrile symptoms; this happens when it is not sufficiently diluted to pass through the kidneys without producing irritation. The best way to remedy this evil, and take off its nauseating taste, is to take half a pint of it in one hand, and half a pint of common water in the other, the latter to be swallowed instanter after the former, before it has had time to impress its saltness on the tongue. Sea-water, thus washed down hastily, is by no means disagreeable, and being thus diluted, passes through the kidneys without causing any pain in the back, or febrile symptoms, and, without the least sickness or griping pains, procures a gentle evacuation.

Cold sea-bathing, as it is about eight times warmer in general than a cold bath of spring water, and a forty-fifth part heavier, is advised upon a very different principle from the latter, whose virtue consists solely in its chilling effects, and the force with which the shock of it impels the blood with violence upon the action of the heart, and its consequent glow from its elastic re-action, in forcibly throwing it back again upon the external parts. On the other hand, the warmer the sea is, which I believe many have distinguished from the roughness of its waves, the better effect it has in entering the absorbent pores of the skin, and in scouring the glands of it, by a saponaceous property which it possesses in an eminent degree. Hence it becomes so very serviceable in their various and complicated obstructions, and the consequent diseases of the skin from obstructed perspiration, in the luxuriously fed and indolent hysterical persons.

All people weakened by disease to a certain degree, are incapable of bearing the concussion of a cold bath: its utility arises from its secondary operation; the irritability is accumulated in the vessels of the skin; they are stimulated to act more strongly; the balance of the blood is restored to the external surface, and kept up there; a glow of heat ensues. Those disposed to gouty affections should never use the cold bath; by the cold bath is meant every degree of cold under 85°, which always proves more or less tonic in its operation. In many cases, where the patient is too weak to bear a bath of 40°, one of 65° acts like a charm. Thus rheumatism is benefitted by whatever strengthens the system, and particularly the skin; the first degree, i. e. 40°, will bring on the paroxysm, while a bath of 65° is an excellent remedy: hence the Matlock and Buxton waters are so useful. A bath from 90° to 100°, is a warm bath, and by this the vessels of the skin are not stimulated into action, but the blood is determined to it. It is useful in chronic inflammations of internal parts, in acute rheumatism, in gout while the fit is present, in old coughs, inflammations of the bowels, and above all, in hysterics and hypochondria, and also in many cutaneous diseases. Every degree above 100°, is a hot bath; this always stimulates the skin at first, then brings on a state of relaxation and profuse sweat.

It is rather a singular observation, though the bladder may have been emptied at going into the sea, that, in the course of ten or fifteen minutes swimming in it, a very considerable quantity of limpid water will, by absorption, have found its way into it. It is likewise a known fact, that in the most dreadful situation which sailors can experience with thirst, for want of water, wetting their bodies with towels dipt in sea-

water, have afforded them remarkable relief—this being sea-water's peculiar excellency, together with its saline properties, oiliness, and ponderosity. Those persons who expect benefit from a mere dip or two, out of a bathing-machine or otherwise, will undoubtedly meet disappointment; as in this hasty manner of using it, it certainly must be less efficacious and inferior to the cold bath.

In chronical deep-seated rheumatisms, hot sea-bathing, and fumigations medicinally conducted and persisted in for a proper time, will effect most extraordinary cures, provided a subsequent course of sea-bathing has been perfected, as I have witnessed in cases which have resisted all medical attention and contrivance in the application of the Somersetshire waters. I think the like success may follow in inveterate leprosies, impetigoes, tetters, glandular swellings, various eruptions, and diseases of the skin, by observing the remarks here laid down, in regard to drinking and bathing in it.

HEAD-ACHE OCCASIONED BY TOO GREAT A FULNESS IN THE STATE OF THE BODY.

BY MR. FARMER, SURGEON, SUN-STREET, LONDON.

Of all the species of head-ache to which we are subject, this is decidedly the most important, and chiefly so as it regards its ultimate effects (if not relieved by the interference of art) on either the human frame, or our intellectual faculties. If a comparison be made between it and the other kinds of head-ache, they may be regarded as trivial; for notwithstanding their obstinacy, frequent recurrence, and painful phenomena, they nevertheless do not appear to abstract from the ordinary sum of human life, nor so often lead to ill consequences in the mental structure of man.

The symptoms which mark the character of this affection, may be enumerated under the following observations.—A dull and deep-seated pain is felt at the top of the head, and across the forehead from one temple to the other. Sometimes the back part of the head, near to the neck, is the seat of pain, and from that point it shoots towards the crown, or behind the ears. Along with the pain, there is a peculiar sense of weight, fulness, and giddiness, which conveys to the patient occasionally a feeling of whirling round, particularly if he stoop his head; the eyes are blood-shot, and appear tumid and stiff; vision is somewhat impaired, and, in dangerous cases, nearly interrupted; there may be likewise noticed, certain sounds in the ears of some patients, resembling the roar of the occean;. in others, a peculiar humming, not unlike that of bees. This, however, is but rare, and is not confined to this species of head-ache, for many people experience it when in perfect health.

In some cases, the face strongly indicates the presence of plethora in the brain, by the flushing and heat that may be observed; but in others, it is but a bad criterion, for instead of the above appearance, there is unusual paleness spread over it. Like unto the countenance, the pulse is rather a falacious guide; for, although it will be in some instances strong, hard, and accelerated, yet there are cases in which it is the very contrary, being small, slow, and even soft.—These things serve to show us that we should not form our judgement of a complaint by one or two symptoms, but by a combined view of the whole. In very severe cases, and particularly those which proceed from an injury, all those symptoms are much aggravated, and especially the pain which threatens to usher in delirium.

But there are very many instances of plethoric head-ache being unaccompanied by any of the above symptoms, except the pain (if it can be so called); for it is in those cases only an uneasy sensation in the top of the head; but it is the absence of acute suffering that renders this

malady so dangerous; for, perhaps, while enjoying the best health, and amidst a flow of animal spirits, the patient is snatched, by a fit of apoplexy, beyond the reach of the healing art, be it administered by ever so able a hand. It is thus that we every day hear of that terrible disease invading the bosom of families, and causing hilarity and peace to give place to mourning and tears. Yet I do not wish to convey an idea that such sensations are always the precursors of the consequences just detailed, for there are various symptoms resembling the above, which portend no mischief to the individual who labours under them. Nevertheless, it is worth his while who suffers in any way by affections of the head, to inquire into their peculiar characteristics.

Whatever things have the effect of augmenting the natural flow of blood to the head, are the causes of this malady. The first to be noticed, is external injuries which the head may have sustained, such as violent blows and shakes. Next to these may be remarked, a preternatural determination of blood to the brain, which frequently arises from disease in the heart or liver; and sometimes in consequence of a plethoric state of the system. Corpulency may also be ranked as a very common cause of head-aches of this kind; the reason of this is, because the accumulation of fat about the neck obstructs, in some degree, the due return of blood by the jugular veins from the head. Another cause is the suppression of some long-accustomed discharge from some part of the body, such as the piles; or the too hastily healing up sores on the legs of persons in middle life. I have also remarked, that some females, at the turn of life, experience affections of this kind in a very aggravated degree.

We also find that this species of head-ache is very prevalent among persons who devote their minds to intense study, or abstract them in profound cogitations. Literary pursuits have a great tendency in producing this affection, on account of persons remaining in a stooping position for several hours, which favours the ascent of blood to the head. Another very prominent cause, is the custom of wearing thick and tight neck-cloths, which operate in the same manner as an increase of fat. If this fashion be detrimental to spare and delicate persons, how much more must it be to men of a robust constitution? But the most prolific source of this head-ache is habitual drunkenness. It is to it alone we can often trace the appalling consequences arising from over-distension of the vessels of the brain, which are to be met with amidst the gloom of lunatic asylums, or in the tomb itself. Passions of the mind, however opposite in their nature, such as excessive joy, grief, or great anxiety, are all productive of head-aches of this description; in short, whatever tends to throw the nervous system, and by it, the heart, into commotion, will not fail in leaving some such effects behind it.

It is of consequence to be able to distinguish the complaint under consideration from others which bear some analogy to it, as it regards some symptoms. The necessity of this becomes obvious, when we reflect what a discrepancy exists between the treatment and regimen to be observed in this species, compared with head-aches of a different kind. It may be distinguished from head-aches which proceed from derangement in the biliary secretions, by the pain being less severe, and generally confined to the crown and back of the head; and by its becoming aggravated on either stooping or shaking it. There is likewise a sensation of tightness and fulness in the forehead and nose, symptoms which are very peculiar to this head-ache. From rheumatic head-ache it may be recognised as differing on account of the very sudden appearance of that complaint, and likewise the moving disposition of the pain.

It may, however, be frequently remarked, that with this head-ache is found co-existing the sick head-ache, and sometimes the rheumatic.

In treating this complaint, two ob-

jects are to be kept in view; the first will be to remove the cause of suffering or danger; and the next to lay down a plan of regimen which will operate in preventing other attacks. The first intention may be obtained by local or general blood-letting: the latter I think the most preferable, as by that mode faintness is more likely to be produced, a circumstance on which a good deal of the salutary effects of bleeding depends in the treatment of such diseases. To cause it to take place, the orifice in the vein should be made large, so that the blood may flow in a full stream. Local depletion is effected by cupping and leeches: the former is a favorite method of some practitioners, but I cannot say that it was so productive of benefit in my hands; for when that mode was adopted, I think the symptoms returned much sooner than when blood was drawn from the arm. I have been inclined to attribute that circumstance to the sudden flow of blood into the vacuum which the rarified glasses had caused.

Opening the jugular vein may be recommended with a better prospect of usefulness; but I have generally found that people have a great aversion to this mode of bleeding, which seems to be the reason why that operation is so seldom performed. A very expeditious method of relieving this head-ache is taking blood by puncturing the temporal artery; but as the doing of it requires some degree of nicety, and the blood being likely to gush out rather violently, which is apt to alarm, I think it would be as well not to have recourse to it, unless the case be very urgent.

Next to the above practice, the operation of cathartics affords the most decided benefit. The purges that are employed should, I think, consist chiefly of extracts; and if they gripe the bowels a little, they are better, as by that means counter-action is produced. Few persons can imagine how efficacious medicines of that class are in removing affections of this nature. Pills made as follows are what I usually administer:—

Take of compound extract of colocynth, twenty-four grains;
Of compound gamboge pill, twelve grains;
Of compound powder of scammony, fifteen grains;
Of syrup of cloves, a sufficient quantity:
Mix,—and divide the mass into twelve pills,—one or two of which to be taken occasionally.

It has been frequently remarked by me, that a powerful cathartic has produced such effects on the vascular system, as to save the necessity of resorting to the lancet, the pulse losing much of its hardness and rapidity. To obtain that object is very desirable, particularly in some cases of this kind, which consist of a continual determination of blood to the head (without there being any very evident cause for it,) and which very frequently gives rise to such alarming symptoms, as to call for the most prompt depletion. The reason why a purgative of this description proves more serviceable than that of a liquid form is, because it generally creates more irritation in the bowels in passing through, which causes the blood to be diverted to them, and thereby diminishes the quantity flowing to the head; besides, it lowers the system generally, by withdrawing a portion of nutritious matter from the body, which matter adds richness and velocity to the blood.

In addition to the occasional use of cathartics, I would advise persons who labour under this affection, to endeavour to make a constant practice of pouring cold water on the head in the morning on rising; taking care, however, not to apply it if there be any sensible perspiration, either on the body or on the part affected. The best mode of using water is, to suffer the cock of the cistern to run while the head is under it; but if that method be not convenient, a watering-pot may be substituted. By these observations, I do not intend to recommend the shower-bath that is generally used; on the contrary, I consider its employment

for the relief of this head-ache as ill judged, and in many instances, highly detrimental. The reason for this is obvious. If cold be applied to the surface of the body suddenly, the blood in the extreme vessels in the skin is driven to the internal organs, and most commonly it is propelled to the head with great violence, and hence we sometimes hear of apoplexy being produced by the application of the shower bath.

Now to the simple washing of the head with cold water, no such objection will apply; for, independent of its causing the egress of redundant blood from the brain, it likewise removes the morbid heat which usually attends this malady. It also proves a valuable source of refreshment to him who consumes the midnight oil in pursuit of literature; it will give to his exhausted faculties new tone, and enable him to return to his labours with renovated ardour.

For the purpose of at all times keeping the head moderately cool, the hair ought to be worn very short, more particularly in warm weather. It would be also incumbent on those who use hair powder, to leave off the custom, as it is apt to obstruct the perspiration, a circumstance that would prove very injurious. This caution seems almost superfluous in the present day, when the fashion has become nearly obsolete; yet there may be persons who experience affections like this, that do not suspect them to proceed from such a cause. It would likewise be necessary to dispense with thick night-caps, as they have a great influence in creating a superabundance of heat in the head. If they be worn, it would be right to have them made of the thinest texture, such as net-work.

It is of great importance to persons who are liable to this malady, to lie with the head much elevated above the trunk of the body; they should likewise be careful not to suffer any thing tight to be round the neck when in a recumbent posture. Sleep has been always considered as the "chief nourisher in life's feast;" yet if it be indulged in too freely by persons of a robust habit, it has a direct tendency to produce serious affections: to such people, therefore, it will be of consequence to abridge their usual quantum of repose. It would be difficult to fix any precise limitation as to what might be the quantity of sleep necessary to renovate the exhausted powers of the human frame; for we find that there are many persons who can forego their usual rest for several nights together without sustaining detriment; whilst there are others who scarcely even sleep at all, and yet are in health. All this goes to prove that a plethoric patient might with propriety dispense with a portion of those habits which militate against the sanitary state.

In a form of this malady, which consists of a continual morbid determination of blood to the head, and which called for the frequent use of the lancet, I have found the greatest benefit to arise from the effects of an issue in the lower extremities. The way in which it operates, is by exciting a discharge of matter in a distant part of the body; by which the blood is diverted from the diseased part to the artificial drain; and thus a kind of equilibrium is established in the circulating system. The most proper part to insert an issue, is in the leg, just below the knee. It should be dressed daily, and kept open until that period of life "when the blood is tame and humble, and waiteth upon the senses." It may be then healed up with safety, for as old age advances, the vital fluid flows with less impetus than when youthful imaginations and exertions imparted spirit to it.

In recommending the above practice, I am only reviving that which has been long laid aside, owing to the prejudices of patients themselves, and the physiological pride of medical practitioners, which induced them to reject such a remedy. But I consider practical results as outweighing theoretical conclusions, and to them alone I appeal. It was reasoning from analogy, and some accidental occurrences, that first induced me to try the effect of issues in complaints of this nature. I had frequently ob-

served, that apoplectic and paralytic affections succeeded the drying up of ulcers on the legs, especially when the sores had broken out without external violence. In some people, very severe head-ache followed and continued until a discharge was re-produced. These things led me to conclude, that by making an artificial sore in the legs of those who suffered from diseases of this kind, it would prove serviceable. I accordingly reduced my views to practice, and the result has been such, that I can confidently recommend issues as a valuable auxiliary to the treatment of an obstinate plethoric head-ache.

The following case, which was not long since treated by me, will illustrate the utility of the above practice. A person belonging to the Lord Mayor's household, aged forty, was subject to a determination of blood to the head. He was of a robust habit, and disposed to corpulency. The pain was not acute, but seemed to approach more to giddiness than an uneasy sensation. His countenance was not flushed, but it bore an impression of alarm, arising from the continual dread of apoplexy, to the verge of which he had been often brought; and on several occasions, copious bleeding alone rescued him from death. Indeed, so rapid were the succession of attacks of that kind, that he was obliged to lose blood sometimes twice in a fortnight. In this manner he went on for two or three years, during which time he had consulted several practitioners. Some of them considered it as a nervous affection, and exhibited cordials, such as æther, and the like: others advised cupping and blisters; but these only acted as palliatives: one medical man, indeed, recommended an issue, but it was inserted in the wrong place, (in the back of the neck,) and of course proved injurious; in fact, it only made things worse, and was therefore quickly healed up again.

It was not, however, likely that any benefit could be derived from any of these plans, as his bowels were unattended to, and no attention whatever was paid to regimen. Under these circumstances I was consulted, and on hearing the history of the case, I was convinced that it called for very different measures. Anxious to give the patient some permanent relief without calling in the aid of the lancet, I commenced the treatment by the administration of drastic purgatives, which did some good. But the recurrence of dangerous symptoms soon pointed out the necessity of employing additional means of combating them. I accordingly recommended that an issue should be made in the leg, at the same time enjoining the patient to abstain from all kinds of stimulants, and even from animal food. After some hesitation, it was agreed to, and the drain was established, which had not long discharged, before it demonstrated its decided efficacy. In short, before the lapse of a month, all serious symptoms were entirely removed, leaving only a slight giddiness, which occurred occasionally only, when the patient stooped, or used great exertion. But the principal object was gained, which was to save the so frequent abstraction of blood; as for several months there has not been the least occasion for resorting to it, and the individual in question is now enjoying comparative good health.

The above case may be considered decisive as to the beneficial effect of issues in the lower extremities, in the treatment of affections of this kind; provided, however, the practice be followed up by restraints on the appetite, and a regulated course of living. There are many who object to making an artificial sore in the leg, and thus creating as it were, one disease to heal another: but to such persons the question may be put,—which of the two is most easily borne, or most likely to lead to unpleasant results? The trouble attending the dressing of issues forms another ground of objection; but I presume to think, that few would suffer themselves to be deterred from trying the remedy by that consideration. If the discharge should become offensive in consequence of warm weather or any other circumstance, it can be rectified

by applying a poultice of bread and water, to which a little vinegar has been added; but it will seldom be necessary if due cleanliness have been observed. To prevent any moisture from appearing through the stocking, a piece of oil-skin should be worn over the part.

When we find that a plethoric head-ache is caused by the suppression of some evacuations which are essential to the well being of some people, such as the piles in lusty men, and the catamania in females, means should be resorted to for the purpose of reproducing them. This may sometimes be accomplished by putting the feet in warm water, or sitting over the steam of it. If this affection be met with among females at the turn of life, and who are inclined to obesity, issues offer the only means of giving relief, more particularly if blood-letting have been unavailing. We have seen that violent grief is sometimes the cause of this malady: when that is the case, the mind ought to be diverted from the cause of mourning, and soothed by the voice of friendship. In addition to that it would be proper to keep the patient on a low diet, as a state like this is sometimes a prelude to mania. Corpulency is often the most evident cause of head-ache of this kind, for by it the blood is prevented from returning from the head in the same proportion as it entered that organ. Persons disposed that way, ought to regulate both their diet and general habits, so as to prevent an increase of robustness. The student who suffers from these kinds of head-aches, must be admonished to relax from his pursuits when they interrupt the due march of health. How many are there, who in striving for the literary honours which a university holds out to her votaries, lose the means of enjoying them by the consequence of over mental exertion.—Others who derive pleasure from books, sometimes carry the predilection to such an extent, as to lay the foundation of diseases, which may in after-life mar their comfort.

Diet and regimen are important branches of the treatment of this complaint, as they not only assist in removing the more urgent symptoms, but are also the best means of preventing the return of attacks. It is particularly so to those persons who have a tendency to general fulness of habit; which has been noticed as one of the principal causes of plethoric head-ache. To such, therefore, the following rules will apply, if they can summon sufficient resolution to forego the use of such things as are held by some people to be essential to their comfort, and even to their existence.

In head-aches of a particular obstinate nature, it will be necessary for the patient to abstain from all kinds of animal food, and to adopt a low unstimulating diet, such as bread and milk, or tea and dry toast; but if these be unpalatable, dried or ripe fruits may be substituted. This course should be persevered in until all traces of pain and giddiness be removed. It will be equally requisite to give up all irritating liquors, such as spirits and the like. Now, with respect to the latter, no rule can be mentioned as to their resumption, as I consider such things as by no means necessary to our well being, unless it be at the period of old age, when the natural heat of the body is on the decline. There are some persons who think that by changing from a full to a low diet, some deleterious effects would accrue to the constitution; but, generally speaking, the idea is erroneous, and I doubt whether there be any person who can ascribe any one disorder to such a circumstance; on the contrary, he who dispenses with stimulating drinks will find both his strength and spirits not at all impaired. These observations will, however, chiefly apply to those persons who have a disposition to get fat.

But a greater inducement to conform to a spare diet, will be found in its tendency to subdue arterial excitement, by diminishing the nutritious principle which is continually adding to the vital stream when a person is in possession of full health. Now

it is to that we can not only trace the augmentation to robustness, but also the underflow of blood towards the head. Habitually indulging in the use of ardent spirits is attended with still worse consequences, and may be aptly compared to the taking of slow poison; for, together with stimulating the brain to an improper height, it injures the coats of the digestive organs. To such deleterious habits we may ascribe the rise of most of the diseases which shorten the span of human existence; and, in most instances, they operate immediately in cutting off the career of the determined inebriate. Altho' there may be some drunkards who pass the meridian of life, apparently in vigour, yet its early decline is accompanied with symptoms that denote their remote cause. Thus the tremulous hand, the palsied limbs, and faultering tongue, indicate that death already lays claim to his victim.

Fermented liquors of any kind, but especially those made from malt, are just as pernicious (or perhaps more so) as spirits, to persons who are subject to affections of this description. The narcotic principle that enters into the composition of malt liquors, renders them particularly objectionable, for it operates in inducing a sluggishness of the veins, which prevents them from transmitting the blood from the different organs with the same quickness as it is propelled into them by the arteries; and hence we find that congestion of blood in those organs takes place.—It is thus that great beer-drinkers are generally sufferers from this headache, which are often generated by the sleep which such things never fail in producing. There is no time in which the blood ascends to the head with greater rapidity, as during a nap after dinner. This may be accounted for from the circumstance of digestion being favoured by a state of repose, and by it the pulse is considerably augmented.

As to the time for taking meals, I consider it of great consequence, as irregularity in that respect is very likely to produce a disposition to this affection, particularly if they be taken at late hours. On this account, I would advise dinners to be taken somewhat early, perhaps one o'clock, but never after three. If suppers be desired, they also ought to be eaten at a sufficiently early time to enable the stomach to digest its contents prior to going to bed, for it is not prudent to retire to rest with that organ full. It would be, however, very desirable if supper could be entirely dispensed with: at all events, neither meat or strong drinks should form a part of that meal, nor should it be taken to satiety. If a person be in a recumbent posture, and the stomach is distended by aliments, it is apt to press on the great blood-vessels, by which too much blood is thrown on the brain, and thus apoplexy is sometimes produced.

Although sleep is properly considered as one of the greatest means by which health is preserved, yet if it be indulged in to too great a degree, it is apt to lead to a very opposite state; and this is particularly observable amongst those of a robust habit of body. It is therefore incumbent on them to curtail the hours which are devoted to repose, to such an extent as not to detract from the restorative power of sleep, and yet prevent it from increasing the determination of blood to the head.

Clothing is another thing which ought to be attended to by persons who are subject to this species of head-ache. It should be so regulated as to prevent the changes of atmosphere from affecting the system: for that purpose a flannel waistcoat ought to be worn next to the skin in those parts of the year in which such changes are likely to take place; for instance, winter, autumn, and spring. It is of prime importance to keep the feet uniformly warm and dry, for nothing is so injurious to the constitution as cold wet feet. To prevent it from occurring, strong shoes should be worn, which, together with woollen socks, produce not only comfort, but a proper degree of warmth. And here I would particularly caution

robust people not to retire to bed with cold feet; as when that is the case, the blood is very likely to fall upon the brain, in consequence of its not being equally circulated. Fur caps, heavy hats, and, in short, any thing that has the effect of inducing heat in the head, must be laid aside; and straw or chip hats substituted in lieu of them. If travelling in winter, and the weather be very severe, there can be no objection against the wearing of furs; but in towns, and especially in doors, they will prove injurious.

In enumerating the causes of this head-ache, I mentioned the fashion of wearing thick neck-cloths as being one of the most apparent. Now if an affection of this kind can be traced to that circumstance, I conceive it to be almost needless for me to recommend the discontinuing of it: at all events, a stiffener should never be worn with a handkerchief by those who are subject to a fullness of the vessels of the brain. When it is considered how close to the heart these vessels are, and how easily their action is augmented by being situated so near it, the above admonition will not be held as wholly uncalled for.

The external jugular veins which pass down on each side of the neck, just under the skin, are very readily obstructed; they are for the purpose of transmitting blood from the external parts of the head, to the central organ of circulation: it is therefore obvious, if any thing is worn round the neck with any degree of tightness, so as to prevent the flow of blood downwards, we may expect bad consequences to arise. Independent of the obstruction which a neck-cloth creates, it adds to the impetuosity with which the blood ascends to the head, by the warmth which is excited in the part.

The alarming increase of apoplectic fits for several years past, has naturally given rise to the question,—what do they proceed from? Various opinions have been given by writers on the subject, but none appear to be satisfactory. Thus we are told, that to the inordinate use of malt and spirituous liquors; to the anxiety attendant on commercial pursuits, which have increased greatly within the last century in this country; and to an hereditary disposition, like many other diseases, we are to ascribe the causes of that terrible complaint.—Now as to the first position, it is not borne out by historical observation; for it must be recollected, that beer was drank to a much greater extent two hundred years ago, than in the present day; for it, at that period, constituted the usual beverage, of not only dinner and supper, but also of breakfast, and that, too, amongst the very highest classes of the community. As to the second position, it certainly rests on a better basis, but even this will not do; for we do not find that sudden deaths are more prevalent among merchants than any other class. With respect to the idea of apoplexy being transmitted from parents to their offspring, it is certainly more feasible; for we may observe, in many instances, that a son will expire in the same manner and at the same age as the father had done before him; yet we seldom find the female part of a family so disposed, when even so many circumstances connected with that sex, conspire to aggravate a morbid flow of blood to the head. Thus these opinions are no proper solution to the question, as the disease cannot, in general, be traced to the above causes.

Now from all the consideration I have given to the subject, and coupling it with many corroborative circumstances, I find no hesitation in coming to the conclusion, that the prevalency of apoplexy is owing, in a great measure, to the introduction of the custom of wearing cravats. This observation will appear less extraordinary, when we call to mind the fact that this addition to our dress was not adopted until the sixteenth century, previous to which period, the disorder in question was met with but as one to three, compared to the present. In that day, the neck was divested of every kind of covering except a slight frill, which contained no warmth; and instead of

detracting from dignity, it added much to the majesty of the countenance. A mere shirt collar was worn on the neck by some people, but it did not operate in augmenting vascular action there.

But I find another proof of the feasibility of my remarks, by the circumstance of females being less liable to apoplexy than the opposite sex, although the nature of their economy, and the frequency with which obstructions take place with them, might be supposed to lead much oftener to the complaint. Now we find that their necks are not enveloped in padded ligatures, and consequently the proportion of sudden deaths amongst them is much less than in men.

It would appear, that not only is disease the consequence of an alteration of fashion, but may we not also inquire, whether it has not militated against the emanations of genius?* To what are we to ascribe the manifest falling off of talent in the present century, compared to that of the preceding? Does the page of poetry, of the present day especially, exhibit the brilliancy of imagination, or the sublimity of flight which characterized that of the Miltons, the Drydens, and the Popes? It is true, that at present there is no paucity in the numbers of the aspirants to poetic fame; but, with the exception of a few, the works of modern bards must pass down the stream of oblivion, without purchasing for their authors the "storied urn or animated bust." It cannot be wondered at, that the mind should be less creative, or the fancy less excursive, if the vessels of that organ from whence it springs, be congested with an undue quantity of blood.

On these grounds I would recommend to all classes to cease to swathe their necks with thick cravats, seeing that the custom is attended by such evil consequences.

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* It is rather curious that one of the poets should have exhibited a practical proof of what I am here contending for, when he wrote

——— at some dear idle time,
Nor plagued with head-ache, or the want of rhyme. POPE.

THE MANNER IN WHICH DROWNING EXTINGUISHES LIFE.

It was formerly believed that asphyxia from drowning always depended upon the lungs and intestinal canal being filled with water; whereas it is hardly necessary to observe, that it alone depends on the blood, in consequence of the suspension of breathing, ceasing to possess the qualities which are essential to the preservation of life. M. Gauteron immersed a dog for more than a quarter of an hour without inflicting the least injury, having previously inserted a long tube in the trachea, which was kept elevated, during the experiment, above the surface of the water.

If a small animal be immersed in water, contained in a transparent glass vessel, the phenomena of drowning are readily discernible. There is first, a deep expiration, by which bubbles of air are expelled from the lungs; there is then an effort to respire, but the effort is ineffectual; there being no air which can be received into the lungs, and a spasm of the muscles of the glottis seems to forbid the admission of any considerable quantity of water into the trachea. The attempts to breathe are repeated several times, and at each attempt at expiration a small proportion of air is expelled from the mouth and nostrils, until the air-cells of the lungs are almost emptied; then the animal becomes insensible, and convulsive action of the voluntary muscles mark the instant when the brain begins to suffer from the influx of the dark-coloured veinous blood.

After the cessation of these convulsive actions, the animal becomes motionless, and gives no sign of life; but if the hand be applied to the thorax, the actions of the heart, gra-

dually becoming fainter and fainter, indicate that some remains of vitality still linger in the system. Before the circulation of the blood altogether ceases, the muscles of respiration once more resume their actions, and ineffectual efforts are made to breathe. It is a remarkable circumstance, that the diaphragm continues to exert itself nearly as long as the heart itself, and that the interval between the cessation of the motions of the diaphragm and that of the motions of the heart, which is so short in animals that die by strangulation, is still shorter in those who perish by drowning. These phenomena follow each other in rapid succession, and the whole scene is closed, and the living animal is converted into a lifeless corpse, incapable of recovery, in the brief space of a few moments. If, however, the animal be taken out of the water before the total extinction of life, and the diaphragm contract afterwards, so as to draw air into the lungs before the action of the heart has ceased, the circulation is maintained, and the animal continues to respire: he will thus have escaped immediate death from suffocation, but his life still remains in jeopardy; for there is a second period of danger, and one at which death may take place when we are the least prepared to expect it; for the dark-coloured blood, which has been transmitted through the circulatory system during the suspension of respiration, would seem to act like a narcotic poison upon the brain: no sooner, therefore, does it enter that organ, but deleterious effects are produced;—the animal at first falls into a state of stupor, the pupils of his eyes become dilated, the respiration laborious, the muscles of the body convulsed, and the animal dies, *poisoned by its own blood.*

The body of a person who has died from drowning, exhibits a physiognomy which it is important to notice. The whole surface is distinguished by a remarkable coldness and pallor; the eyes are half open, and their pupils considerably dilated; the tongue is pushed forward to the internal edges of the lips, and sometimes wounded; and the mouth and nostrils are covered with foam. At other times, instead of a pallid visage, we have one that is swelled, and bloated with livid blood.

Upon dissection, we shall perceive the vessels of the brain more or less gorged with blood; in the trachea a watery and bloody froth will be found; the lungs will appear expanded, full of frothy mucus, and generally livid; the right cavities of the heart gorged with blood, the left nearly empty: and it has been sometimes noticed, that the blood remains fluid, and follows after every incision by the scalpel. The stomach will generally be found to contain some water. Hebenstreit also states, that, since in the act of drowning the person dies on an inspiration, the diaphragm is necessarily found convex, or bent towards the abdomen: this statement, however, is erroneous.

Upon these appearances we have a few observations to offer, especially as they have given origin to some important questions; and first with respect to the presence of water in the stomach and lungs, than which few indications, connected with the subject of drowning, have given occasion to greater controversy. For since it hath been observed that water is rarely found in the stomach or lungs of a person who has been submerged after death, it was inferred that the presence of that fluid in these organs necessarily proved that the individual must have been plunged into the water during life. As a general proposition, this may be admitted as correct, although it is liable to certain exceptions, with which the medical jurist ought to be acquainted: we may, for instance, suppose a case, in which the submerged person may be so plunged at once under water, as to have been suffocated without his previously coming to the surface; and, when asphyxia has taken place, the powers of deglutition, on which the presence of water in the stomach wholly depends, are at an end; or we may suppose that the party in question faints from terror. A re-

markable instance of this kind is quoted by Foderé, from Plater, of a young woman, who, having been condemned to be drowned for infanticide, fainted at the moment she was plunged in the water, and, having remained for a quarter of an hour under the surface, recovered after being drawn out.

With respect to the presence of water in the bronchiæ and lungs, we may observe that, in the violent struggles of a drowning man, a certain portion of water generally passes the epiglottis; and being immediately mixed with the air and mucus of the trachea, constitutes that frothy mucus which we have described as being so highly characteristic of this species of violent death; although we are not to conclude, with Larrey, that it is the immediate cause of dissolution in such cases. The quantity of water, however, thus forced into the pulmonary structure, is extremely small, for its entrance is so powerfully opposed by a spasm of the muscles of the glottis, were it to occur in any considerable quantity, and to appear in its fluid state, instead of that froth, the inference would clearly be, that it had passed in after death.

Although the presence of this frothy matter must be considered as a strong presumptive proof that the person found in the water had perished by drowning, the converse of this proposition is by no means established by the absence of such an indication.

THE REASON WHY DEAD BODIES FLOAT

Is another point in the history of drowning, which has occasioned much discussion; and in solving the problem, so highly important in its forensic relations, whether a body found in the water had been drowned, or thrown in after death, it has been considered by some physiologists as capable of affording a certain degree of presumptive evidence, although we are inclined to attach but little or no importance to such an indication. The specific gravity of the human body, under ordinary circumstances, is very little greater than that of fresh water; so small, indeed, is the difference, that when the lungs are inflated, a man will float with little or no effort, if he have sufficient self-possession, and does not attempt to raise too great a portion of his body out of the sustaining fluid: but when the air of the lungs is expelled, and probably at the same time a certain quantity of water is taken into the stomach, the body becomes specifically heavier, and the victim sinks. It may be assumed as a general rule, that no newly-drowned body floats, although many facts have been adduced in support of a contrary opinion.

The naval custom of loading dead bodies with weights before they were consigned to a watery grave, is not for the purpose of sinking the corpse, but for the preventing its rising after the process of putrefaction has commenced. The period during which a body will remain at the bottom, cannot be accurately determined, as the change does not take place until a sufficient quantity of air be generated to buoy it again to the surface. In the melancholy instance of the loss of the Royal George, the dead bodies were observed ascending to the surface of the sea, on or about the fifth day. The general position of a body which has thus risen, provided there be no external or adventitious circumstances to change it, is such, that it floats nearly immersed; the face, arms, and legs hanging downwards, and the loins being uppermost; this is the form which the body must mechanically and hydrostatically assume, if the sustaining power of generated air be (as it generally will) in the cavity of the abdomen, where putrefaction is more likely to commence; for the head and limbs are generally specifically heavier than water, while the trunk, especially if inflated with air, is somewhat lighter.

It has been said, that a position, different from that which we have just described, will take place when the person has been strangled, and the body then thrown into the water; for in this latter case, it is contended

that the lungs will be distended with air, and that consequently, the sustaining power must be in the thorax. In support of this opinion, the story of the appearance of Caraccioli, admiral of the Neapolitan navy, has been ingeniously adduced. This unfortunate man was hanged in pursuance of the sentence of a court-martial, and the body was committed to the deep in the usual manner. Thirteen days after, while the King of Sicily was walking on the deck of Lord Nelson's ship, he suddenly exclaimed, with a cry of horror, "*Vien! Viene!*"—The shot that had been attached to the feet of the corpse, for the purpose of sinking it, not being sufficiently heavy. This may perhaps be explained, by supposing that the corpse was stiff before it was immersed; in which case, the centre of gravity being exceedingly low, on account of the shot tied to the feet, he must have floated upright, wherever the buoyant power from generated air might be situated. At all events, we feel no hesitation in at once rejecting the proposition, in support of which it has been brought forward. The fact is, that in relation to gaseous contents, the lungs are the same in strangled as in drowned persons; for in both cases a quantity of air is forcibly expelled from them before dissolution.

TO THE EDITOR OF THE MEDICAL ADVISER.

CURE FOR RING-WORMS.

SIR,

For the benefit of your readers, I beg leave to communicate to you the following method of entirely eradicating that dreadful and disagreeable complaint,—RING-WORM.

My boy came home from Gloucestershire in a dreadful state with it; and after having the advice of several medical men without effect, we entirely eradicated them in the following manner:—We had his head shaved and well washed with *soft* soap and warm water at night; dusted the head well with powder of sulphur in the morning; washed it very clean off with the soft soap again at night, and applied ink to the worms. In about ten days they entirely disappeared:—to one or two of the worms that were very bad, we applied a little soft soap spread on rag. Now, whether the sulphur, the ink, or the soft soap had the effect, I cannot tell, but his head is, and has been as clear as possible ever since, which is now two years.

Sir, yours, &c.

FRANCIS HILTON.

Walbrook, 12th Aug.

Our correspondent will accept our thanks for the above communication. The cure in question was the result of the chemical combination of all the substances applied; and we recommend the plan to others.

TOILETTE OF FLORA.

NO. VI.

PREVENTIVE WASH FOR SUN-BURN.

Take of borax, two drachms;
Of alum, one drachm;
Of camphor, one drachm;
Of sugar-candy, half an ounce;
Of ox-gall, a pound:—

Mix and stir well for ten minutes, and repeat this stirring three or four times a day, for a fortnight, till it appears transparent; strain through blotting paper, and bottle for use. Wash with it every time you go into the sunshine.

LEMON CREAM, FOR SUN-BURNS AND FRECKLES.

Put two spoonfuls of sweet cream into half a pint of new milk; squeeze into it the juice of a lemon; add half a glass of brandy, and a little alum and loaf sugar:—boil the whole, skim it well, and when cool, put it aside for use.

GRAPE JUICE, FOR SUN-FRECKLES.

Dip a bunch of green grapes in a basin of water, and then sprinkle it with alum and salt, powdered and

mixed; wrap the bunch in paper, and bake it hot ashes; then express the juice, and wash the face with it.

This is said to be capable of removing sun-burn, tan, and freckles.

TO OBTAIN A GOOD COLOUR IN THE FACE.

Observe to have one motion every day, whether by medicine or not; rise early; and wash first with soft water and soap, and then immediately with hard water.

BURSTING OF THE HEART.

M. BAYLE relates the case of a lady, aged 68, corpulent, who in the time of the revolution had experienced a great reverse of fortune, but who had for a long time been restored to comfort, and had enjoyed good health. Some time since, having a slight degree of fever, she consulted a physician, who found her with a slight cough and difficulty of breathing, the pulse not much accelerated and quite regular; the chest sounded well on percussion throughout, and the contractions of the heart were natural; she was rather constipated, and had been accustomed yearly, every spring, to catarrhal affections, which usually lasted about a week. She also said that she had, for upwards of twenty-five years, a tumour in the left side, which she considered as the remains of a dropsical affection, with which she was afflicted at that time. This swelling sometimes produced great pain, and she supported it with a laced bandage. The medical man tried in vain to find this tumour,—it only appeared when she stood upright. The patient also complained that within the few previous days, she had experienced in the night an extraordinary degree of agitation, accompanied with beating of the arteries of the head, and a degree of moral irritation she could not account for. She could not then sleep; was perfectly conscious of these feelings, and laughed at them in the morning.—The symptoms of catarrh and cough gradually yielded; and in about a fortnight, no remains of disease were perceptible, except a slight heat of the skin, and increased frequency of the pulse. Four days after, in the evening, having been up all day, and no longer considering herself a patient, whilst occupied in arranging some things in her wardrobe, on a sudden she was heard to scream out, and in the same moment she fell without a sign of life.

Many circumstances prevented the body being examined before the burial; but it was inspected six days after death, and four days after the funeral. The body was then found to be in a state of putrefaction, and gave out an extremely nauseous smell, which was much controlled by aspersions of the chloruret of lime; and they found (as they might have readily known during the life of the patient) that there was really no tumour in the abdomen; the swelling arising from an abdominal hernia. In the chest, they found the membraneous bag which holds the heart containing two coagula of blood, of about three ounces in weight; and the anterior face of the left ventricle presented, at about an inch from the apex, an oval opening, a quarter of an inch long, and about three lines in breadth; its borders were ragged and torn, and the substance of the heart seemed softer in that part than elsewhere. Within, this opening was covered with a brownish fibrous concretion, mixed with the carniæ columnæ.

CHEAP SUBSTITUTE FOR CASTOR OIL.

M. HUFELAND asserts, that by mixing one drop of the oil of croton with an ounce of syrup of poppy, a preparation is obtained, resembling in a great degree, the castor oil, and of which one spoonful produces analogous effects. Many successful experiments have been made with this preparation in the Polyclinic School, at Berlin.

INFLUENCE OF THE MOTHER'S IMAGINATION ON INFANTS BEFORE BIRTH.

BY MR. TOONE, SURGEON, OF SALISBURY.

I BEG, says the author, to be permitted to offer a few remarks upon the much disputed point of the influence of the imagination in pregnant women, and the effect of external impressions upon the fœtus in utero.

The extent to which many women, for interested purposes, and others from ignorance, are disposed to carry the idea of this susceptibility, is unwarrantable, and often truly mischievous; yet, on the other hand, it can scarcely be denied, that during pregnancy the imagination does, in some cases, seem to exercise a very extraordinary influence upon the formation of the child, and that this is occasionally very materially affected by external impressions. Indeed, from circumstances which have occurred in my own practice, so strongly is this opinion entertained by me, that whenever the mother, during the period of gestation, has related any remarkable transaction which has been forcibly impressed upon her mind, or any accident of an extraordinary nature which has befallen her, I have seldom been mistaken in my expectation of some defect or malformation of the child.

The following cases are selected to illustrate the foundation of this opinion :—

Mrs. D. of B——, when far advanced in her first pregnancy, was accidentally passing at the moment when a child fell under a waggon, the wheels of which went over it, fracturing both arms, both legs, and so severely injuring the trunk, as to cause its almost instant death. The little sufferer was taken up in her presence, with its mutilated limbs dangling uselessly from it. She was most violently affected by the accident; and after some time, was delivered of a daughter, whose limbs were at the moment of birth, and have subsequently (after a lapse of twenty-five years) continued to be in a state of laxity and perfect uselessness; precisely similar in appearance to that of the injured child.

Mrs. B. of Fisherton, was alarmed, during her pregnancy, by going to answer a knock at her door, from one of the Italian itinerant showmen, who thrust the hind part of a racoon nearly in her face. On delivery, her child had extensive spina bifida, with peculiarly emaciated buttocks and lower extremities.

Mrs. N. of Catherine-street, was standing at her door during the passing of an election cavalcade, when a girl of the town, with a most terrific hare-lip, thrust her face nearly into contact with that of this lady, who fainted from the shock. Some months afterwards, she was delivered of a remarkably fine and well-formed child, with the exception of a deep hare-lip.

Mrs. C. of Endless-street, returning home one evening, in about the seventh month of her pregnancy, missed the bridge before her door and fell into the water: the inconvenience which she felt from the fall was slight. On delivery, the ossification of the parietes of the cranium was so imperfect, that a congeries of small detached portions, like lentils, were alone perceptible. The head and neck of the left thigh-bone was also separated from its shaft, in the centre of which another fracture was discovered. It is worthy of remark, that the father of this child was born in precisely the same state, as to the thigh, which has been subsequently frequently fractured anew.

The first case, Mr. T. observes, is authenticated by an intimate acquaintance with the family in which it occurred, and the rest came immediately under his own notice, in the whole of their progress.

Women in a state of pregnancy should learn, if possible, to treat lightly every circumstance which may have caused either their fear or wonder; and we think that too much caution cannot be observed in keeping out of the way of strange sights during the whole term of pregnancy.

CAUTIONARY REMARKS ON SWIMMING.

THIS delightful exercise has been beautifully described by Thompson; but it falls within our limits only to guard those who practise it, from the disadvantages which may attend its misuse.

It is a delusive but specious argument, that as the natives of tropical regions lead almost an amphibious life, we may also spend much time in the water with impunity. The small difference in the heat of the water from the air in which they live, and the unctuosity of their skins, renders swimming and continued immersion in the water a pleasurable and salutary exercise. But in our own climate it is certainly no less true, that, except during three or four months of the warmest season of the year, this example, if imitated, would be productive of very hazardous consequences.

If the temperature of the water be much inferior to that of the system, corresponding demands will be made on the inherent powers of life, to restore the loss sustained. Every such act of compensation is attended by an equal diminution of living energy; for it is a condition of vitality, that disproportionate exertion should be succeeded by depression and exhaustion of power.

The celebrated Dr. Franklin, who himself passed much of his time in the water, and whose feats and evolutions in that element have not, perhaps, been surpassed in modern times, states, that the danger in bathing arises from the abrupt transition in throwing the body into the cold water when it is excessively heated. His opinion is thus expressed:—"During the great heats of summer there is no danger in bathing, however warm we may be, in rivers which have been thoroughly warmed by the sun; but to throw one's self into cold spring water, when the body has been heated by exercise in the sun, is an imprudence which may prove fatal. I once knew an instance of four young men, who, having worked at harvest in the heat of the day, with a view of refreshing themselves, plunged into a spring of cold water: two died upon the spot, a third the next morning, and the fourth recovered with great difficulty. A copious draught of cold water, in similar circumstances, is frequently attended with the same effect in North America. The exercise of swimming is one of the most healthy and agreeable in the world. After having swam for an hour or two in the evening, one sleeps coolly in the night, even during the most ardent heat of summer. Perhaps the pores being cleansed, the insensible perspiration increases, and occasions this coolness.

"It is certain, that much swimming is the means of stopping a diarrhœa, and even of producing a constipation. With respect to those who do not know how to swim, or who are affected with a diarrhœa at a season which does not permit them to use that exercise, a warm bath, by cleansing and purifying the skin, is found very salutary, and often effects a radical cure."

We have thus quoted at length the remarks of so sagacious and correct an observer on the subject of bathing, as they are in accordance with more recent experience, although his theory must be, perhaps, admitted with some caution.

In another communication to the same learned friend, the Doctor afterwards qualifies his recommendation of spending much time in swimming, &c. in these terms:—"The shock of the cold water has always appeared to me, generally speaking, as too violent; and I have found it much more agreeable to my constitution to bathe in another element—I mean the *cold air*." It may be necessary here to state, that although the persons said to have been injured by immersion in cold water, were heated at the time, yet that their being heated was not the circumstance which chiefly exposed them to the danger. The excess of heat was only a concomitant of a series of effects, which predisposed them to the injury.

It was the depressed and languid condition of the organs of life, by long continued exercise, which occasioned the danger. In this weakened state, the body suffers a considerable abstraction of its vital warmth; and the already enfeebled and overacted organs are called on to compensate for the deficiency, and are overpowered in the struggle. It is very important that this distinction should be made known; for, under the idea that bathing, when the body is heated, may prove detrimental to the health, or even fatal, it is too frequently the custom to adopt the contrary extreme, and stand shivering on the margin of the bath until sufficiently cool before the step is taken.

"Awhile he stands
"Gazing the inverted landscape, half afraid
"To meditate the blue profound below."

It should be invariably a rule, to immerge while the body is in a full glow of warmth, which has not been preceded by exercise inducing weariness or fatigue. In this high tone of the system, the living actions, though momentarily checked by the cold impression, acquire a rebound, which disperses the vital fluids thro' all their meandering circuits, and diffuses a genial warmth and renovated energy over every part of the animal machine.

"At once into the tide
"Active he bounds: the flashing waves divide."

It may not be improper here to advert to the period which a person may remain immersed without sustaining injury. Much will depend upon the temperature of the medium, and of the circumambient air; but much more, probably, on the degree of energy possessed by the person himself.

As the enquiry is of considerable interest, as relating to the best means of encountering the dangers arising from shipwreck, &c. a few remarks on it, as bearing on our subject, will be appropriate. The following account of the sufferings of the crew of a wrecked vessel, the important particulars of which we have abridged from Dr. Currie's interesting work, will lead to some useful practical conclusions.

An American ship was cast away on the 13th of December, 1790, on a sand-bank that lies in the opening of the River Mersey into the Irish Channel. The number of the crew was fourteen; but eleven only were taken up the next day by a boat sent to their assistance. These unfortunate men had remained nearly twenty-three hours on the wreck, the temperature of the air and of the sea being from 30° to 33°. Of the three persons that perished, one was the master of the vessel, and another, a passenger, both robust and strong, and one of them a native of Scotland, a young man, inured to hardships, and vigorous both in body and mind; the third was the cook, a weakly man who died a little before the boat reached the wreck.—The early death of the masters excited some attention. There was no liquor or food of any kind saved, and all the crew were on an equality, except that the masters had the supposed advantage of sitting on that part of the wreck that was out of the sea, while the rest were deeper in the water; and a poor negro, who suffered least of all, was deeper in the sea than any. The masters were generally out of the sea, but frequently overwhelmed with the surge, and at other times exposed to heavy showers of sleet and snow, and to a high and piercing wind.

The master of the vessel died delirious about four hours after the ship struck, and the other master died at eleven, in a similar state.*

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* It is now pretty generally ascertained, that the immediate forerunner of the approach of death in cases from extreme cold, is a delirium, with trains of wandering ideas,

Those who survived were not able to change their posture, but kept their legs in constant motion, to counteract the cold, their arms being employed in holding by the wreck.

On reflecting on this melancholy story, Dr. Currie very correctly observes, that the death of the masters was to be imputed to their situation on the wreck: they experienced more cold from being wet with fresh rather than salt water, as they were exposed to heavy showers of sleet and snow, the chilling effects of evaporation, and the alternation of media surrounding them.

We learn from this account—1st. The greater safety of being wet with salt than with fresh water:—2dly, That a constant immersion in the sea is far less detrimental than being alternately washed by the sea and exposed to the air: the early death of the two masters may be safely attributed to their being so situated; and it was remarked, that Mr. Amyatt, the mate, an intelligent young man, suffered from cramps and knots in the muscles of the side and hips, which were occasionally out of the sea and exposed to the atmosphere.

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and incoherent and involuntary expressions. The coincidence of this state and the delirium of fever, though in seemingly opposite conditions of the body, shews an affinity in their cause, viz. an increased flow of blood to the vessels of the brain.

"The delirium of fever," says Dr. Parry, "resembles dreaming.—The patient, when left to himself, though often lying with his eyes open, is little, if at all, sensible of the objects around him. He is, as it were, asleep, having automatic (involuntary) trains of thought, and perhaps occasional chimerical perceptions"

In the cases before us, the continued impressions of cold triumphed over the re-acting forces; and the vascular parts of the vital organs, especially the brain, were overwhelmed with the tide of blood transmitted from the ramuscular vessels of the surface; and delirium, and ultimately death, terminated the contest.

DISEASES OF ARTIZANS.

NO. 5.

BAKERS AND MILLERS.

HIPPOCRATES says, there are very many arts and callings (physic may be reckoned one of the number,) which are very useful and pleasant to those who stand in need of their assistance, but occasion a great deal of trouble and labour to those who practise them. And such is the trade of baking; for what is more useful and even necessary to life than bread? and what can be more inconvenient and troublesome to tradesmen than the baking of it? For in sifting the flour, in kneading it into dough, and in baking that in the oven, they are in all these steps exposed to infinite fatigue and toil, and so brought under the lash of various diseases. Bakers are generally at work in the night-time, whilst others, having finished the task of the day, are recruiting their spirits with seasonable sleep; and then in the day-time are shut up like owls to take their rest: so that in one and the same city, we have antipodes, that is, such as follow contrary ways of living; and indeed, when day dawns, and the people return to their daily exercises, there is a necessity of having plenty of bread ready at hand. History affords us signal instances of violent commotions raised in great cities by a scarcity of bread. Formerly the court of Spain was under apprehensions of a popular insurrection upon that account.—Hence Juvenal recommends bread and the *ludi circenses* (that is, plenty of provisions and diverting shows) as the most effectual means to keep the people to their duty.

In the first place, those who boult the flour and cleanse it from the bran, and are always shaking and turning the sacks and bags, cannot possibly cover their faces so as to avoid the

inspiration of the flying particles of the meal together with the air; and these being fermented with the salivary juice, stuff up not only the throat, but the stomach and the lungs, with a tough paste; by which means they become liable to coughs, shortness of breath, hoarseness, and at last to asthmas; the windpipe and the passages in the lungs being lined with a crust which interrupts the intercourse of the air. Further, the particles of the flour or meal, which adhere to the eyes, pinch them very much, and often occasion what is called blear-eyes.

We freely own, we cannot think of any effectual preservatory caution for these workmen. We approve of the custom they sometimes adopt of tying a linen swath round their face: but that will not hinder the atoms of flour from entering the breast along with the air. Pignorius in his excellent Treatise de Servis, quotes the authority of Athenæus, to prove that this custom is very ancient; but it is plain they did not do it out of any preservative design, but to prevent the perspiration dropping off their faces upon the bread, or the tainting of the bread with their breath. In fine, all we can advise these workmen to do, is to wash their throat frequently with vinegar and water; to take oxymel of squills often; to purge now and then; and when they are pressed with a difficulty of respiration, to take an emetic, which will throw off the matter which clings to the passages. We have known an emetic to cure some who were reduced to the last extremity.

Next in order are those who knead and work the paste with their hands, and form it into bread and loaves. These men do their work commonly in hot places, especially in winter, to promote the fermentation of the bread; and so having occasion, when their work is over, to go from places of extreme heat into the open air, are readily seized with a violent constriction of the pores of the skin, which in process of time, gives rise to a dull heaviness, hoarseness, and diseases of the breast, such as pleurisies and inflammations of the lungs. Of these diseases we have treated and given the remedies calculated to cure them: but in curing them it is of no small use to know, and have a particular regard to the occasional cause; and for that reason, in the case now before us, we must chiefly endeavour to retrieve the natural perspiration of the body, by keeping the patient in a warm room, using frictions with oil, and exhibiting diaphoretics inwardly. We have observed, with some surprise, and that among this sort of men more than among persons of other trades, that violent pleurisies have been terminated by a plentiful perspiration, even in the beginning of the disease, without any manner of spitting: and this, in our opinion, comes to pass, because in such cases, the acute fever, which is the primary disease, accompanied with pain in the side, takes rise rather from the external cause, which is the sudden stoppage of the pores of the skin, than from a faulty collection of humours; so that, when the pores of the skin are open, and perspiration breaks forth, the fever and pleuritic pain vanish at once; the matter, which had been thrown in upon the breast, being thus recalled to its wonted passages. So important is that advice of Hippocrates—to come to the cause and the beginning of the cause.

Sometimes the hands of the bakers are swelled and pained: and indeed it is observable, that all of them have very large thick hands, which is owing to the continual kneading of the paste, which squeezes the nutritious juice in great abundance out of the orifices of the arteries; for the juice remains there, its return being prevented by the stricture of the fibres. So that bakers quickly discover their trade, when they shew their hands, for no tradesmen have larger hands than they. Exercise, as Avicenna says, enlarges certain members; and the truth of that saying is manifest in other parts. To conclude, we would advise those, whose hands are swollen and pained, to wash them in lie, generous white wine, and the like.

Of all the retainers to the baking trade, perhaps those who only bake the bread in the ovens are least exposed to injuries; for, though they suffer not a little from the excessive heat in filling and drawing the oven, especially in summer, while they are covered all over with perspiration, yet they are much refreshed with the smell of the hot bread; for new bread is a great restorative, and exhilirates the spirits with its very smell, as Wedelius remarks, *de sale volatili planarum*, and Becherus in his Physica Subterranea, where he prefers the smell of bread to the comforting virtue of pearl.

We have observed, that the bakers of large populous cities, the inhabitants of which choose rather to buy than to bake their own bread, are oftener sick than those of small towns and villages, where almost every family bakes for itself. Pliny informs us, that, from the building of Rome to five hundred and thirty years after, the Romans had no bakers; but the Quirites themselves had their own bread made at home, that being the women's province: but that afterwards, when the city grew populous, the trade of baking was brought in by the public slaves. When such workmen, therefore, are ill, let their disease be what it will, we must carefully remember the disorders they are exposed to in the way of their business.

We throw the millers or grinders of corn, into the same list with the bakers; for when the corn is reduced to fine flour, the particles fly about and fill the whole mill; so that their mouth, nostrils, eyes, ears, and indeed the whole body is covered with meal; the consequence of which is, that many of them become asthmatic, and at last dropsical. They used likewise to be seized with ruptures by the breaking or relaxation of the membrane that lines the belly, in carrying sacks of corn or meal upon their shoulders; and, being obliged to lie night and day in the noise of water-falls, wheels, and grinding places, almost all of them are a little deaf; for the drum of the ear, being perpetually struck with too strong an object, loses its tone and spring.

These tradesmen were subject to more violent distempers in ancient times than they are now. For the ancients had not such machines for grinding corn as we now have, by the help of water-falls; though, indeed, Palladius, an ancient author, makes some mention of the grinding of corn by the force of water. They used to grind their corn in pistrina, which is now used for bruising and taking the husks off grain. Their wheels were turned not only with cattle, but with men, and slaves, and women; and from thence rose the name of *Molæ trusatiles*, handmills, because they turned them round *(Trudebant)* with all their force. Criminals were commonly condemned to this work at the pistrinum. Apuleius says, he was made an ass, tied to a mill with his face covered, and forced to tread over his own footsteps. We read in sacred writ, that Sampson had his eyes put out by the Philistines, to qualify him for the turning of a mill, (which was probably a handmill) for they used to put out the eyes of such as were doomed to this service, to prevent their being giddy.

It is plain therefore, this was a very laborious exercise, that both men and women were doomed to, and that it would quickly kill them, by subjecting them to dismal disorders. Hence Job, among other imprecations, to complete his misery, puts in this:—"May my wife grind to another;" that is, as Vatablius and other interpreters take it, "Let her become a mean servant or slave;" though, indeed, some take it in an obscene sense; upon which subject see Pfeiferus in his Hebrew Antiquities. The Romans had likewise great numbers of pistrina; nay, every quarter or ward of Rome had a determined number allotted it; as Victor observes, *de Urbis Regionibus*. But now that water-mills are so common every where, the pistrina are only used for bruising or splitting of grain. And so, the yoke of slavery being likewise taken off by the Chris-

tian religion, the grinding trade is not so hard and laborious, nor yet so apt to occasion distempers as in former ages.

Both millers and bakers require the same method of cure, when the disorder takes its rise from the volatile flour sucked in at the mouth. If they are seized with ruptures upon carrying heavy burdens, let them wear trusses; and indeed we usually advise them to wear trusses likewise by way of prevention.

As we said before, washing the mouth well with vinegar and water, and drinking a small portion of that or cyder, should be frequently observed; and above all, whenever any of these trades become in the slightest degree feverish, the following emetic should be taken.

EMETIC.

Take of ipecacuanha, twenty-five grains;
Mix with a little water, and add a drachm of the tincture of squills, and two grains of tartar emetic.

DESCRIPTION OF PLATE IV.

MUSCLES OF THE BODY, VIEWED IN FRONT.

A The pectoralis takes its origin from the whole of the sternum, on each side, and from the sixth, seventh, and sometimes eighth ribs, and is inserted in the upper part of the humerus, between the deltoid and the biceps; all its origin is marked *O*, and its insertion *X*. There is another muscle beneath, called the little pectoral, which serves to bring the scapula forward; with its action it causes it to appear swelled or thickened at the part marked 6.

B The rectus abdominus takes its origin from the os pubis, and is attached to the side of the xyphoid cartilage; it draws the body in before, and is its support when it leans backwards; it has several insertions, which have as many bands or fillets in order to strengthen it. It is commonly divided into five intersections, which are marked like steps, and are at nearly equal distances: there are three from the navel upwards, and two below; that in the middle is the largest. The oblique muscles assist it in its action.

DOMESTIC PHARMACY.

NO. I.

PURGATIVE MIXTURES.

Mixture A.

Take of Epsom salts, or Glauber's salts, an ounce and a half;
Of infusion of senna, eight oz.;
Mix.—Dose, two ounces every second hour, until the bowels become free.

Mixture B.

Take of castor oil, an ounce and a half;
Of mucilage of gum arabic, one ounce;
Mix, and add gradually
Of mint-water, five ounces;
Of white sugar, a quarter of an ounce; and of this make a mixture.
The dose is an ounce and a half.

PURGATIVE POWDERS.

Powder C.

Take of jalap, half a drachm;
Of cream of tartar, two scruples;
Of ginger, eight grains;
Mix.—This is one dose for an adult.

Powder D.

Take of calomel, five grains;
Of jalap, a scruple;
Mix.—This is one dose for an adult.

PURGATIVE DRAUGHTS.

Draught E.

Take of Epsom salts, three drachms;
Of infusion of roses, eight drachms;
Of diluted sulphuric acid, ten drops;
Mix.

Draught F.

Take of infusion of senna, an ounce;
Add of cream of tartar, two drachms;
Mix.—Shake the bottle.

PURGATIVE PILLS.

Pills G.

Take of calomel, five grains;
Of extract of colocynth, ten grains;
Mix, and make into three pills, one every hour until they operate.

Pills H.

Take of aloes powdered, two drachms;
Of soap, one drachm;
Of oil of peppermint, six drops;
Of mucilage of gum arabic, sufficient to make all into a mass, and divide into thirty-six pills.
The dose is from two to four.

THE ARDENT OR BURNING FEVER.

WHEN the blood is solely and strongly inflamed, without an attack on any particular part, this fever, which we term hot or burning, is the consequence.

The signs which make it evident are a hardness and fullness of the pulse, in a higher degree than happens in any other malady; an excessive heat; great thirst; with an extraordinary dryness of the eyes, nostrils, lips, tongue, and throat; a violent head-ache; and sometimes a raving at the height of the paroxysm, or increase of the fever, which rises considerably every evening. The respiration is also somewhat oppressed, but especially at a return of this paroxysm, with a cough now and then; though without any pain in the breast, and without any expectoration or coughing up. The body is costive, and the urine very high coloured, hot, and small in quantity. The sick are also liable to start sometimes, but especially when they seem to sleep; for they have little sound refreshing sleep, but rather a kind of drowsiness, that makes them very little attentive to, or sensible of, whatever happens about them, or even of their own condition. They have sometimes a little perspiration or moisture; though commonly a very dry skin; they are manifestly weak, and have either little or no smell or taste.

This disease, like all other inflammatory ones, is produced by the causes which thicken the blood, and increase its motion; such as excessive labour, violent heat, want of sleep, the abuse of wine or other strong liquors, the long continuance of a dry constitution of the air, excess of every kind, and heating inflaming food.

The patient, under these circumstances,

1. Ought immediately to be put upon a regimen; to have the food allowed him given only every eight hours, and in some cases, only twice a day; and indeed, when the attack is extremely violent, nourishment may be wholly omitted.

2. Bleeding should be performed and repeated, till the hardness of the pulse is sensibly abated. The first discharge should be considerable; the second should be made four hours after. If the pulse be softened by the first, the second may be suspended, and not repeated before it becomes sufficiently hard again to make us apprehensive of danger; but should it continue strong and hard, the bleeding may be repeated on the same day to a third time, which often happens to be the utmost repetition that is necessary.

3. A clyster should be given twice, or even thrice, daily.

4. His legs are to be bathed twice a day in warm water: his hands may be bathed in the same water. Linen or flannel cloths dipped in warm water may be applied over the breast and upon the belly; and he should drink regularly and plentifully of whey and cream of tartar water; and after the bleeding properly repeated, fresh air and the plentiful continuance of small diluting liquors generally establish the health of the patient.

5. If notwithstanding the repeated bleedings, the fever still rage highly, it may be lessened by giving a spoon-

ful of the following, every hour till it abate; and afterwards every three hours, until it become very moderate: —

Take of mindererus spirit, two ounces;
Of syrup of violets, half an ounce;
Of decoction of tamarinds, eight ounces:
Mix.

Bleeding from the nose frequently occur in this fever, greatly to the relief and security of the patient.

The first appearances of amendment are a softening of the pulse, (which, however, does not wholly lose its hardness before the disease entirely terminates;) a sensible abatement of the head-ache; a greater quantity of urine, and that less high coloured; and a manifestly approaching moisture of the tongue. These favourable signs keep increasing in their degree, and there frequently ensue, between the ninth and fourteenth day, and often after a flurry of some hours continuance, very large evacuations by stool; a great quantity of urine, which lets fall a pale reddish sediment, the urine above it being very clear, and of a natural colour; and these accompanied with sweats in a less or greater quantity. At the same time the nostrils and the mouth grow moist; and the brown and dry crust which covered the tongue, and which was hitherto inseparable from it, peels off of itself; the thirst is diminished; the faculties resume their clearness; the drowsiness goes off; it is succeeded by comfortable sleep, and the natural strength is restored. When things are evidently in this way, the patient should be put upon the regimen of those who are in a state of recovery. Some patients have perfectly recovered from this fever, without the least sediment in their urine.

The augmenting danger of this fever may be discerned from the continual hardness of the pulse, though with an abatement of its strength; if the brain become more confused and the breathing more difficult; if the eyes, nose, lips, and tongue become still more dry, and the voice more altered: if to these symptoms there be also added a swelling of the belly, a diminution of the quantity of urine, a constant raving, great anxiety, and a certain wildness of the eyes, the case is in a manner desperate, and the patient cannot survive many hours.

The hands and fingers at this period are incessantly in motion, as if feeling for something upon the bedclothes; which is commonly termed, their hunting for fleas.

We should be careful throughout this fever to keep the bowels very free; and a solution of Epsom salts and water is sometimes preferable to any other medicine for the purpose.

OF PUTRID FEVERS.

HAVING treated of such fevers as arise from an inflammation of the blood, we shall here treat of those produced by corrupt humours, which stagnate in the stomach, or other bowels of the lower cavity, the belly, or which have already passed from them into the blood. These are called putrid fevers, or sometimes bilious fevers, when a certain degeneracy or corruption of the bile seems chiefly to prevail in the disease.

This fever frequently gives notice of its approach, several days before its manifest attack, by a great dejection, a heaviness of the head, pains of the loins and knees; a foulness of the mouth in the morning, little appetite, broken slumber, and sometimes by an excessive headache for many days, without any other symptom. After this, or these disorders, a shivering comes on, followed by a sharp and dry heat: the pulse, which was small and quick during the shivering, is raised during the heat, and is often very strong, though it is not attended with the same hardness, as in the preceding fever; except the putrid fever be combined with an inflammatory one, which it sometimes is. During this

time, that is, the duration of the heat, the head-ache is commonly extremely violent; the patient is almost constantly affected with loathings, and sometimes even with vomiting, with thirst, disagreeable risings, a bitterness in the mouth, and very little urine. This heat continues for many hours, frequently the whole night; it abates a little in the morning, and the pulse, though feverish, is then something less so, while the patient suffers less, though still greatly dejected.

The tongue is white and furred, the teeth are foul, and the breath smells very disagreeably. The colour, quantity, and consistence of the urine, are various and changeable. Some patients are costive, others frequently have small stools, without the least relief accruing from them. The skin is sometimes dry, and at other times there is some sensible perspiration, but without any benefit attending it. The fever augments every day, and frequently at unexpected irregular periods. Besides that great paroxysm or increase, which is perceivable in all the subjects of this fever, some have also other less intervening ones.

When the disease is left to itself, or injudiciously treated, or when it proves more powerful than the remedies against it, which is by no means seldom the case, the aggravations of it become longer, more frequent, and irregular. There is scarcely an interval of ease. The patient's belly is swelled out like a foot-ball; a delirium or raving comes on; he proves insensible of his own evacuations, which come away involuntarily; he rejects assistance, and keeps muttering continually, with a quick, small, irregular pulse. Sometimes little spots of a brown or of a livid colour appear on the surface, but particularly about the neck, back, and breast. All the discharges from his body have a most fœtid smell; convulsive motions also supervene, especially in the face; he lies down only on his back, sinks down insensibly towards the foot of the bed, and picks about, as if catching flies; his pulse becomes so quick and so small, that it cannot be perceived without difficulty, and cannot be counted. His anguish seems inexpressible: his perspirations stream down from agony: his breast swells out as if distended by fullness, and he dies miserably.

When this distemper is less violent, or more judiciously treated, and the medicines succeed well, it continues for some days in the milder stage described above, without growing worse, though without abating. None of these symptoms, however, appear, but, on the contrary, all the symptoms become milder; the paroxysms or aggravations are shorter and less violent, the head-ache more supportable; the discharges by stool are less frequent, but more at once, and attended with relief to the patient. The quantity of urine is very considerable, though it varies at different times in colour and consistence, as before. The patient soon begins to get a little sleep, and grows more composed and easy. The tongue disengages itself from its filth and furriness, and health gradually, yet daily, advances.

This fever seems to have no critical period, either for its termination in recovery or in death. When it is very violent, or very badly conducted, it proves sometimes fatal on the ninth day. Persons often die of it from the eighteenth to the twentieth; sometimes only about the fortieth; after having been alternately better and worse.

When it happens but in a light degree, it is sometimes cured within a few days, after the earliest evacuations. When it is of a very different character, some patients are not out of danger before the end of six weeks, and even still later. Nevertheless, it is certain that these fevers, extended to this length of duration, often depend in a great measure on the manner of treating them; and that in general their course must be determined some time from the fourteenth to the thirtieth day.

The treatment of this species of fevers is comprised in the following method and medicines.

1. The patient must be put into a regimen; and notwithstanding he be far from costive, and sometimes have even a small purging, he should receive one clyster daily. His common drink should be lemonade, (which is made of the juice of lemons, sugar, and water.) Instead of juice of lemons, vinegar may be occasionally substituted, which, with sugar and water, makes an agreeable and very wholesome drink in these fevers.

2. If there be an inflammation also, which may be discovered by the strength and hardness of the pulse, and by the temperament and complexion of the patient; if he be naturally robust, and have heated himself by any of the causes described above; he should be bled once, and even a second time, if necessary, some hours after. We must observe, however, that very frequently there is no such inflammation, and that in such a case, bleeding would be hurtful.

3. When the patient has drunk very plentifully for two days of these liquids, if his mouth still continues in a very foul state, and he have violent retchings to vomit, he must take the following

EMETIC.

Take of tartar emetic, five grains;
Of water, six ounces;
Mix.—Take two table-spoonsful every five minutes.

But this must not be taken, except we are certain the patient is not under any circumstance which forbids the use of a vomit: all which circumstances are particularly mentioned in the article, respecting *the use of such medicines, as are taken by way of precaution or prevention.* If the first doses excite a plentiful vomiting, we must forbear giving another, and be content with obliging the patient to drink a considerable quantity of warm water.—But if the former doses do not occasion vomiting, they must be repeated, as already directed until they do. Those who are afraid of taking this medicine, may take twenty-five grains of ipecacuanha, also drinking warm water plentifully during its operation; but the former is preferable, as more prevalent, in dangerous cases. We must caution our readers at the same time, that wherever there is an inflammation of any part, neither of these medicines must be given, which might prove a real poison in such a circumstance; and even if the fever be extremely violent, though there should be no particular inflammation, they should not be given.

The time of giving them is soon after the end of the paroxysm, when the fever is at the lowest. The first-mentioned emetic generally purges, after it ceases to make the patient vomit; but the other is seldom attended with the same effect.

When the operation of the vomit is entirely over, the patient should return to the use of lemonade or barley-water, and great care must be taken to prohibit them from the use of flesh-broth, under the pretext of working off a purging with it. The same method is to be continued on the following days as on the first; but as it is of importance to keep the body open, he should take every morning some cream of tartar, or a weak solution of Epsom salts and water.

4. After the operation of the vomit, if the fever still continue, if the stools are remarkably fœtid, and if the belly be tense and distended, as it were, and the quantity of urine be small, a spoonful of the following should be given every two hours, which checks the putridity, and abates the fever:

Take of antimonial wine, twenty drops;
Of water of acitate of ammonia, two ounces;
Of common water, eight ounces;
A little syrup of saffron;
Mix.

Should the distemper become violent, and very pressing, it ought to be taken every hour.

5. Whenever, notwithstanding the giving all these medicines as directed, the fever continues obstinate, the brain is manifestly disordered, there is a violent head-ache, or very great restlessness, two blistering plaisters must be applied to the inside and fleshy part of the legs, and their suppuration and discharge should be continued as long as possible. The head being shaved, and bathed in vinegar, will also much contribute to ease the patient; and in great delirium, a blister to the back of the head will be advisable.

6. If the fever be extremely violent indeed, there is a necessity absolutely to prohibit the patient from receiving the least nourishment.

7. When it is thought improper or unsafe to give a vomit, the patient should take in the morning, for two successive days, three doses of cream of tartar, at the interval of one hour between each. This medicine produces some bilious stools, which greatly abate the fever, and considerably lessen the violence of all the other symptoms of the disease. This may be done with success, when the excessive height of the fever prevents us from giving the vomit; and we should limit ourselves to this medicine, as often as we are uncertain whether the circumstances of the disease and the patient will admit of the vomiting; which may also be dispensed with in many cases.

8. When the distemper has manifestly and considerably declined, the paroxysms are more slight, and the patient continues without any fever for several hours, the daily use of the purging drinks should be discontinued. The common drinks, however, should be still made use of; and it will be proper to give, every other day, two doses of cream of tartar, which sufficiently obviates every ill consequence from this disease.

9. If the fever have been clearly off for a long part of the day, if the tongue appear in a good healthy state, if the patient have been well purged, and yet one moderate paroxysm of the fever return every day, he should take several doses of the decoction of bark between the end of one return and the beginning of the next, and continue this repetition some days. People who cannot easily procure this medicine, may substitute, instead of it, the bitter decoction of wormwood and chamomile, four glasses of which may be taken at equal intervals, between the two paroxysms or returns of the fever.

10. As the organs of digestion have been considerably weakened through the course of this fever, there is a necessity for the patient's conducting himself very prudently and regularly long after it, with regard both to the quantity and quality of his food. He should also use due exercise, as soon as his strength will permit; without which he may be liable to fall into some chronical and languishing disorder, productive of considerable languor and weakness.

DESCRIPTION OF PLATE V.

NAMES OF THE BONES FORMING THE SKELETON, VIEWED IN FRONT.

No. 1. The sternum, divided into six bones.
2. Xiphoid cartilage.
3. The external face of the ribs.
4. The cartilages of the ribs.
5. The right clavicle.
6. Its articulation with the sternum.
7. Its articulation with the acromion.
8. The acromion.
9. The coracoid process of the scapula.
10. Head of the humerus.
11. The superior part of the humerus.
12. The vertebræ of the neck, or cervical vertebræ.
13. The lumbar vertebræ.
14. The os sacrum.
15. Ossa innominata.
16. The pubis.
17. The ilium.
18. Ischium.

FORMATION AND STRUCTURE OF THE TEETH, AND TEETHING IN INFANTS.

THE teeth consist of two parts: osseous matter, the same as other bone; and enamel, their peculiar covering, which gives them their whiteness and polish of surface. Each tooth may be properly divided into three parts:—

First,—The crown, or that part which projects from the gum, and is the only division which possesses the covering of the enamel.

Secondly,—The neck, or that part where the enamel immediately terminates, and to which the gum is closely attached.

Thirdly,—The fang, enclosed by the socket, and inserted deeply into the jaw.

At the point of the fang there is a small opening, placed for the passage of nerves and vessels, which are ramified or spread out on the lining of the opening within the tooth. In this manner the circulation and sensation of each tooth are supplied. The fang is, therefore, an important part, and of the same value as the root to vegetables; preserving the tooth in its due position, and at the same time conveying to it the proper degree of nourishment.

Man differs from other animals in being provided with two sets of teeth: the first intended for the period of infancy, and consequently limited in their duration; the second intended for the remainder of life, and therefore of a stronger and more compact texture.

The teeth, in their first formation, unlike other bone, instead of having cartilage or membranous substance for their base, are formed from a soft pulpy matter resembling their shapes, and may be distinctly seen at the time of birth. As soon as they have attained their shape, grooves are formed, into which the surrounding vessels deposit the pulpy matter, constituting the rudiments of the future teeth.

At the age of five or six months, this pulpy matter has a regular arrangement, and is enclosed in membranous sacs or bags, ten in number, in each jaw, corresponding to the number of the temporary teeth. This first appearance is succeeded by ossific fibres shooting across and dividing the sacs into their respective compartments, which are the commencement of the future sockets. About the seventh month the ossification commences, both on the cutting edges of the first teeth, and on the prominent points of those situated farther back in the jaw.

At birth, the bodies of all the first set appear distinctly formed in each jaw; but at this time they are ossified only on the external parts, and the unossified pulp within is merely covered with shallow bone. As the teeth proceed in their ossification and shape, the investing membranes adhere more closely to their necks; and by this attachment they secrete and deposit over the crowns of the teeth a fluid, from which a very white substance is deposited upon the bone. This is the enamel, which is at first of a consistence not harder than chalk; but in age it acquires such a hardness, that a file in cutting it is soon worn smooth.

After birth, the growth of the teeth is rapid; and cannot, therefore, be confined long within the alveolar cavity or socket; they lengthen chiefly from the bodies; those of the under jaw downwards, and those of the upper jaw upwards. The parts that first lengthen are shaped into fangs; and as this takes place, the sockets grow round and more closely invest them. On the progressive ossification of the teeth, their original membranous coverings undergo the process of absorption, and are carried out of the system, having completed their original and destined purpose. In the progress of this growth of the teeth, a corresponding growth takes place in the sockets or alveolar plates; at first they grow much faster than the teeth themselves, which are consequently but loosely contained in them; and this rapidity of growth is necessary, both to render the soft gum capable of sustaining pressure, as well as to protect the embryo teeth from

injury. Hence, in the mode of their growth, it may be observed, that the outer edges of the socket or plates grow higher, and turn a little over in order to approach each other; the gum then hardens over;—and thus the teeth are fully protected, and the gums rendered sufficiently firm to undergo every necessary degree of pressure.

The protrusion of the first set of teeth begins as early as at the end of four or five months after birth, though in this there is a considerable variation; nor does this variation depend on the strength or delicacy of the child; for we often find that delicate children commence dentition very early; while on the other hand, strong children are very slow in acquiring their teeth: nay, there are some instances where children have shewn no appearance of teething till the fourteenth or fifteenth month. The general rule, however, is, that their protusion begins from the sixth to the eighth month after birth: the mode in which they effect a passage through the gums, is by the process of ulceration. The teeth pressing on the membrane which encloses them, occasions its absorption; and the pressure being next continued on the gum, causes that also to give way.

The order in which the teeth successively make their appearance, may be thus described: first, the two front incisores, or cutting teeth, of the under-jaw, one generally appearing a few days before the other; for, though formed in pairs, they seldom protrude at the same time. In about a month after, those are succeeded by the front incisores of the upper jaw. Next follow the lateral incisores of the under-jaw, and soon after those of the upper-jaw. A deviation from the order, hitherto observed, then takes place; and, instead of the cuspidati or canine teeth, which are next in succession, the anterior molares or double teeth, appear in the under-jaw; and these are soon after succeeded by those of the upper-jaw. Then follow the large molares, which completes the first or temporary set. The whole process occupies a period of about two years and a half.

Though this is the regular course observed by nature, there are, at times, exceptions to this order of protrusion; for, instead of the front incisores, the lateral incisores are discovered first through the gums, and the small molares before the lateral incisores. It may be remarked also, that children have been born with the two front incisores of the under-jaw through the gum, but such birth is always imperfect; these teeth possess no fangs, and are attached chiefly to the gum, which occasions pain and irritation to the child; on which account it is generally found necessary to extract them.

The period of dentition is often highly critical to the constitution of the child, as it not only occasions disease, but generally aggravates any other disorder which may occur at the time; yet it is well known that this period sometimes elapses unaccompanied by any particular symptoms of pain or uneasiness.

The appearance of the teeth is clearly an effort of nature, in which she effects the absorption of the investing membrane, alveolar process, and the gums, to make way for their passage; but the teeth sometimes advancing too rapidly, occasion a strong tension and pressure on the vessels of the gums, which produces pain and irritation in the surrounding parts. Hence the gums appear swelled and inflamed; a constant discharge of saliva takes place from the mouth; and often a general sympathetic fever prevails over the whole system.

At this stage of the fever, which frequently proves fatal, the treatment of the child, both as respects the parts affected, and the system in general, demands particular attention.

It is commonly recommended to allow the child some hard substance to press against the gums, which though it may afford a temporary relief, generally increases the inflammation and uneasiness. A more effectual means of relief would be afforded by producing a gentle friction

THE

MEDICAL ADVISER.

AN ACCOUNT

OF THE

LIVING SKELETON.

We have stopped the Press in order to record the arrival of this extraordinary creature, and that our Readers might be made acquainted, as speedily as possible, with the existence of a *lucis naturæ*, hitherto unrecorded in the annals of the world.

We were indefatigable in our endeavours to procure a sight of the personage in question; and at length succeeded through the kind offices of Mr. Robt Cruikshank, through whose acquaintance with Colonel Williams, to whom the world is indebted for this singular curiosity, we are put in possession of the *exclusive right* of describing this singular phenomenon. The short time allowed us having precluded the possibility of terminating the account in the present number, it will be finished in the next delivery, accompanied by a faithful sketch from the pencil of Mr. Robert Cruikshank, delineating the living skeleton now under review.

The name of the *Living Skeleton* (for by that title he was designated on the continent) is Claude Ambroise Seurat; he is a native of Troyes, in Champaigne, was born on the 10th of April, 1798, and is consequently twenty-seven years of age. His mother, who is dead, was of the middle stature, rather corpulent, or *en bon point*, as the father of Seurat informed us, when describing her, and who cannot speak a word of English. On inquiry as to whether any object had presented itself during her pregnancy, to create a fright, we were assured to the contrary, which was the more unlikely, in consequence of the mother having been very short-sighted.

The child, on coming into the world, presented the customary baby form, its features being handsome; but in proportion as the infant grew the frame gradually wasted away, and so continued to decrease until the attainment of its full stature, which occurred according to the usual term of life, at which period Claude Ambroise Seurat had attained his present height of five feet seven inches and a half, when his frame had dwindled to the living skeleton form it now personifies. Having been shaved, for the purpose of displaying the formation of the skull, in order to prevent the effect of cold he wears a wig, the colour of his eye-brows, which are a dark chesnut brown. The pupils of his eyes are large, full and penetrating; the whites very clear, and his sight strong; but the upper lids appear rather to weigh downwards, from a laxity of the muscles, added to which there is a glaziness in the sight, that conveys a something of ghastliness to the general appearance. A casual observer, however, on contemplating the physiognomy alone (the residue of Seurat's frame being covered), would be led to regard him as an object just recovered from a dangerous illness, whereby he had been reduced to the brink of the grave. His teeth are perfect; his powers of mastication very good, as there is no defect in the strength of the jaws. His right shoulder inclines very much downwards, while the left rises in proportion. The upper joints of the arms present nothing but bones covered with the skin, their circumference measuring just four inches; while the fore arms, on the contrary, are five inches and a half. The hands are particularly long, and the nails beautifully formed; but the fingers are contracted upwards. The muscles of the arms are, however, wasted away or contracted, so that our subject does not possess the power of elevating the hands higher than in a semi-horizontal position, and when in that attitude nothing can possibly exceed the sepulchral appearance of this living anatomy.

Perhaps one of the most wonderful circumstances attending the living skeleton is, that if measured externally from the chest to the back-bone, the distance is under three inches.

Taken round the waist at the bottom of the ribs, the body measures barely one foot eleven inches, and when the object throws its arms backwards the shoulder blade bones are scarcely one inch asunder. From the vertibræ of the back, taken between the shoulders to the centre of the loins, the falling-in is not less than five inches.

The thighs are much smaller than the legs, and like the upper joints of the arms merely covered with skin: the knees, of a reddish colour, protrude in the front and sides, forming as it were a bowl at the bottom of the thigh-bones. The legs, of which the right is the largest, merely show signs of calves, particularly the latter; and the main arteries of the exterior of the thighs and legs are large and full, which were no doubt augmented by the excessive heat of the weather.

When in France, where he ate very little if any animal food, a

penny French-roll was enough for a day's sustenance; but as he now partakes of animal diet in very small quantities, his portion of bread is reduced accordingly. As regards his feeding, those dishes which afford most nourishment satisfy him the quickest, and two or three ounces a day are sufficient. In France he was accustomed to drink the wine of his country; but in England he partakes of wines greatly diluted by water, finding the liquors here so much stronger; as the Champagne he usually drank was what is denominated *Vin du pays*, or small wine, of which we have none in this country. In eating, he masticates his victuals very much, taking small pieces, as the passage to the stomach would not admit of any great repletion; and in drinking the same precaution is required, otherwise suffocation would ensue.

His digestion is extremely good, and the evacuations of nature regularly performed—his sleep is uninterrupted, except at certain periods, when he has violent attacks of the night-mare; to dispel which his father, who always sleeps with him, and carefully watches his motions, on perceiving their approach merely touches him with the hand, when the whole subsides. His voice is by no means strong, but far from disagreeable: he has a particular passion for music, and even can sing in a faint tone; but conversation must not be kept up for any length of time, as complete exhaustion would be the consequence. When speaking, the rotatory motion through the skin of the neck is perceptible, and the pulsation of the heart conspicuous to the eye.

It is a singular fact that such is the extreme sensitiveness of this almost non-descript, or sport of nature, that when touched by the finger on the left side, the surface of the body to a certain extent was observed to manifest its sympathy by an involuntary chill, which contracted the pores of the skin, and produced that roughness of surface vulgarly known by the idea of "goose's skin."

In raising either of his feet from the floor, the limb appears to be distended uselessly from the knee, and we cannot better illustrate this idea than by that sensation we commonly experience upon allowing a limb to remain too long in one position, thereby causing a temporary strangulation of the vessels, known by the common term of the foot being asleep.

Speaking of sleep, by the bye (for the public must excuse any trifling apparent unconnectedness in this narrative, which it will readily do when apprised that we had only six hours allowed us from the time of our first introduction to the living skeleton to that of having this account in print), it reminds us of a singular statement made by his father, namely, that although he frequently dreams, and is much troubled with night-mare, in no one instance does a recurrence of his own unhappy deformation present itself to his mind; but, on the contrary, he uniformly conceives himself a most active individual, and employed upon mercantile affairs of the most urgent importance.

Previous to the arrival of this extraordinary creature in England, the French physicians who had inspected him gave it as their opinion that his lungs were placed in a different position to that usually occupied in the human frame. Since his arrival, Sir Astley Cooper, by whom he has been visited, finds that his heart is placed so much out of the common region allotted to it, that it is precisely its own length lower than if properly placed.

Many attempts were made to have Ambroise Seurat presented to the French king; but the father, con-

ceiving that he might be consigned to some miserable asylum, there to subsist on a wretched pension, uniformly objected to the idea; and indeed very justly, as there is little liberality or feeling displayed, in regard to such objects, on the other side of the Channel. From the statements made by the father, it appears that the French gentlemen of the faculty who visited his son were so unfeelingly brutal in pawing and pinching him in every direction, that the son refused to see them at all, and thence imbibed such a distaste for his professional countrymen, that he determined to show himself no more, and in consequence the Paris *Ecole de Medecine* has never been made acquainted with his existence. It was on this account the father dreaded his son's being stopped on embarking for England, as the French police pays no deference to common sense or justice where the interests of the Great Nation are at stake.

Many proposals were made to the father for the purchase of the body of his son, Claude Ambroise Seurat, in case of his demise, but he uniformly rejected the same. A medical gentleman particularly, in Burgundy, offered him a *carte blanche*, which the parent, with feelings highly honourable to himself, rejected; stating his determination that in the event of his son's death, he should be peaceably consigned to the cemetery of his native city.

While at Rouen, no less than one thousand five hundred persons flocked to see the living skeleton, during one day, on his road to England; and, indeed, so multifarious was the influx that his parent was compelled to close the exhibition, as the state of his son's constitution would not admit such a torrent of visitants.

The health of this singular being has been uninterruptedly good, except about five years ago, when he had a liver complaint, which subjected him to the application of numerous leeches, the traces of which are still visible on his skin.

His respiration is confined; being the necessary result of a contraction of the lungs; yet upon the whole he does not appear to be much inconvenienced on that account, in consequence of the little exercise he takes and the consequent quiescent state of the animal system.

In regard to the texture of the skin of this living wonder, it is of a dry, *moistless*, parchment-like appearance, which, covering any other human form, would not answer the purposes of its functions, but seems calculated alone to cover the slender juiceless body of the being whom nature intended it to array.

On the shins, nodes appear in the form of buttons, though not obtrusively to the eye; and the toes of the feet are bent over one another.

This is certainly no very inclement season to talk of remaining without covering, yet, at the same time, contemplating the spectre-like form of the object of our stricture, and considering the lengthened period he continued in a state of nudity, we cannot but express our astonishment that his system should be capable of supporting it.

This extraordinary individual presents at once the utmost contrarieties, or extreme points, of debility and power. For to the anatomist, or young student, we should not be faithful in our description, were we to omit a circumstance the most remarkable in such an uncommon and, we hope, unequalled sport of nature,—which is, that while his body assumes the tomb-like spectre of mortality, with hardly animation enough to be

called physical, it has yet, in *certain particulars*, every appearance of being capable of adding to its number. The father informs us that upon this head he was obliged to take the opinions of the French physicians, who were uniform in their advice that he should be studiously kept from all intercourse or excitement of the *nature* alluded to, or that immediate dissolution would in all human probability be the consequence of such an act. In fact, his body is of that phantom-like character, that one single effort out of the ordinary course in which it has been found necessary to train it, would appear sufficient to produce a distinct and immediate annihilation.

The ribs are not only capable of being distinguished, but may be clearly separated and counted one by one, and handled like so many pieces of cane, and, together with the skin which covers them, resemble more the hoops and outer covering of a balloon of a small size, than any thing in the ordinary course of nature.

If any thing can exceed the ghastly appearance displayed from a front view of this wonderful phenomenon, it is that presented in profile, which, taken from the projection of the shoulder, pursuing the same down through the extreme hollow of the back, and thence pursuing the line to the front of the hip, forms a complete figure of *three*. In the front appears the unnatural projection of the chest, the falling-in of the abdomen, the prominence on the left side of the body in consequence of the position of the heart, and the sudden protrusion of the posteriors, forming as it were a zig-zag human frame scarcely recognizable by the standard rules of humanity.

We come now to the action produced by the effort of the lungs, and which, strange as it may appear, does not proceed from the chest, as in ordinary cases, but from the lower extremity of the abdomen, as though the organs of respiration, from excessive laxity, had absolutely descended from their proper sphere, and that by a tenacious effort of nature, unwilling to yield possession of her functions, they had accommodated themselves by time to such an unnatural and incredible a position.

The subject is presented to view in a state of nudity, save a mere covering of several inches deep round the loins, through which are cut large holes, to admit of the hip bones to pass, for the purpose of keeping it in its proper place. When that is removed, as before hinted at, there then appears to cease all external deficiency in a certain particular. The poor fellow appears conscious of the only use that can now be derived from his crazy frame, and as though the last and only good he can bequeath to his more fortunate beholders, patiently submits to every proper examination, and readily answers any question at all calculated to elucidate his extraordinary state of existence.

On contemplating the living skeleton, we could not refrain from calling to mind a famous antiquarian engraving from the burin of Vertue, from a fresco painting formerly exhibited in Salisbury Cathedral. The print in question displays a dandy of the reign of Richard II. with a small cane in his hand, and pointed toes to his shoes of a prodigious length, while his fingers are adorned with many rings. In front of this personage, just risen from the coffin, appears a meagre carcase, representing Death, who, holding up his hand, seems to indicate that—" Gay as thou art, as I am such shalt thou be;" and such in reality is the appearance of the living skeleton who stands at once personified in the print in question.

In the temporary absence of the

medical gentlemen who superintend this work, and from the few hours allotted us to make the necessary preparations, as before stated, we have only been able to collect these particulars in the ordinary form of an unconnected narrative. Having been favoured with an *exclusive privilege* of presenting to the Public every circumstance connected with this extraordinary case, we shall in our next number present the subscribers with a professional disquisition of the topic in question, so fully calculated to rivet the attention of every member of the medical profession.

We cannot too pointedly express the sense of obligation we entertain as regards the gentlemanly conduct of Major Williams, in having thus afforded us an opportunity of becoming the first organs of communicating to the world a correct and authentic detail of a case so singularly curious in all its bearings, so truly interesting to the cause of anatomical research, and hitherto unprecedented in the records of human nature.

As no precise place has as yet been fixed for the intended exhibition of the above curiosity of Nature, we have authority to state that the earliest intelligence may be obtained by application at the Medical Adviser Office, Paternoster-row.

FURTHER ENQUIRY

INTO THE CASE OF

CLAUDE AMBROISE SEURAT,

THE

LIVING SKELETON!

BY MR. MAGINN, SURGEON.

It is clear that this case exhibits no deformity whatever, nor any apparent derangement of the functions necessary to life. The heart executes its actions properly; respiration is carried on unimpeded, except by the exhaustion attendant upon all cases where general debility is present; and the brain is in full power. Hence, the causes of this extraordinary wasting must be looked for otherwise than in derangement of these leading organs of life. If the heart were the seat of the disease, the pulse would readily lead us to that point. If the lungs were the cause of this debility, the respiration would point it out; and the face, instead of its present emaciated and tranquil appearance, would exhibit some degree of lividity; (unless it were an ulcer in the lungs, which is, by the present symptoms, out of the question;) and if it were occasioned by a disease of the brain, (and the only disease the brain is capable of producing in such a state of the body is *Melancholia*,) the accompanying symptoms would be sufficient to decide.

When the case of Claude Ambroise Seurat is called a *lusus naturæ*, I think it does not warrant such an appellation; for it would appear that he was born healthy and well formed. It is, in my opinion, clearly a disease, and the origin and nature of that disease is the object of my present remarks.

It is said that Sir Astley Cooper has assigned as *his* reason for this disease, that the heart is misplaced, or something to that effect; now as I did not hear that skilful surgeon deliver such an opinion, I will not believe it, notwithstanding that powerful authority has quoted it for fact: if I did, I should be doing him an injustice. Let the heart be placed where it may be, (I am supposing a case,) yet while it continues to act as well as in the case of Claude Ambroise Seurat, it will distribute its blood to the extremities of the body, and supply the muscles with a stream quite sufficient for their nutriment, provided that the blood be of *proper quality*. To the *quality* of the blood then we are to look for the cause, and not to the machine (the heart) which propels it in its circulation.

The quality of the blood may be altered by the air we breathe—it may not be sufficiently oxyginated; but when this is the case, symptoms of

diseased or malformed lungs are very evident—which is not the case in the present instance. The alteration of the quality of the blood, then, must be sought for elsewhere, and no where, I am of opinion, with more propriety, than in the fluid from which it is formed. This fluid is called *chyle*, that is, the first compound made in the process of digestion from the nutritive matter which we draw from the food, for our natural subsistence. It is clear, that if this subject could form good and sufficient chyle, and that that chyle were taken into the blood, through the thoracic duct; admitting that the heart performed its action—even the action it does perform, that would be enough to furnish the muscles with nourishment sufficient to support their natural size and action. Hence, we come to the probable and proximate cause of the disease, namely, a *deficiency in the quantity of the chyle.*

It is evident that there is a deficiency in the quantity of the chyle, by the fact of his eating so little, and thus we are led to examine *why* he eats so little.

We see no cause for the loss of appetite; no malformation of either heart or lungs: therefore the stomach may not be supposed to sympathize with derangement of these parts. It is more likely to be the *cause* or a *part of the cause*, than the *effect*.

I am fully of opinion that this is a case of MARCORES, *occasioned by an early obliteration of many of the lacteal vessels and mesenteric glands, or a preternatural deficiency of these vessels and glands, with a consequent early sympathy of the stomach.*

To explain this definition to the ordinary reader, it will be necessary to say, that the lacteal vessels and glands are the medium through which the chyle is taken up into the blood; thousands of these little vessels are employed in sucking up the pure chyle prepared in the intestines from the food, and in transmitting it to one channel called the thoracic duct, which empties its contents (a white milky fluid) into the juncture between the left internal jugular vein and the left subclavian vein. This is sufficient to give a strong idea of my definition of the disease, and I stake my opinion upon it fearlessly. Should we hereafter have an opportunity (we hope remote) of obtaining a correct report of the appearances after death, it will, I am firmly of opinion, support my hypothesis.

Muscles must be supported by good blood, and a sufficient quantity of it; good blood must be furnished by good chyle, and a sufficient quantity also; the want of this supply will produce wasting. In the present case, there appears to me to be no cause but that which I have laid down.

I shall refer to a simple fact to illustrate the hypothesis I have endeavoured to establish; and that is, the wasting of the vegetable called *green cole*. Whoever has observed a garden-bed of them, must remember that they are, for the most part, large and strong, growing to a considerable height and extension; yet there will be found amongst them several that are scarcely three inches from the ground, and, although in life, evidently wasted. Examine the roots of the latter, and it will be found that they are diseased and obliterated: these roots are to the vegetable what the *lacteal vessels* are to the man.

This case is decidedly *atrophy*, or *tabes mesenterica*, only that instead of an acquired disease of the mesenteric glands, it is a *preternatural deficiency in them.*

The following is the description of atrophy given by Dr. Thomas, and it will be seen that it resembles this case in every thing but the remote causes:—

"This disease is marked by a gradual wasting of the body, unaccompanied either by a difficulty of breathing, cough, or any evident fever at first, but usually attended with a loss of appetite and impaired digestion, depression of spirits, and general languor.

"The causes which commonly give rise to it are, a poor diet, unwholesome air, excessive venery, scrofulous disposition, fluor albus, severe evacuations, continuing to give suck too long, a free use of spirituous liquors, mental uneasiness, and worms; but it frequently comes on without any evident cause.

"Young persons of both sexes, of a delicate make, and who at the same time grow very fast, are apt to be attacked with this complaint before they arrive at the age of puberty. It is particularly prevalent in large and populous cities, where children are deprived of ready access to exercise in the pure air, or where they are confined in crowded school-rooms. Children, also, who are employed in manufactories, where their occupation and confinement are such as to weaken and enervate them, are very likely to be attacked with it.

"Emaciation of the body very frequently arises from a morbid state of the mesenteric glands upon the chyle. *We are warranted in assigning* this as the most frequent cause of bodily emaciation in children, seeing that the two states are almost invariably associated."

THOMAS's *Practice of Physic.*

This case decidedly exhibits the greatest degree of emaciation I ever witnessed except one, which was that of a soldier who died at the British Military Hospital in St. Andero, under my care, of *chronic diarrhœa;* and this, on dissection, proved to be a total obliteration of the mesenteric glands and lacteal vessels.

The weight of Claude Ambroise was, on the 4th inst. in his clothes, 84¼lb: naked, 77¾lb. which Mr. Williams, the Publisher of The MEDICAL ADVISER, ascertained by weighing him at Souliers and Co.'s, tobacconists, Burlington Arcade. This weight of body, small as it is, in my opinion, cannot continue any considerable length of time to exist on the supply of nourishment which it now receives; and unless the powers of the stomach and lacteal vessels increase, the man cannot exist.

In the Report upon this singular case, which appeared in the 6th Number of The MEDICAL ADVISER, the public have an historical account of the individual, containing all that could be learned from the lips of himself or his father. However, an intelligent correspondent in The SCIENTIFIC GAZETTE, has written an excellent descriptive Sketch, which we shall here transcribe, in order to lay the fullest picture before our readers.

MR. WOOD's LETTER,

IN THE SCIENTIFIC GAZETTE.

"SIR,

"IN accordance with the promise given to you in the past week, I proceed with pleasure to offer a more detailed account of the singular foreigner, than the haste of my last could possibly admit: previous to commencing the narrative, allow me to observe, that I have, as much as could be done, avoided useless indulgence in technicalities; aware that they only serve to embarrass the general reader.

"The name of this curious being

is Claude Ambroise Seurat, born on the 10th of April, 1797, at Troyes, in Champagne. His mother was a woman of good health, and experienced neither fright nor accident during the term of gestation; so that no part of his malformation and consequent state can be accounted for by external causes. According to the statement of his father, (the mother is dead,) he presented nothing extraordinary in his appearance at the time of birth; though in my own mind I have no doubt but the same malformation was existent then, which is so apparent now. He continued growing until the usual term of life, and concomitant with that growth, were his depletion and loss of muscular power.

"Upon entering the room, a stooping posture of sitting, attenuated hands, sunken eyes, and meagre face, tend strongly to impress the mind of the visitant with an idea that Seurat has just emerged from the couch of long-continued illness. With regard to individual features, they are, however, perfect, and such as, if lit by health and excitation, would afford a face of considerable attraction; his eye is dark and full, and the tunica conjunctiva of a beautiful whiteness; but the effect of this organ is rendered painful to the beholder by that expression of anxiety and glaziness so generally observed in persons labouring under phthisis; his teeth are good, and his capability of mastication suited to his need, though he soon tires of this, as of every other muscular exertion, preferring for his diet that which calls for the least effort of the masticatory muscles.

"I might here mention, that on Sunday last I was with him at the time of dining, when he took soup (vermicelli, I believe,) to about the amount of four table spoonsful, eating the eighth of a penny French roll with it: this, with the half of a small glass of cider, constituted the whole of his repast. He appeared anxious for the meal, but by the time he had eaten half the specified quantity, his appetite evidently decreased. He is able to feed himself by bending his head down half-way to the table, where the fore-arm rests; but when requiring drink, his step-mother (who is most kindly attentive to him) must supply him, as he cannot raise the glass to his mouth. His sleep is mostly sound and good, occasionally, only, interrupted by oneirodynia, commonly known by the term nightmare; his digestive powers seem quite efficient to the task assigned to them, and the state of his body is regular. The pulse, whenever I have examined it, has been full and oft, and of a natural acceleration. On Sunday, it was increased a few beats after his dinner.

"He converses in good French, and with considerable vivacity, appearing, however, exhausted if continued many minutes: he did not, according to his own account, experience the slightest inconvenience from sea-sickness, during the passage over: indeed I almost doubt whether he has muscular power sufficient to eject the contents of the stomach; at any rate the effort would be attended with great risk to himself.—His general health they state to have been good, but he has laboured formerly (five years since) with a liver complaint, and also an attack of pleurisy. At present he is perfectly free from any bodily affection; though I much fear the inequalities of temperature experienced in an English winter, and the frequent exposure he is threatened with by exhibition, will tend to produce disease of the lungs.

"Having thus afforded you a general description, I shall proceed to a further cognizance of him when presented to you in a denuded state. Of his appearance when placed before you thus, language must fail to convey a sufficiently correct or forcible picture. I therefore refer you with great pleasure to the effective effort of Mr. Cruikshank's pencil, and which

I was only able to avail myself of through the liberality of the Proprietors of The MEDICAL ADVISER, as they had just previously possessed themselves of his superior talents.—The height of Seurat is five feet seven inches and a half, and his limbs are in good longitudinal proportion, and in that only. When he enters the room, you observe the effort with which he walks, apparently having little or no power of propelling the extremities forward; his action partakes something of the appearance termed in horses the string halt, and may be best described by comparing it to the uncertain efforts of a very young child in walking. When he stands fronting you, the eye is arrested by the extreme concavity of the sternum, and the curious bowing out of the ribs, protruding in an increased bend towards the inferior costæ. This flattening of the sternum has very much contributed to that appearance of respiring from the lowest part of the abdomen, as the depression allowing of little expansion in the thorax, and hardly any action of the respiratory muscles, the whole of the abdominal muscles are necessarily drawn upwards or inwards, which we may demonstrate partly on ourselves, by taking what is called an inward breath.

"With regard to the lungs, I am of opinion, from the use of the tethrascope, that there is a cavity in the right lobe, the result of tubercular absorption, as pectoriloquy was plainly distinguishable, while the left lobe appeared perfectly sound. A physician of growing eminence, and an intimate acquaintance of Laennec, the discoverer of this decidedly useful instrument, who was present with me, concurred fully in this opinion. The heart presents nothing wonderful in its action; no impulsion, no tendency to enlargement, and not materially out of its natural position. The pulsation is distinctly visible, though not much more than may be seen in persons wasted by long disease; the liver is plainly discernible below the margin of the ribs, and is both enlarged and indurated, most likely the consequence of former disease, probably inflammation, as there are marks remaining of a plentiful application of leeches. The abdomen presents a contracted and wasted form, the very reverse of the *aldermanic*. This is, however, matter of little surprise, as the small quantity he eats and drinks precludes all possibility of distension; the pelvis, owing to this and the deficiency of muscular attachment, has an appearance of great capacity, and the insertion of the head of the femur (thigh bone) is plainly discernible; the whole of the superior spine of the ilium is easily traced, and the figure of the ischium (haunch bone) is discerned with facility, having little more than a cuticular covering: the glutei muscles have dwindled almost to nothing, and the os coccyx can be traced, by the eye, to its extreme point.

"Yet amidst all this waste, or rather want of muscular matter, we find the organs of generation in a full and vigorous state; why these should not have shared in the general atrophy, is a matter of curious inquiry. When turned round, to obtain a posterior view, the scapula immediately attracts attention, as observable in a position varying from the natural, being considerably elevated by the trapezius muscle, which is strengthened from continual use, and is more strongly defined than the other muscles; every minutiæ of the scapula (blade bones) are discernible; its glenoid cavity, with the insertion of the humerus and the acromion articulation with the clavicle, &c. When the scapulæ are made to approach each other, the fingers can almost pass down between the posterior edge and the back: there is in the spine a considerable lateral curve, and a protuberance in one of the cervical vertebræ.

"Continuing to view the body downwards, we observe the extraordinary deficiency of the thighs, there

being scarcely a trace of muscle; the vastus externus, internus, gracylis, rectus sartorius, &c. are not definable: the knee-joint has the appearance of great size, arising only from the shrunken state of the muscles that should envelope the cylindrical bones. The leg presents a less miserable appearance than the thigh, although very deficient; in the right leg there is more muscular developement than in the left, having something approximating to the usual expanditure of the gastrocnemei. The skin over the knee-joint has a reddish fleshy tint, not unlike the effect produced by cold weather on a hand that has been exposed. In the foot there is nothing peculiar beyond its being apparently too large. The left foot, I believe, has a bunion on the base of the great toe; and there are also two or three small nodes upon the shin bones. Recurring to the humerus, it is found, upon admeasurement in the thickest part, not to exceed four inches in circumference, having a still greater depletion of muscular fibre than in the neighbourhood of the femur.—There is hardly a trace of the deltoid and biceps flexor cubiti. The fore-arm measures five inches and a half in the thickest part, and there is a tolerable supply of muscular power to the hand, which may be attributed, perhaps, to the greater use of this part. The hand, if well covered, would be handsome, the shape and nails being very good, but the limb is disfigured by thinness and a considerable contraction of the fingers in an upward direction, making the knuckle form an angle with the last joint. Taking a lateral view of the body, there is nothing observable beyond the great curves of the figure, totally at variance with all the rules of the *beau ideal*; but here a reference to the outline of Mr. C. will avail you far more than any description I can pen. There only remains now to notice the head of this singular being, who to be fully appreciated must be seen. Could I venture so far on your very valuable columns, I should feel disposed to enter into a complete phrenological view of Seurat's head, but I dare not trust myself in so fertile a field. I must therefore content myself with observing, that he is not deficient in size, and that many of the organs are fully developed and active: the organ of amativeness has a very considerable development, and he has suppressed its impulse, upon the assurance that the attempt to gratify its stimulus would be in all likelihood fatal to him. Among the most developed organs I found true firmness and courage:—but upon this interesting topic I must forbear, only observing further, that there is no intellectual deficiency discoverable either in organization or converse.

"After having taken this view of him, it becomes a natural question to inquire, what are the causes conducive to this state of atrophy. I feel aware that much ingenious hypothesis might be indulged in, but dismissing such, and seizing only the most tangible points, I feel inclined to refer it to the general deformity of the thorax, and the compressed action of the lungs, conjoined with some peculiar constitutional idiosyncrasy, the circulation being, as far as the main vessels are concerned, plentifully carried on.

"His temper appears to be passive and kind, submitting himself to examination with ready patience, and answering every question with cheerfulness. Indeed, his demeanour and appearance are calculated, even in the least thinking breast, to excite the deepest commiseration and pity.—Alas! with every idea of the enjoyments of life, he is debarred the participation of them, and compelled to a state of living death:—

"'Lethe's gloom without its quiet.'

"I remain,
"Your's obliged,
"F. Wood."

The following remarks are extracted from a small pamphlet by Mr. Manning, with which we shall close this subject.

"The neck, on being examined from before, appears short, flat, and broad. The shortness is principally owing to his inability to hold the face properly elevated, in consequence of which the chin drops down, and conceals the upper part of the neck.—The flatness depends on the little muscular and cellular substance present, and on the great breadth of the neck, which takes from its natural rotundity. This great breadth is caused by the peculiar form and situation of the scapulæ, the upper angles of which, instead of laying on the posterior portions of the uppermost ribs, are turned over the shoulder, and pass so far forward, as nearly to reach the middle of the clavicles, where their situation may be easily seen from before. Of course the muscles called levatores scapulæ, which arise from the upper vertebræ of the neck, and usually pass downwards, and a very little outwards, — in this case, pass very much outwards, in a direction towards the shoulder joint, and extend the neck considerably in a lateral direction.

"The larynx, as far as can be judged of, from an external examination, is well formed; and that protuberance of the thyroid cartilage called pomum adami, prominent.

"The formation of the upper extremities and chest, is one of the most remarkable features of this man. The left scapula is higher than the right; both are remarkably prominent; so much so, that when viewed sideways, there appears to be a large tumour underneath the skin, over the lower angle: this arises from the great projection of the lower angle itself from the ribs. It has been already stated, that the upper angle is placed unusually forward; and at the bottom of the neck, from this point, the scapula proceeds backwards, and to permit its closer application to the upper and back part of the chest, its concave surface is remarkably curved, but still not sufficiently so, to prevent the lower angle from projecting in an unseemly manner. This arrangement of the component parts of the scapula and its muscles, interferes very much with the freedom of its movements, particularly the rotatory ones, which in other subjects are so varied.

"Seurat can raise his hands and arms up from his sides, in a lateral direction, to a position nearly horizontal. He cannot, however, pass them far forwards, when thus elevated. He can throw the scapulæ backwards, so as to make them almost meet at the lower ends.

"The humerus or upper arm, appears quite destitute of muscle, and as if it consisted of bone, skin, vessels, and cellular membrane only. It may be remarked, however, that at that part where the biceps muscle is generally, there is a trifling fulness, probably caused by a few fibres of that muscle. When compared with the inner-arm, the elbow joint seems considerably enlarged, but in fact is only of natural dimensions. The muscles of the fore-arm, though very small, may, nevertheless, be traced. The hands are perfect in appearance. Seurat, however, cannot straighten his fingers, but keeps them in a curvilinear position; with this exception, he can use them freely.—The Proprietor of The MEDICAL ADVISER begs to observe as a proof of this, that on Thursday morning, when he took him to be weighed, he saw him in the act of fastening the back part of his step-mother's gown.

"The trunk is singularly shaped. Viewed from the front, the chest is not particularly narrow; it measures from one shoulder to the other, across the sternum, sixteen inches. The sternum is much flattened, as though it had been driven inwards, towards the dorsal vertebræ. In well formed people this bone is a little convex

externally, and concave internally, permitting all possible room for the thoracic viscera. In Seurat, however, this order of things is changed, the outer surface of the breast bone being concave, and the internal convex. It is pushed so far inwards, as scarcely to leave more than an inch and a half or two inches between itself and the opposite vertebræ.

"This position of the sternum, and of the ribs, may probably afford an explanation of the causes which produce a slight impediment to his swallowing with dispatch, or such morsels as are not cut very small; and of the unnatural situation of the heart, which instead of being placed behind the 3rd, 4th, and 5th ribs, is observed pulsating very low down behind the 7th, 8th, and 9th ribs, in the situation of the left hypochondrium. The five or six lower ribs, called false or floating ribs, are rounder, and approach nearer to nature in their relative position, thereby affording sufficient space for the heart, stomach, and liver, and some other of the abdominal viscera. It is conceived, the upper part of the chest being formed as it is, that without this open sweep of the lower ribs, life could not have been maintained; so much would the functions of the heart and chylopoietic viscera have been interrupted. The false ribs descend very low down on each side, there being scarcely one inch and a half between them and the crest of the ilium. The pelvis is capacious, and on its front aspect presents nothing extraordinary.

"There is an appearance of the abdomen, which must not be passed over. When looking at it, one might almost suppose that it consisted of two cavities, an upper and a lower one, so much is this poor fellow contracted round the loins. The following admeasurement may afford some idea of this circumstance.

	FT.	IN.
Circumference of the chest, directly under the armpits	2	6¼
Lower down and opposite the second false rib	2	2
Round the loins	1	9
Round the pelvis	2	3½

"The muscles of the sides of the pelvis partake of the general wasting; in consequence of which the trochanters stand out from the glenoid cavities in the same gaunt manner that they do in the true skeleton, being covered by integuments alone. The thighs are imperfect in bulk, and the knees, like the elbows, appear enlarged. The calves of the legs seem to have more firm good muscle than any other part of the body, particularly that of the right leg, which is rather more fleshy than the left.

"The examination of the back part of Seurat's body corresponds with the front as far as the general leanness goes. The occiput is flat, the neck broad, the scapulæ projecting, the spine crooked, some of the lower cervical vertebræ are curved backwards, and there is a curve towards the right side, formed by some of the lower dorsal vertebræ. All the bony points of the back part of the body are so prominent, that every individual bone may be distinctly traced by the eye, even at a considerable distance.

"As to the qualities of his mind, we may say that he comprehends quickly, and his memory is tolerably retentive."

The Public are here presented in two thirds of a sixpenny number with the whole of the original matter of this extraordinary case; and which published in any other shape, would cost them ten times as much. The publisher has been indefatigable in possessing himself of every particular, and has now the gratification of laying before the medical Student the only entire and correct account published of this unusual appearance of human nature.

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